Imagining Information: The Uses of Storytelling

by

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We acknowledge with respect the Lekwungen peoples on whose traditional territory the university stands and the Songhees, Esquimalt and W̱SÁNEĆ peoples whose historical relationships with the land continue to this day.

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Abstract

This thesis investigates a *cultural logic of information*. In a world saturated with information, how is representation defined, and what kinds of boundaries does it consequently set up for establishing what can be known? I argue that a cultural logic of information articulates a common cultural definition for representation: information is understood as either a "true" representation of reality, or a substitute for reality itself. As a result, information comes to be conflated with knowledge. But, in contrast to calls (scholarly and otherwise) to police the boundaries of information, I argue 1) that information is exceedingly difficult to separate, in kind, from *storytelling*, because 2) the provision of information almost always entails scrambles for narrative representation, which 3) are always staged in the terms of genre. The function of these conclusions is the constant undermining of this cultural logic. I examine the intersection of a variety of cultural and theoretical objects, including: Fox News and "Make America Great Again"; scientific modelling of climate change; Claude Shannon's mathematical theory of communication; Karl Ove Knausgaard's *My Struggle*; YouTube "lifestyle" communities; and the documentary "The Act of Killing." I suggest that a methodology that accounts for the imbrication of information and storytelling better accounts for the vicissitudes of, and ideological struggles over, these cultural phenomena. It does so, in particular, by engaging with the subjective *experience* of information, and assessing how subjects *imagine* their relations to information and to networks. The purpose of this argument is to intervene in conversations about the articulation of life in control societies.

Table of Contents

Abstract iii

Table of Contents iv

List of Figures v

Introduction: Information or Story? 1

Chapter 1: "The Storyteller" and Experience 10

I: Walter Benjamin and Experience 10

II: The Usefulness of Storytelling 18

III: Storytelling and Genre 23

Chapter 2: A Cultural Logic of Information 29

I: Tracking the Cultural Logic 31

Chapter 3: Witnessing the Network: Storytelling and Context 54

I: Experiencing, Imagining Networks? 55

II: "Listing the Items that Come By": *My Struggle* and the Network 60

III: Our 4K Binaural YouTube Community 68

Conclusion: Representing the Unrepresentable 82

Bibliography 90

List of Figures

Figure 1: Fox News 1

Figure 2: “Schematic diagram of a general communication system” 35

Figure 3: Graphika Visualization 57

Figure 4: “My Montreal Apartment Tour!” 71

Figure 5: “NYC APARTMENT TOUR” 72

Figure 6: “96 HOUR CALL SHIFT: Day in the Life of a Doctor” 72

Figure 7: “VAN TOUR after 2 years living in our TINY HOUSE on wheels” 1 73

Figure 8: “VAN TOUR after 2 years living in our TINY HOUSE on wheels” 2 73

Introduction: Information or Story?

Figure 1: Screengrab from Sean Hannity segment on Fox News.[1]

What is the value of information? Let me address two examples.

Late November, 2019. There was no quid pro quo. At least, that's what the Fox News chyron underneath anchor Tucker Carlson read. The American Democratic party, in their attempts to impeach the president, Donald Trump, had failed. Barely able to conceal his glee, Sean Hannity, another Fox News anchor (and a presidential confidant), could be seen pictured alongside the graphic "IT'S A SHAM": the words in all-capitals, "sham" in fire engine red (Figure 1). There was no doubt, as another graphic read, that impeachment proceedings were nothing more than a malevolent "scheme"—politics at its worst. To watch Fox News at that time

[1] Matt Gertz, "Fox's alternate reality after Wednesday's devastating impeachment testimony," *Media Matters For America* (November 21, 2019).

was to be sure of one thing: the information undeniably and incontrovertibly showed that there was no quid pro quo. And yet, if one were to exit the Fox News studios in Midtown Manhattan, take the elevator to the ground floor, and walk next door to the NBC studios, the information one would have received would have been exactly the opposite. At NBC, everybody was talking about the American Ambassador to the European Union, who had said, verbatim, that there *was* a quid pro quo. Pretending, for a moment, that you were utterly naïve in your relation to the American political landscape in 2019, who might you believe?

This question and problem of belief, in relation to the information provided, has also factored heavily in ongoing attempts to mobilize the general human population to convince nation states and corporations to take action to mitigate the effects of climate change. It is too simple (and altogether ignorant of the roles of wealth and power) to argue that the infamous "climate change sceptic" is solely responsible for human inaction to date. But this figure has nevertheless had an outsize role, not the least because of the truism that "one always needs to hear both sides of the story." Thus, in much the same way that evidence of the dangers of tobacco use was, for years, counteracted by cigarette corporations, the apparently incontrovertible proof that climate change is not only real but direly imminent has been counteracted by an alliance of oil corporations, political sceptics, and other climate scientists. Once more, information that undeniably and incontrovertibly seemed to reveal *the* truth does not seem to matter enough.[2] Who, I ask again, might you believe?

To frame the apprehension and comprehension of information in the terms of believing, then, is to ask an altogether different question of it. What *is* information, in the first place? In both of the examples outlined here, information seems to hinge on its truth value, a stipulation

[2] This problem is addressed in depth by Wendy Chun in "Hypo-Real Models or Global Climate Change: A Challenge for the Humanities," (*Critical Inquiry* 41 [Spring 2015]: p. 675-703).

that does not find a point of consensus. What's more, believing would seem to be beside the point. It is not that one believes that there was a quid pro quo, but that, presented with the necessary information, one *knows* there was a quid pro quo. This slippage, from belief into knowledge and back again, has, in recent years, come to be identified as a "post-truth" condition.[3] The argument suggests that the informational landscape is marred by "disinformation," vulnerable to manipulation, and culturally at risk of falling prey to the trappings of ideology. This project does not dispute the general structure of that claim, but it does seek to investigate it more closely. Rather than set up an opposition between "real" information and truth, and "fake" or false consciousness, and, rather than stage that opposition solely in the dominant terms of American news media, I want to instead pull many of these claims together under the wider heading and scope of what could be called a *cultural logic of information*. A cultural logic of information entails a belief in the supremacy of information. It does so, in part, by conflating information, truth, and knowledge, and, unlike amongst the ostensibly more sectarian trappings of ideology, this cultural logic is capable of appearing in the most unpredictable and generalizable of places.

But, before continuing to lay out the claims that this project intends to make, having outlined something called information, its contested relationship to truth and to knowledge, and its potential foundational role in a cultural logic, let me pause for a moment, and explicitly define information itself. Information itself is *not* the same as its cultural logic. A pithy definition of

[3] For a survey of how scholars tend to confront post-truth and disinformation, especially in non-humanities fields, see, in particular: David Karpf, "On Digital Disinformation and Democratic Myths," *Social Science Research Council, Mediawell* (December 10, 2019); Jayson Harsin, "Post-Truth and Critical Communication Studies," *Oxford Research Encyclopedias: Communication* (December, 2018); Ellen P. Goodman, "Digital Information Fidelity and Friction," *Knight First Amendment Institute* (November, 2019). Harsin provides a neat synopsis of some of the problems that academic and popular studies of the relationship between truth and information face: "These studies frequently end up reproducing a kind of panicked realism, nostalgia for the mass communication age, especially for journalistic gatekeeping, and result in prognostic guides for media literacy and journalistic fact-checking."

information as a point of consensus is not so inevitable, at least in part because the word means different things in different contexts, and those changes in context provide different referential frames according to which a definition may be sketched. Acknowledging these different frames, then, let me point to three that matter here, which may broadly be construed as an *etymological* definition, a *communicative* definition, and a *common-sense* definition.

Etymologically, the word "information" stems from the act of being put into form. As Alexander Galloway has argued, this etymology differentiates information from data. The latter word refers to "the things having been given," suggesting that data involves "the empirical proffering of measurable or otherwise observable fact that has been given forth. Something has already taken place and, via a gift or endowment, it enters into presence."[4] Information, because it stems from the act of being put into form, is different from data: "information stresses less a sense of presence and giving-forth, and more a plastic adoption of shape."[5] Thus, in theory, data comes first (the world is empirically observed and recorded), while information comes second (data is put into a form that communicates the outcome of said observations). According to this etymological definition, information, even if its primary qualia are aesthetic, is determined to be *objective*. In other words, the acknowledgment of the truth of a "there was a quid pro quo" statement is an objective one, based in empirical observation, and therefore may be extracted as the "proper" form. In recent years, the givenness of this relationship has been challenged—a point to which I will return in Chapters 2 and 3. For now, suffice it to say that information, by shaping or putting things into form, is a form of representation. More specifically, information, as a representation, is a type of meaning extraction. So, for Fox News to claim that there was no quid pro quo, a specific form of meaning *qua* information had to be extracted from impeachment

[4] Alexander Galloway, "Are Some Things Unrepresentable?" (*Theory, Culture & Society* 28, nos. 7-8 [2011]: p. 87).
[5] Ibid., p. 88.

proceedings as they were empirically observed. And it was—"it's a sham" was, here, information.

This notion of the extraction of meaning matters, too, to a communicative definition of information. This latter definition can be traced to Claude Shannon's canonical 1948 work on the relationship between information and communication.[6] Shannon sought to develop a mathematical theory for electronic communication. The semantic meaning of communication (i.e. the contents of a message), however, did not matter to him; what was to be extracted was simply a signal from noise. The operation of every machine, and every act of communication, produces random noise, and Shannon defined information in terms of negative entropy, that is, as the freedom to select a given message from the noise that a system produces. So, if you and I are to speak on the phone, our ability to transmit information, according to Shannon, is a result not of the contents of what we say or whether we understand each other, but the ability of the machinic system to isolate our transmission for us. Unlike the etymological definition of information, we would rely not on what meaning we extract from each other, but on how, at base, our transmission is selected for us out of the manifold other transmissions and noise occurring amidst the telephone system. In this way, it is possible to recognise how a climate change sceptic may be perceived, not as a snake oil salesman, but as a purveyor of information: what matters here is not information in terms of its semantic intelligibility, but information as the selection of one signal from another.

And yet, in spite of the differences between information as meaning extraction, and information as signal selection, both, in a way, may nevertheless be construed to rely on representation as it is the identification of a phenomenon that requires subsequent

[6] Claude Shannon, "A Mathematical Theory of Communication" (*The Bell Systems Technical Journal*, 27 no. 3 [1948]: p. 379-423).

comprehension. This acknowledgement proves key to a third, common-sense definition of information that I want to introduce here. In this final frame, information, as it forms a representation, can be defined as a kind of recipe for understanding. It is according to this logic that information may be conflated with knowledge. A recipe in a cookbook provides you with a list of ingredients, their quantities, and how and when to combine them. In other words, it would seem that this information helps one to *know* a recipe, in an *objective* sense. To be sure, this conclusion is not incorrect—information can and does lead to the development and transmission of knowledge, and vice versa. But it is not knowledge, per se. Information, as representations or forms of meaning, does not have to be "true" to be real. Both "there was no quid pro quo" and "there is no such thing as climate change" are real types of information, even if they are not true, because they constitute the shape of the meaning extracted, or the selection of a particular message from noise. This troubled relationship between what is true, what is known, and what is real, often comes to the fore in any common-sense definition of information.

Indeed, there seems to be bitter debate wherever information goes. The imbrication of each of these definitions, as well as several other elements, works to develop a cultural logic of information (a topic I address in greater depth in Chapter 2). It is for this reason that I see little value in setting up an opposition between "real" information and truth, and "fake" or false consciousness. Instead, I want to make something of an uncommon move in relation to much of the contemporary scholarship on information.

Often, the solution to disputes over information is argued to be the need for more, better information, or, more simply, a throwing upwards of the hands in incredulity.[7] How could

[7] Perhaps the most ubiquitous example of this process is the "fact checker," which tends to operate through dominant media channels like *The Washington Post* or *CNN*, which may be found simply be googling "fact check." So, a politician will make a claim, at which point a journalist will present this claim alongside "the facts," and after which they will award the claim a fact "score" that differentiates between truth and lie. While the intentions behind

someone possibly hear the statement "there was quid pro quo" as its opposite? Perhaps they need more information, which will help them to know more, and ultimately prove the truth. In practice, this solution has, so far, failed miserably, and I am willing to wager that it is because it places all of its eggs in the basket labelled "information." Instead, I want to contrast information to *storytelling*. That is, in the two examples addressed at the outset, the question would not be "what is the value of information?" but, instead, "what's the story here?" Storytelling has its own relationship to truth and to knowledge. Over the course of this project, I hope to demonstrate and expound upon two claims. First, the ability to differentiate information from storytelling is exceedingly difficult, for both, as I have begun to elucidate, ultimately hinge on theoretical and political questions regarding representation. How is representation defined, and what kinds of boundaries does it consequently set up for establishing what can be known? How do those boundaries establish information and storytelling as different in kind? Second, and, as a result, a *cultural logic of* information can be understood as a grand or a meta- story about the powers and possibilities of information,[8] the stakes of which are the difference between experiencing life as controlled and safe, or disastrous and dangerous.

Why do control and disaster matter? Because living in networked societies—especially those that always seem to be, at best, one step away from unmitigated crisis and catastrophe—is

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this process may be good, they tend to assume that facts, and for that matter, information, are ahistorical and universal truths, whose presentation will draw debate to a close, like a judge striking their gavel at a sentencing. Unsurprisingly, these efforts usually fail. Worse, they tend to find justification for their failure in the "stupidity" of others. Though this development may be treated in Anglophone Western countries as recent, debates over "fact" and "fiction," and the pejorative dismissal of the latter, are not new; see, for example, Bruno Latour, "Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern" (*Critical Inquiry* 30 [Winter 2004] p. 225-248). To be sure, these debates also turn on the function of "expertise": what constitutes expertise, and who may be said to be an expert, which, in this instance, means an authoritative purveyor of facts? See, for example, Eric M. Conway and Naomi Oreskes, *Merchants of Doubt* (New York: Bloomsbury, 2010).

[8] In this instance, the reader would not be remiss in noticing an affinity between a cultural logic as a meta-story, and Jean-François Lyotard's conception of the "meta-narrative" in *The Postmodern Condition* (Minneapolis, University of Minnesota Press, 1979).

not so simple. Network societies are best described, as I go on to argue, less as a series of real and theoretical relations contingent on nodes (which is true, but reductive), than as a total overabundance of context(s).[9] At the risk of enabling a truism, there is simply *so much* happening, all the time, and information technology enables networks to be perceived and apprehendable beyond the bounds of immediately experienceable physical sensation. The consequence of this extension of apprehension—and, by extension, comprehension—is not only a shift in the terms of experience, but the unwitting sense, simply by virtue of the overwhelming mass of an overabundance of context, that the line between control and disaster is thinner than ever.

In a scenario where information is conflated with truth and knowledge, that protective line would seem to widen according to the provision of information. And yet, that is not the case (Donald Trump has not been impeached; no apposite global efforts are being made to combat climate change). What's more, even when information is amply provided, it doesn't seem to matter. In support of the two claims made previously, then, this project makes two critical arguments. First, the provision of information *almost always entails scrambles for narrative representation*. That is, it is not that information wants to be free, but that whomever encounters it wants to comprehend it in recognizable terms. Second, when those scrambles do occur, they are *always staged in the terms of genre*. In other words, information begets storytelling, whose terms turn, perhaps unsurprisingly, on cultural expectations (I will go on to define genre in greater detail in Chapter 1). In neither the case of American politics, nor the changing climate,

[9] As Wendy Chun writes, in *Updating To Remain The Same* (Cambridge: MIT Press, 2016), "The study of networks…oddly mirrors its subject, for the examination of networks leads to the formation of ever more networks, making it difficult to separate network analyses from networks themselves" (25). This is not to suggest that networks do not exist, or may not be characterized as relations between nodes, but that networks, as they are both thought and experienced, will tend to exceed themselves, an excess that may be thought as the overabundance of context(s).

does information, deemed to be both true and knowledgeable, seem to matter. Instead, stories seem to take precedence. "The Enlightenment model," argues Wendy Chun elsewhere, "which framed good action as stemming from correct knowledge and experience, no longer holds."[10] In a cultural logic of information that conflates knowledge and information, information, it would seem, no longer holds. In what follows, I want to lift that premise up to the light.

[10] Wendy Chun, "Hypo-Real Models," p. 678. Chun turns toward *habit* as both central to and offering an escape from the positive expressions of neoliberal forms of control. Although she does not expand upon this point, the notion that habit is "ideology in action" (701) is a frame of particular interest for some of the questions that will follow in this essay. Chun concludes the paper by calling for the primacy of passion over habit, and I would like to draw a parallel between "passions" and storytelling.

Chapter 1: "The Storyteller" and Experience

I: Walter Benjamin and Experience

In "The Storyteller: Reflections on the Works of Nikolai Leskov," Walter Benjamin argued that experience had fallen in value.[11] Storytelling had been supplanted by information. Like wisdom, information appeared to be authoritative—it had the potential to communicate facts and truths across vast distances, in no time at all. Unlike wisdom, however, Benjamin found information's authority to be spurious: because information was characterized by its immediacy and its ephemerality, it lacked the sense and experience of tradition and history necessarily associated with the authority of traditional storytelling. Thus information, while potentially knowledgeable, was never truly as wise as the knowledge that could be produced through the storytelling that manifests out of experience itself. Benjamin traced three primary formats for storytelling: the story itself, an animated and useful form of communication of wisdom; the novel, a privatized world contingent on the medium of the book; and the newspaper, which, predicated on the transferral of information, is immediate and verifiable, but lifeless.[12] For Benjamin, "An orientation towards practical interests is characteristic of many born storytellers." Stories communicate a kind of information, whether as a "moral," "practical advice," a "proverb or [a] maxim," but that information is enabled by the authority of a storyteller, who, embedded in experience, communicates knowledge that allows for "the continuation of a story which is just unfolding" (*S*, 29-30). The experiential potential of storytelling meant that storytellers were "rooted in the people, primarily in the milieu of craftsmen" (*S*, 47). One might think, as

[11] Walter Benjamin, "The Storyteller: Reflections on the Works of Nikolai Leskov," in *Illuminations*, ed. Hannah Arendt (New York: Harcourt [1968]: p. 26-55); this essay is hereafter abbreviated as "*S*."
[12] The value of information," Benjamin wrote, "does not survive the moment in which it was new" (*S*, 34).

Benjamin does, of fairy tales, that were and are a child's first tutor, particularly in matters of didacticism. Or of the seafaring merchant, whose tales crafted a pedagogy of the elsewhere.

Stories, according to Benjamin, were therefore "useful" (*S*, 30) because they were (and are) fundamentally rooted in story*tellers*.[13] By contrast, both the novel and the newspaper distance the audience from the storyteller, and arguably abstract the story from its roots—that is, "the people." As a result, though one might arrive at the conclusion that the increasing complexity of stories and information in novels and newspapers could contribute to an increase in the knowledge transmissible by any useful tale, Benjamin believed (and argued) the opposite. Indeed, it is not possible to read "The Storyteller," or to come to this recognition, without contextualising it amongst Benjamin's broader corpus, which hinges (amongst other things) on a purported "crisis of experience" in modernity.[14] For Benjamin, there was a critical difference between experience (*Erfahrung*) and sensation (*Erlebnis*).[15] The latter, though a key component of experience, was wont to the manipulations of modernity, and anathema to the transmission of wisdom (especially through historical tradition). Sensation, read through Benjamin, is only *partial* to experience, a surface-level and ahistorical encounter with the object-world that is incomplete and necessitates the imposition of memory in order to become full experience.

It would be fairly straightforward, then, upon one's first encounter with "The Storyteller," to read in Benjamin a condemnation of the vicissitudes of modernity, a conservative valuation of "tradition" and its wisdoms, and a lament that a world previously full of experiences

[13] Stories are not narrative. They may use narrative, which we might think as a form, or apparatus, that both inhabits and makes function stories. But, as I go on to detail, I am thinking of storytelling as a practice.
[14] See "Lamenting the Crisis of Experience: Benjamin and Adorno," in Martin Jay, *Songs of Experience: Modern American and European Variations on a Universal Theme* (Berkeley: University of California Press [2005]: p. 312-360).
[15] See also Samuel Titan's (ed.) introduction to Walter Benjamin's *The Storyteller Essays* (New York: New York Review of Books [2019]: p. 7-19); Hannah Arendt's introduction to Walter Benjamin's *Illuminations* (New York: Harcourt, 1968, p. vii-lxiii); and Susan Buck-Morss' "Aesthetics and Anaesthetics: Walter Benjamin's Artwork Essay Reconsidered" (*October* 62 [Autumn 1992]:p. 3-41).

has been replaced by (dulled) sensations. Though this interpretation is not, per se, wrong—it certainly can and does surface to varying degrees in fruitful contemporary interpretations of Benjamin's works[16]—it is only one interpretation of Benjamin's thinking, as it may be related not only to his own life and historical context, but also to what might be tentatively called his methodology.[17] The publication of "The Storyteller" actually requires some contextualization of the historical circumstances of Benjamin's world, the kind of scholarship he was doing at that time, and the connections that can be made with his thinking.

Although Benjamin began writing "The Storyteller" in March of 1936, and finished it in June of the same year, it was only published in the summer of 1937.[18] In a recent collection and republication of "The Storyteller" and other essays, Samuel Titan describes *Orient und Occident*, the Swiss review magazine that it was first published in, as "eccentric," counting only thirty-five subscribers at the time of publication.[19] It is therefore safe to surmise, as this collection does, that "The Storyteller" was overshadowed by the 1936 publication of what may now be one of Benjamin's most enduring essays, "The Work of Art in the Age of Mechanical Reproduction."[20] This latter essay took up many of the same themes of experience and sensation as "The Storyteller" does, but it was published in the more prominent *Zeitschrift für Sozialforschung*—a

[16] For example, in "Aesthetics and Anaesthetics," Buck-Morss traces the Benjaminian decline of experience according to the sensational "shocks" of modernity, including, but not limited to, the industrial forces of production, and the 20th-century's two world wars. My claim is that, even in spite of the shocks of modernity that attack and dull experience, storytelling, as Benjamin would conceive of it, *has* survived, albeit in different forms.
[17] Though, to be sure, Benjamin's methodology, if it does have any overriding doctrine, is not that of dialectical materialism; Benjamin's is more of a constellation of "crude thoughts," which, though they might, at first glance, appear to be inchoate, have proven to be fodder for all kinds of literary, cultural, and historical scholarship.
[18] In the "Editor's Note" in the *Illuminations* collection (p. 210-212), Hannah Arendt stipulates that "The Storyteller" was published in 1936. By contrast, the more recent publication of this and other essays, which I mention in what follows, suggests that while "The Storyteller" was written in 1936, it was only later published in 1937.
[19] Titan, "Introduction," p. 7-8. This particular collection attempts to delineate a constellation of Benjamin's thinking around "The Storyteller," and serves as a useful companion to the altogether more well-known publication of the *Illuminations* collection, as it was famously edited and introduced by Hannah Arendt.
[20] Benjamin, *Illuminations*, p. 166-195.

journal out of the Frankfurt Institute for Social Research, and under the direction of Max Horkheimer—and it therefore would have inevitably reached a wider audience, in the form of the potent cultural milieu of pre-war critical theory.

It is not so simple, however, to suggest that both of these essays make an incontrovertible case for wisdom and experience, and against an equated information and sensation. In fact, the trick in "The Work of Art" is that although Benjamin argued that the forces of production in industrial modernity had conspired to make art (e.g. photography and cinema) reproducible in a fashion that privileged sensation over experience, Benjamin actually thought that the destruction of art's "aura" (previously located in the exclusivity of a painting) might signal an opportunity for art—and, as he saw it, a form of experience that was more whole—to be accessible to the masses. In other words, technological reproduction had the potential to expand the boundaries of *who* could be included in experience. Similarly, storytelling, for Benjamin, was a product of the masses, whereas the novel and the newspaper were consequences of industrial (and bourgeois) forces of production. What, at first glance, and in both essays, might appear to be a conservative lament at the decline of an archaic form of communication, is actually better understood as an analysis of the relationships between mediums of communication and the experiences of "the people."

This approach to "The Storyteller" is integral, because it reflects the historical context that Benjamin lived and worked within. During the 1920s and early parts of the 1930s, Benjamin lived in the Weimar Republic, only fleeing the German Reich in 1933, the same year that Adolf Hitler was named chancellor of the Nazi Party. And so, as Hannah Arendt suggested in her essential introduction to Benjamin's *Illuminations* collection[21]—the most prominent collection of

[21] Hannah Arendt, "Introduction," in *Illuminations*; quotations from Arendt's introduction are hereafter abbreviated as "*I*."

Benjamin's essays featuring "The Storyteller" and "The Work of Art"—the "Jewish question" would have been at the front of Benjamin's mind during much of this period. For Benjamin and for others of his ilk that had come of age in the remarkably progressive Weimar Republic prior to the rise of Nazism, "What was decisive was that these men did not wish to 'return' either to the ranks of the Jewish people or to Judaism…not because they believed in 'progress' and an automatic disappearance of anti-Semitism or because they were too 'assimilated' and too alienated from their Jewish heritage, but because all traditions and cultures as well as all 'belonging' had become equally questionable to them" (*I*, xlvii). Benjamin saw belonging neither in the culture of Zionism nor the politics of communism, and this inability to "fit into" the cultural ranks of either religious or secular movements was, as Arendt argues, likely central to his scholarship on tradition, wisdom, and, by extension, storytelling. Though any given form of belonging might construct its shape under the auspices of Zionism or communism, it is likely that Benjamin found these cultural shapes to be only *partial* forms of belonging, thus inviting a comparison between the forces of capitalism and modernity, the rising tide of ethnonationalism, anti-Semitism, and finally, fascism, and the partial form of experiencing that he called sensation. As it happens, many of those same comparisons apply to the contemporary Western moment.

These questions—tradition, wisdom, and storytelling, and their relationships to belonging; the decline of full experience alongside the rise of partial sensation in industrial modernity—explain two elements of Benjamin's methodology, as well as his approach to storytelling, which prove consequential for this project. I have already begun to expound upon the first, which is that Benjamin was a *thinker of experience*. Rather than something that existed exclusively in the individual (e.g. the uniqueness of an individualized experience of sensation), experience, for Benjamin, was something collective. The story and experience are rooted in "the

people," not in an ethnonationalist *Volk* or the confines of static (and even atavistic) forms of tradition, but in the ongoing project of thinking through belonging, which, through storytelling, is nothing if not "the ability to exchange experiences" (*S*, 26). Through their relationships to the *exchange* of tradition and wisdom, experience and storytelling may therefore be considered as related to culture, constituting not only the immediately present moment of the apprehension of sensations, but also the *past* moments of memory and history, and the *future* moments that Benjamin thought as "the continuation of a story which is just unfolding" (*S*, 29-30). Both the story and experience, then, were central to the construction of life itself.

But it is also important to step back for a moment, and to recognize—in the fullness, and, perhaps, even democratizing possibilities of experiences rooted in "the people"—that Benjamin was simply a *thinker*. He styled his own thinking after one of his contemporaries, the poet Bertolt Brecht, as "crude." As Arendt writes, crude thinking "manifested itself most directly in the proverbs and idioms of everyday language. 'Proverbs are a school of crude thinking,' [Benjamin] writes" (*I*, xxiv). Contrary to the subtleties of dialectical thinking practiced by the Frankfurt School, Benjamin argued that for thought to turn into action—i.e. for the referral of theory to practice—it had to be crude (*I*, xxiii).[22] It is therefore possible to suggest, not only that crude thinking was part and parcel with the move beyond mere sensation into thinking experience in its fullness, but also that storytelling itself was a type of crude thought. After all, proverbs, so central to Benjamin's conception of storytelling, were crude. Storytelling, rooted in the exchange of experience—precisely for the purpose of attending to both in the past terms of memory, the present terms of sensation and experience, and the future terms of the "story unfolding"—was nothing if not thought made action. It could, perhaps, be possible, by extension, to suggest that (a

[22] See also Walter Benjamin, *Understanding Brecht*, trans. Anna Bostock, (New York: Verso, 1998).

cultural logic of) information could be compared to a type of "refined" thought; that, through the specious analogy made between information, authority, and knowledge, which is contingent on the displacement of a logic of representation for a logic of being (information as the "proper" form of phenomena), information is rendered entirely impractical. But that is a thought for another time. For now, it will suffice to make some summative remarks that bring Benjamin to bear on the claims outlined thus far.

I would like to return to the representation of impeachment proceedings against Donald Trump and attempts to incite action to mitigate the effects of climate change. At the outset, I presented both cases as examples of a slippage between information and knowledge, and an inability to comprehend how apparent truths can be denied. I am suggesting that this denial of "the facts," or the choice of an entirely different frame for comprehending that information, should be interpreted according to a Benjaminian framework of storytelling and wisdom. The denials and ignorance of both a quid pro quo and climate change are a kind of group wisdom, and, are perhaps even a choice made to interpret phenomena according to the conventions of stories over the conventions of information. But I want to be clear that I am *not* making the claim that this choice is a good one. Instead, I am framing this (group) wisdom as concomitant with what an interpreting subject determines to be the most *useful* to them, whether that is continued belonging in a "Make America Great Again" (MAGA) social group, or avoiding the feelings of guilt and mourning associated with oncoming climate change. In other words, these choices, for the subjects who make them, would at least seem to proffer those same subjects the possibility of a "full" experience, as it is construed according to specific cultural notions of history, tradition, and wisdom. MAGA, in all of its vainglorious bigotry, offers the possibility of one version of belonging and its complementary beliefs. This is to say, and perhaps surprisingly, that a case like

that of Fox News actually seems to reflect (at least an implicit) understanding of information according to its relationship to representation, whether that is as a form of meaning or the selection of a signal, and that understanding constitutes a mode of knowledge that is *useful* for whatever is deemed necessary.

These summative remarks, then, might, following both Brecht and Benjamin, be a crude way of approaching the examples from the introduction, and I am willing to wager that they go a long way towards explaining the actions inherent in the conundrums presented, without resorting to oppositions between real and fake, true and false, or condemnations that rely on notions of an ideological false consciousness. But let me be crystal clear. In attempting to examine information and representation in a different light, I do not mean to suggest that contemporary scholarship on information is ineffective, that information is somehow "bad," or, worst of all, that when it comes to movements like MAGA, "you've got to hand it to them." You most certainly do not. What I am proposing, however, is a different route towards examining the relationships between information and culture, precisely because these relationships are political. My primary hope for this project is that it can proffer a critical framework for assessing and acting upon contemporary discussions around technology, information, and culture. In order to do so, however, the terms and concepts I have begun to address beg further exposition and explanation. Thus far, I have sketched some arguments, given some preliminary definitions of data, information, and storytelling, gestured to a cultural logic, representation, and genre, and, finally, attempted to outline just how crucial a role experience may play in all of this. In what follows, I want to do a bit more stage setting for the analysis that comprises the bulk of this project, and to give greater depth to a conception of the story and the role it has to play.

II: The Usefulness of Storytelling

For Benjamin, information's authority lay in explanation, in expending itself *for itself* such that it might be understood for all as *truth*. In its ability to expend itself as truth, information came to be seen as producing knowledge. Read the newspaper—know the world. This general conception of information has more recently come into question, as scholars have finally begun to ask the more basic question, "how do we know what authoritative information is?"[23] Michel Foucault would have identified the kind of authority that comes to be associated with information as a part of what he called knowledge-power, an "analytical grid" according to which subjects apply truth and its critique.[24] The grid shifts over time: Foucault called these epistemes. In the Western and especially Anglophone world, our episteme may be thought according to the concepts of information, and it is from within this epistemological framework that I am attempting to isolate *a cultural logic of information*. In this logic, experience has subjective truth value, but information is presumed to have *objective* truth value, and, throughout much of the long durée of modernity, the latter delineated—and therefore determined—the analytical grid.

In more recent decades, however, information's ostensible objective truth-value has come under attack, first in academe, and later in the general population. It would seem that that buzzword of postmodernity—heterogeneity—makes impossible total, objective truths, a common assumption that appears to have brought with it an interminable struggle over "matters

[23] See, for example, this interview with Renée DiResta, "Q&A: Rénee DiResta on Disinformation and Covid-19," *Berkman Klein Center for Internet and Society at Harvard University*, URL: https://medium.com/berkman-klein-center/q-a-renee-diresta-on-disinformation-and-covid-19-7e285232d6e5.

[24] Michel Foucault, *The Politics of Truth* (New York: Semiotext(e), [1997]: p. 52). It is especially useful to think of information as an instrument for critique. Critique "only exists in relation to something other than itself"; it is itself, "an instrument, a means for a future or a truth that it will not know nor happen to be" (25). Information is thus the instrument's instrument, less the tool than the act of crafting itself: "the direction of conscience; the art of governing men" (27). Information lays the foundation for critique, and thus authority—at least in theory. See also Foucault, *The History of Sexuality, Vol. 1: An Introduction* (New York: Pantheon, 1978).

of fact" and "matters of fiction."[25] In the introduction I gestured to an Enlightenment model of knowledge, albeit one that has shifted over time. Under question, now, is an updated version of it; one which insinuates that good action stems from correct knowledge, which is not a result of autonomous experience, but of authoritative information.

I want to return to Benjamin's thesis, in order to question its foundational premise. Does information continue to supplant storytelling, even if there are prominent examples of its value in crisis? Though an argument made many times over, there is little doubt that ours is, at the best of times, what Gilles Deleuze called a "control society," one that nevertheless metes out discipline over life and sovereignty over death, during times of instability, and to non-hegemonic populations.[26] Though he identified many nascent trends in a control society, Deleuze was especially interested in the ability of information to control. Undoubtedly aware of Shannon's mathematical theory of communication, Deleuze thought that the transmission of information via communication proffered a contemporary example of Foucault's conception of knowledge-power.[27] The difference between the societies of sovereignty and discipline that Foucault identified, and a control society, was that where the disciplinary form of enclosure was a mould, control operated like a free-floating gas, *modulating* itself in response to rebellion or even the departure from any norm. The apparatus used to facilitate control is the computer.

[25] Bruno Latour, "Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern" (*Critical Inquiry*, 2004).
[26] Gilles Deleuze, "Postscript on the Societies of Control" (*October* 59 [1992]: p. 3-7).
[27] This is a bit of a simplification of Deleuze's point, which is more specific: "what is important," he writes, "is no longer either a signature or a number, but a code," in the sense that a code is a "*password*" that offers the keyholder the possibility of movement in and amongst the modulations of control (5). So, individuals become "*dividuals*," defined by their "masses, samples, data, markets, or '*banks*,'" and these codes mark or reject "access to information" (Ibid.).

There seems to be little doubt, now, that the Western world is, even for those most privileged of populations, at least a control society.[28] Indeed, in the introduction, I have set the stakes for a cultural logic of information as a *modulation* between control and disaster. I do not intend to argue against a control society. But I *do* want to pick this argument up again and to test it against Benjamin's thesis. I wish to argue that Benjamin's thesis has been reversed (by way of suggesting that it may have always been wrong, or, at least, not quite right). Today, experience has risen in value. So too have stories. Information has fallen in value. In other words, a control society has produced (what at least seem to be) uncontrollable tendrils. To repeat the argument made in the introduction, information's immediacy, authority, and supposed verifiability almost always compel scrambles for narrative representation in excess of information for itself. That is, what often gets called a crisis of information is actually a crisis of representation. This crisis supposes that representation (sometimes acknowledged to include information, sometimes not) no longer "properly" matches the phenomena it intends to represent. A drive for the "correct" representation is the impetus behind the scramble. I do not mean to suggest that this scramble is a new one.[29] The difference between Benjamin's era, and ours, is the capacity of information

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[28] Wendy Chun's entire corpus, which may be broadly articulated as assessing the relationship between "control" and "memory" (as stand-ins for power and knowledge) through information technology, is especially useful here; see *Control and Freedom* (Cambridge: MIT Press, 2006); *Programmed Visions* (Cambridge: MIT Press, 2011); *Updating To Remain The Same* (Cambridge: MIT Press, 2016); and "The Enduring Ephemeral, or the Future Is A Memory" (*Critical Inquiry* 35, no. 1 [2008]: p. 148-171). One might also think the relations between knowledge, control, and the *mediation* of information as Richard Grusin does through the terms "remediation" and "premediation"; see Grusin and Jay David Bolter, *Remediation: Understanding New Media* (Cambridge: MIT Press, 1999), and Grusin, *Premediation: affect and mediality after 9/11* (New York: Palgrave Macmillan, 2010). Finally, it is worth thinking the relations between information and control through the analytic of "risk," as Chun does in "Hypo-Real Models," and as Ulrich Beck does in *World at Risk* (Malden, MA: Polity Press, 2007).

[29] It is not enough to say that debates over the "correct" representation stretch as far back as scholarship does. They may be a feature of humanity itself, as it has developed language and the ability to use tools; see Bernard Stiegler, *Technics and Time, 1: The Fault of Epimetheus* (Stanford: Stanford University Press, 1998). To speak of a relationship between representation and truth is to identify fields as vast as the religious veneration of icons, philology, phenomenology, and empiricism in the sciences—to name a few. Here, I want to emphasize representation in the relational terms of "text," "image," and "idea"; see especially W.J.T. Mitchell, *Iconology: Image, Text, Ideology* (Chicago: University of Chicago Press, 1986); Mitchell, *Image Science* (Chicago: University of Chicago Press, 2015).What makes subjects call a representation merely a "likeness" or "semblance" of reality? By contrast, what makes subjects call a representation "pure" or "natural," less a *re*-presentation, than the thing

technology to exacerbate those scrambles (over time and across space), and to render them visible and at hand by mobilizing platform infrastructures to act as if they were a chalkboard for those scrambles at the front of a proverbial classroom. What is used, and indeed, abused, is the story: a technology that, when put to work, can come to craft information at will.

In the previous section, I detailed how, for Benjamin, storytelling was oriented towards "practical interests." Those interests are not merely about stories as forms of understanding, but about stories as experiences themselves, caught up, as experience is, in the past, present, and future. Stories structure both apprehension and comprehension. But my purpose here is to focus on representation and comprehension, the weight of which (I will argue) is articulated through genre. Thus I want to venture the following proposition: a story is, in no uncertain terms, *an instrument for making sense of experience as it unfolds*. It is a form of *technē*, as in an art or craft. In the present, I take technology to be, not only the craft of knowledge production, but also something embedded in material apparatuses.[30] The material apparatus can take on many different forms: it may be the network, both real, like mobile phone infrastructure, and abstract, like a concept of relationality; it may be a "black box," both an idea of the impenetrability of technological systems and the secrecy around certain valuable source codes, and a real, salvageable box, in systems, that houses essential data in the event of a catastrophe; it might,

itself? On the study of representation and things themselves in the 20th century, see Bill Brown (ed.), *Things* (Chicago: University of Chicago Press, 2004). Though it is outside of the scope of this project to descend further into these questions, underlying this work is the suspicion that the historical idea of "information" stages many old debates over how to represent reality, where those who believe in the unvarnished authority of information are "iconophiles," and those who doubt its objectivity are deemed "iconoclasts."

[30] As Giorgio Agamben has suggested in *What Is an Apparatus? and Other Essays*, trans. David Kishik and Stefan Pedatella (Stanford: Stanford University Press [2009]: p. 1-24), Foucault spoke frequently of an "apparatus," but never quite formulated a substantive definition for the term and its use. Interestingly, as Agamben notes, Foucault thinks through the apparatus in terms of the network, especially as a network is relational and therefore universal. If Foucault's use of the term is altogether inchoate, Louis Althusser, by contrast, provides a more coherent concept of the apparatus (both in terms of its relationality *and* in terms of its materiality) in "Ideology and Ideological State Apparatuses" (in *Media and Cultural Studies: Keyworks*, 2006, 79-88).

finally, be a state apparatus like the school or the prison, or a private apparatus like the corporation Apple, which, through the control of vast supply chains, provides both a literal instrument for experience (e.g. the iPhone), and has crafted a normative story of frictionless technological competency and control. That is, to think a story as an instrument or tool is to think in both literal and figurative terms, about the work stories do, and how they can come to shape the infrastructures that uphold life itself. Acknowledging the rootedness of storytellers in the milieus of "craft" and "people," Benjamin, too, appears to have been aware of this fact.

I want to claim, if the story form has returned to value, that it paradoxically represents both a vulnerability to and an opportunity for escape from control; sometimes in good ways, other times, not so much. Stories make immediacy, authority, and verifiability into subject qualia; in a "post-truth" America, Donald Trump unironically figures as a "wiseman," as his "stories" are disseminated by the merchants and craftsmen under the heading of Fox News; on Twitter, issues of race, ethnicity, gender, and sexuality are formative of digital culture, especially inasmuch as social media provides a platform for voices that bely hegemonic narratives in ways that push beyond the trivializing assumptions of representation.[31] Although these two examples are opposing in tenor—one structured by the narrative qualities of an ur-fascism,[32] the other expressions of experiences and cultural authorities that undermine the concept and history of a

[31] André Brock Jr. provides a comprehensive account of this argument along the lines of social media culture and "Blackness" in *Distributed Blackness: African American Cybercultures* (New York: NYU Press, 2020). Brock's argument is not predicated on the assumption that Blackness is somehow "subcultural," and that subculture, at least in part, shapes the cultural by virtue of testing the normative bounds of the hegemon. Brock instead argues that Blackness is what sets the terms for normative participation. For example, it is commonplace to use "reaction GIFs" to express affect and emotion in online interactions, but notable that these GIFs tend to be dominated by images of Black people; that is, internet users who are not Black *use* Blackness in order to express themselves socially—what Lauren Michele Jackson has called "digital blackface" ("We Need to Talk About Digital Blackface in Reaction GIFs," *Teen Vogue*, August 2, 2017).

[32] The dominant marker of ur-fascism is a "cult of tradition," which is a specified and moralized type of storytelling, usually centred around a purity tale defined by a specific temporality that connects a group of people and land; see Umberto Eco, "Ur-Fascism" (*The New York Review of Books*, June 22, 1995).

homogeneous public[33]—they both use storytelling towards their own articulations of knowledge and truth. These articulations make sense of the inference-dominated realities of information and code, at the same time as they may be articulated as information and used for power's purposes.[34] To say a story is a kind of *technē* is to call it a tool. Tools are, at base, life giving. As such, stories both sustain and imperil human lives.

III: Storytelling and Genre

How do stories sustain and imperil human lives? I have bracketed the terms of this project around comprehension, a word that implies recognizability, reflexivity, and, as a consequence, subjectivity. Given that my focus is storytelling, and, given the story's relation to narrative, it makes sense to use what might, initially, appear to be a literary term, in order to assess comprehension. *If the story is a tool, genre is its task*. I want to think through both the story and information as they are formed into genres, in part because genre refers to texts, and therefore to narrative representation, and in part because I think it is a less limiting term than ideology, which, when used to investigate cultural logics, risks becoming what Fredric Jameson calls "culture critique," a moralizing polemic that unproductively reifies the very object of its criticism.[35] Genre has traditionally and historically been used to refer to texts, especially for the

[33] See Michael Warner, *Publics and Counterpublics* (New York: Zone Books, 2002).
[34] By referring to a reality that is dominated by inference, I am turning towards an extensive history of *risk*. Risks are especially associated with data and the correlative *inferences* that can be made from it, whether in terms of financial markets that speculate on the risks associated with the circulation of capital, scientific models of climate change that espouse the risks and rewards of inaction and action, or what Richard Grusin refers to as expansive forms of premediation that intend to mitigate the effects of the inevitable traumas of modernity. "In reflexive modernity, mainly imperceptible secondary effects become primary; what is central is not industrial production but the management of risks produced by industrialization…[which] are imperceptible to normal human perception and escape the powers of the human imagination" (Chun, "On Hypo-Real Models," 683). Stories, I contend, fill in the gaps between human imagination and secondary forms of perception.
[35] I learned to think about genre from Lauren Berlant; see especially, Berlant, "Genre Flailing," (*Capacious*, 2018, p. 156-162); Berlant, *Cruel Optimism* (Durham: Duke University Press, 2011). For an especially useful survey of Berlant's work on genre, see Robbie Duchinsky and Emma Wilson, "Flat Affect, Joyful Politics and Enthralled Attachments: Engaging with the work of Lauren Berlant," (*International Journal of Politics, Culture, and Society*,

purpose of determining the "essence" of those texts (e.g. comedy, tragedy), so that they may be categorized and ultimately taxonomized into a universally recognizable system. Unsurprisingly, then, genre has something of a chequered history in the humanities.[36] I move beyond this history. By genre, I actually mean the patterning of experience into sets of recognizable expectations, which structure sensations of, and feelings about, subjective actions *in* the world, and interpretations *of* the world; and, which combine to form the norms and conventions that structure living itself. Genres are always as much a product of their audience and the historical space and time that they exist within as they are a product of any singular authorial presence. Genres shape expectations of and for experience.

This non-traditional use of genre is, perhaps, unexpected, and, as such, it is worth pausing on the term for a moment longer. For a scholar like Lauren Berlant, what genre allows one to do is to push beyond the sometimes-prescriptive methods of Marxist methodologies that dominated much of literary and critical theory in the latter half of the 20th century. It is through Marxism, for example, that one can come to identify ideologies in the terms of "false consciousness," where ideology is really just the lamentable identification with, and embodiment of, the ideologies of the ruling class by subordinate classes, a definition that sets up a derivative relationship between the "non-ideological" scholar and the "ideological" layperson.[37] Using

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2015, p. 179-190). I prefer to use the term "genre" to "ideology" because I think genre 1) avoids some of the trappings of judgment that inhere through the outside identification of an ideology; and 2) allows for the possibility that the kinds of norms and conventions that emerge out of genre (and ideology) may be as much life-*giving* as they are stultifying impediments to an enlightened whatever. See also Fredric Jameson, "The Aesthetics of Singularity," (*New Left Review*, 2015, p. 101-132), especially the first three pages.

[36] For a survey of this history and some of the problems with it, see Daniel Chandler, "An Introduction to Genre Theory" (11 August, 1997, URL: http://visual-memory.co.uk/daniel/Documents/intgenre/intgenre.html).

[37] This is something of a simplification of ideology as a concept, and I want to be clear that I do not consider ideology to be a useless term. I have gestured to the kinds of conflations that occur between data and information, and these merit investigation alongside an etymology of the modern usage of the word "ideology," especially as a kind of science, or empiricism, of ideas, as Raymond Williams details in *Marxism and Literature* (Oxford: Oxford University Press, 1977, p. 55-71). But one need not stop there. It would also be worth considering information in terms of the relationship between idea, image, and empiricism. As Mitchell has demonstrated in *Iconology*, the Platonic tradition "distinguishes the *eidos* from the *eidolon* by conceiving of the former as a 'suprasensible reality'

genre in a traditional sense would perhaps require denying MAGA status as a genre, assuming it is a kind of false consciousness, and sidestepping its interrogation. If one was to continue paying attention, it would also require a hard line differentiating between the MAGA rallies Donald Trump holds (which are perhaps a type of performance theatre), and the sanitization and distribution of his message via Fox News (televisual news media). Many of us, however, might suggest that MAGA and Fox News exist, at least, in some sort of imbrication. The boundaries of genre are slippery. Patterns are not always transparent, forms of recognition shift, and, so too, do expectations; norms and conventions, then, are not static. Although, since well before the inception of his campaign, Donald Trump has been a figurehead of bigotry, it is self-evident that, over time, the norms and conventions that exist in relation to his presidency (e.g. what constitutes a conflict of interest, previously thought to be precisely a quid pro quo) have shifted. Whether one wants to call MAGA the genre of the "strongman," or of white supremacy, genre creates the space for assessing the two in tandem. I will have more to say in Chapter 3 on how genre is specifically related to information, and just how it shapes expectations of and for both information and experience, but, for now, let me conclude this section with a little more on genre as the story's task.

To say that genre is a story's task is to ask what a story does: what labour does it perform? for whom might it be useful? what does it produce? (And each of these questions opposites.) There is not one, homogeneous experience towards which stories are tasked with the making of sense. What's more, one person's tool may be another's crutch; one's favoured task is

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of 'forms, types, or species,' the latter as a sensible impression that provides a mere 'likeness' (*eikon*) or 'semblance' (*phantasma*) or the *eidos*" (5). If Galloway speaks of information as something fundamentally aesthetic, and Deleuze reads those aesthetics as modulated, where is the line between information as an image *form*, and information as a likeness or phantasm, the latter of which immediately invites the connection with control as something gaseous? Moreover, how might this line both support and challenge Williams' genealogy of "ideology" itself?

another's dreaded chore. Genre separates, justifies, and dignifies these tasks, whether to the storyteller or to the audience. To speak of genre, then, is to fall well short of an exhaustive account of the tasks of any one story, let alone storytelling writ large.

I have, thus far, not found scholarship that relates information to storytelling and to genre, at least in the humanities (although there are many loosely related texts that will fall outside of the citational scope of this project).[38] This Benjamin essay, though famous, appears far less in studies of media than does "The Work of Art." And I can see why. There might seem to be a pathos to the thesis that suggests storytelling has risen in value, and that it could, somehow, be, at minimum a palliative, at maximum a raised but dulled pitchfork, in and against a society of control. But the foreclosure of that argument inevitably (if unintentionally) ends up returning to a privileged Enlightenment model of knowledge and action, albeit one now contingent on information, at the same time as it denies the continued viability of stories as central to experience. It also places the burden of proof on the storyteller, demanding they prove their authority, all the while denying their and their stories' agency, in a way that is wont to exclude the critical insights of fields including critical race theory, disability studies, queer and trans theorizing, and feminist theory, as if they were all, merely, storytelling—as if it were somehow opposed to knowledge. In this instance, the answer to Gayatri Spivak's question "Can the

[38] For example, I was able to find one article on the role of participation in contemporary storytelling online; see Anna De Fina, "Storytelling and audience reactions in social media," (*Language in Society*, 2016, 473-498). I would, also, like to point towards a forthcoming publication, which, although it appears to use a different framework, takes the question of a crisis of experience seriously and without resorting to nostalgia for a "real," or pontificating on the "impoverishment" of culture: "We are having a crisis of experience: bombarded with inputs, and undergoing a contraction of the present and a speeded-up world, we cannot so straightforwardly rely on experience anymore as the basis for an enduring subjectivity. Our experience itself is fragmented and continually receding. Thus, if experience motivates political action, the very basis of our common organizing is undercut" (9); see Cressida J Heyes, *Anaesthetics of Existence* (Durham: Duke University Press, forthcoming 2020). In particular, Heyes argues that the topic of the book—"anaesthetic temporality"—is a kind of "addiction lite" (22), which, given that addiction is "habit gone bad," suggests resonances with much of the work on control and habit/updates that appears here in conversation with Wendy Chun.

subaltern speak?" would problematically be "no, not really: she is only a discursive product." I therefore *do* want to take storytelling seriously. I am especially interested in the ways in which people make sense of information, and in how contemporary experience is divided and outlined. I contend that attending to the proverbial storyteller plays a crucial role in understanding the mediation of cultures as they are entangled with information.

But my focus is not on the story as somehow a tool of an abstracted subaltern. Aside from the fact that this focus would erroneously imply the anachronistic argument that storytelling is marginalia to "serious" theory—and storytelling, let me be clear, *is* a universal—others have already focussed on experience in this context far better than I can here.[39] I do not wish to adopt a cavalier attitude that pays lip service to significant theories without engaging with them. I have not, however, sidestepped the question. Instead, I am, in this project, especially interested in the cultural prioritization of the experiences of privileged and powerful agents and bodies. That is, when I ask, for whom might a story be useful? and what does it produce?—I am looking towards those who benefit and who feel comfort from a given story. I read these stories especially as prominent tools for enacting what Lauren Berlant calls "good life fantasies that equate frictionlessness with justice and satisfaction with the absence of frustration."[40] Indeed, though within these stories, there may be friction, injustice, and frustration, they emerge generally

[39] Though not all of these texts explicitly reference the topics of experience and information technology in those terms, see for example: Ruha Benjamin, *Race After Technology* (New York: Polity, 2019); Ruha Benjamin (ed.), *Captivating Technology: Race, Carceral Technoscience, and Liberatory Imagination in Everyday Life* (Durham: Duke University Press, 2019); Alfie Bown and Dan Bristow (eds.), *Post Memes: Seizing the Memes of Production* (Earth, Milky Way: Punctum, 2019); André Brock Jr., *Distributed Blackness: African American Cybercultures* (New York: NYU Press, 2020); Cressida J Heyes, *Anaesthetics of Existence* (Durham: Duke University Press, forthcoming 2020); Nathan Jurgenson, *The Social Photo* (Toronto: Penguin Random House Canada, 2019); Safiya Umoja Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism* (New York: NYU Press, 2018); Sarah T. Roberts, *Behind the Screen: Content Moderation in the Shadows of Social Media* (New Haven: Yale University Press, 2019). See also, Sara Ahmed, *Queer Phenomenology* (Durham: Duke University Press, 2006).
[40] Berlant, "The Commons: Infrastructures for troubling times," (*Environment and Planning D: Society and Space* 34, no. 3 [2016]: p. 396).

amongst “normal” lives, whatever “normal” may be, concerned predominantly with the provision of information as a prominent source of an imagined good life. In the former category, I turn to perhaps the most well-known “literary” books of the last decade, Karl Ove Knausgaard’s *My Struggle*. But I don’t only read Knausgaard; I also consider a prominent review of the final title, by Fredric Jameson, which engages with the banality of a liberal good life in terms of the series’ widespread public reception. I find a mirror for Knausgaard in a plethora of YouTube videos that can be loosely amalgamated into a milquetoast “lifestyle” genre, all of which are most concerned with the relatability of different types of satisfaction that emerge through the videos *qua* objects, and through the objects on display within them.

In the following chapter I proffer a tentative sketch of a cultural logic of information. This sketch is not meant to be complete, but, instead, at the risk of repeating some of the points made thus far, it pulls together some of the disparate threads introduced under the heading of a “cultural logic of information.” It goes without saying that detailing this cultural logic in some form of completion would require its own project, making a case for all of its tendrils and possibilities. For now, I will content myself with gestures to some important literature that can be read under this heading, as well as the identification of some critical “nodes” in this cultural logic.

Chapter 2: A Cultural Logic of Information

At the outset I asked a question: what is the value of information? Pulling together some of the threads introduced thus far, I take its value to rest in the feeling of certainty, understood in terms of an assumed affinity between truth, knowledge, and authority. But stories also proffer something similar by acting as instruments for making sense of experience; while they might not guarantee certainty, they no doubt offer its possibility, especially in the form of experiential knowledge that can, at times, seem more comforting than the "cold hard truth." What is evident, then, from the two examples I addressed in the introduction, is that certainty is neigh impossible to come by. What's more, certainty is wholly imperilled in times of crisis. In other words, by locating the *feeling* of certainty as central to the value of information, I am pointing towards a cultural logic.[41] What matters to a cultural logic is not whether information actually is always directly truthful, knowledgeable, or authoritative, but, instead, how that particular conception of information functions in and on culture(s), and where certain consistent points of interest across sometimes disparate forms of experience and living can be noted and interrogated.

[41] As this project is situated firmly within cultural and media studies, it is important to locate feeling in the same processes that Raymond Williams does in *Marxism and Literature* (p. 128-135), as "structures of feeling." Williams was concerned especially with "the [theoretical] reduction of the social to fixed forms" (129) in scholarship on culture. These forms are taken to always be receding into the past, thereby establishing scholarship that fixes society, culture, ideology, and so on, as specific, definitive, singular forms. In so doing, one could suggest (as Williams does) that scholarship on culture often denies experience of its complexities, tensions, shifts, uncertainties, unevenesses, confusions, and more. In other words, Williams sought to develop a language for reckoning with experience in/and culture, and the non-parenthetical relationship between individuals and social groups. The term "structures of feeling" suggests that "It is not only that we must go beyond formally held and systematic beliefs, though of course we have always to include them. It is that we are concerned with meaning and values as they are actively lived and felt, and the relations between these and formal or systematic beliefs are in practice variable (including historically variable), over a range from formal assent with private dissent to the more nuanced interaction between selected and interpreted beliefs and acted and justified experiences. An alternative definition would be structures of experience" (132). Indeed, "genre," as Berlant uses the term, is not so different from these structures of feeling. I use the former term over the latter primarily for its textual connotations, and in acknowledgment of the slipperiness between information-as-text and story-as-text.

It would be impossible to speak of a "cultural logic" without making note of the central influence of the work of Fredric Jameson in this regard, particularly in *Postmodernism, or, The Cultural Logic of Late Capitalism*.[42] For Jameson, any cultural logic will be a product of historical forces, which, in Marxian terms, are, here, the development of a hegemonic norm according to a confluence of the economic forces of production (the base) and cultural and ideological forms (the superstructure). This product is deserving of an extended study; for now, though I do not want to position this project as explicitly Marxist, let me note that my engagements focus on cultural and ideological forms, rather than on the forces of production. To begin to sketch the terms of a cultural logic is, then, to attempt to "map" these forces, a process that Jameson calls "cognitive mapping," which works "to enable a situational representation on the part of the individual subject to that vaster and properly unrepresentable totality which is the ensemble of society's structures as a whole."[43] It is critical, here, to pause and recognise the need for care with any cartographic project, given the ways in which mapping has historically functioned as an instrument of power.[44] With care, however, mapping can be understood as the

[42] See Jameson, *Postmodernism* (Durham: Duke University Press, 1991); see also Jameson's more recent re-evaluation of this work, contending, in particular, with some of its deficiencies, in Jameson, "The Aesthetics of Singularity." What makes Jameson's work interesting is not that his analyses are "right"—they often aren't, since, for example, postmodernism has not signalled the end of traditional ideologies. What's more, Jameson's tendency towards totalizing theories has been extensively critiqued in a number of different fields, and rightly so; see, for example, Imre Szeman, "Who's Afraid of National Allegory? Jameson, Literary Criticism, Globalization" (*The South Atlantic Quarterly* Vol. 100, No. 3 [2001]: p. 803-827). To repeat the point, then, what makes Jameson's work interesting is the questions it raises about the intersection and imbrication of the historical forces of culture and the economic modes of production. It is outside of the scope of this project to deal with economic modes of production in more Marxian terms, let alone to attempt to reconcile Benjamin's materialism with Jameson's Marxism; instead, rather than focus on the causes of the cultural logics I detail in depth, I turn primarily towards their *effects*, whether in the form of belief systems or genres of comprehension.

[43] Jameson, *Postmodernism,* p. 51.

[44] Here, a map can have different meanings, whether as a cartography of geographical areas, or something more directly cognitive—a concept or an idea. Though I do not use the term "mapping" throughout this project, I want to stress, in particular, the relation of "maps" to the formation of cogent concepts, how observation complements "mapping" and vice versa, and, finally, how observation and the production of (visualized) concepts can come to control ideas, people, and land. Later in this chapter, and in Chapter 3, I discuss the relations between concepts or "pictures" of information, and how information is imagined, and I want to stress just how processes of cognitive mapping can come to influence imagination, in much the same way mapping, as a "science of observation," served to promulgate everything from colonial empires to theories of the relationships between societies and the land; on

noting of those points of interest, which, in a network society, may be thought of as nodes amongst a series of relations. In the introduction, I gestured to the incompletion of this definition, suggesting instead my intent to characterize networks according to a total overabundance of context(s), a process which I will try to outline in Chapter 3. For now, let me intimate that a process of cognitively mapping a cultural logic of information, as it appears within networked societies, is a process less of connecting a spider's web in spatial terms, than it is of watching how that spider moves across its web in space and in time, searching in particular for representational statements that may be made about its movements. In the case of a cultural logic of information, those statements rely, in part on the movement of the term "information" amongst different meanings, and in part on the weight of, or context surrounding, each of those meanings. Sometimes, in those cases where a cultural logic operates in full force, it may go so far as to craft clear interpretations and expectations of the world into institutional norms and cultural conventions. That is, I am suggesting that the product of a cultural logic of information may well be information as a *genre*. In what follows I attempt to provide a preliminary sketch of some of those movements.

I: Tracking the Cultural Logic

What, precisely, do I mean by a *cultural logic of information*? And how might it be reconciled, or not, with experience? As I have endeavoured to demonstrate, defining information is no simple task; even in academe, one may find different characterizations of the term across, say,

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this latter point, see, for example, Gillian Rose, "Geography as the Science of Observation: The Landscape, the Gaze and Masculinity," in Felix Driver and Gillian Rose (eds.), *Nature and Science: Essays in the History of Geographical Knowledge* (London: Institute of British Geographers [1992]: p. 8-18). On the relations between concepts, "mapping," and control, of particular significance for this project are Buck-Morss, "Envisioning Capital: Political Economy on Display" (*Critical Inquiry* 21 [Winter 1995]: p. 434-467); and Nicholas Mirzoeff, *The Right to Look: A Counterhistory of Visuality* (Durham: Duke University Press, 2011).

biology, computer science, and the humanities. As a way of accessing this indeterminacy, what I want to do, then, is to connect information to an Enlightenment model of critique through knowledge production. This model framed "good" action—that is, enlightenment—as the consequence of correct knowledge and experience. One might define good action exactly as Immanuel Kant did in "What is Critique?" (*Was ist Aufklärung?*), as "man's release from his [sic] self-incurred tutelage," especially at the hands of the Crown and the Church.[45] In the simplest of terms, the Crown and the Church were sources of both knowledge and control, and towards them, and their knowledge, one could adopt an attitude of scepticism, which would lay the groundwork for the kinds of critique that ultimately could function as what Foucault called "the direction of conscience; the art of governing men."[46]

It could be said that the adoption of scepticism, towards power and through critique, produced a kind of information, one that could create emancipating knowledge. It would be a stretch, as I have already noted, however, to say that information, per se, equates with knowledge. But I am wagering that this conflation is central to a cultural logic of information. Here, good action stems not from correct knowledge and experience, but from correct knowledge and information. Information, as we will see, is regarded as squashing indeterminacy, whether as *the* true representation of worldly phenomena, and knowledge, or as the dictation of, and substitution for, the terms of representation itself.

My claim is therefore as follows. The object of information is control, especially of the indeterminacies of experience. Control may be regarded as sustained by and the deserving result of authority (and, in turn, authority is the deserving result of control). That form of authority is

[45] In Foucault, *The Politics of Truth*, p. 7.
[46] Foucault, "What is Critique?" in *The Politics of Truth*, p. 27; for more on the relations between truth, knowledge, and critique, see the entirety of this chapter, p. 23-82.

distinctly "modern," for it relies precisely on the assumed-to-be healthy scepticism inherent in the "good" knowledge of a directed conscience and self-governance. The argument that haunts this logic, then, is the role that power has to play in the production of an equated information-knowledge.

I want to sketch four characteristics of this logic of information that come into closest contact with storytelling: 1) a theory of information's internality to communication systems; 2) a conflation of information with data; 3) a myth of computer code's sourcery; 4) a philosophy of computationalism and consequent assumptions of information's objectivity and authority. I develop those characteristics in what follows.

A theory of information's internality to communication systems. In the first instance, I want to emphasize the enduring influence of Claude Shannon's mathematical theory of communication, and the definition that it gives of information therein. "A Mathematical Theory of Communication," written in 1948 for *The Bell Systems Technical Journal*, has, as N. Katherine Hayles has argued, had a vast influence, not only for technical engineering problems, but also for 20th-century investigations of the relationship between text and context.[47] Shannon's essay details a theory for the *circulation of information*, which is more concisely referred to as "communication":

> The fundamental problem of communication is that of reproducing at one point either exactly or approximately a message selected at another point. Frequently the messages have *meaning*; that is they refer to or are correlated according to some system with

[47] N. Katherine Hayles, "Text Out of Context: Situating Postmodernism Within an Information Society" (*Discourse* 9 [Spring-Summer 1987]: p. 24-36).

> certain physical or conceptual entities. These semantic aspects of communication are irrelevant to the engineering problem. The significant aspect is that the actual message is one *selected from a set* of possible messages. (379)

For Shannon, "the semantic aspects of communication" did not matter. This remark is crucial, because, as I outlined in the introduction, information *qua* representation precisely does require the semantic aspects of communication. By contrast, Shannon reasoned information was separate from experience, at least as it involves comprehension. Information is defined as a measure of what can be communicated (negative entropy, in technical terms): that is, the freedom to select a given message from the random noise a system produces. In order to quantify this measurement, the system, for Shannon, was always controlled and closed, as if in an ideal state absent slippage or run-off.

Shannon was only concerned with communication as the circulation of messages; that is, the selection of a given, specified message from circulation (although, in technical terms, information has come to be referred to as the selected message). This was a mathematical theory of *communication*, not information, since an inability to select the correct message signals a failure in the former before the latter can occur. It is worth noting, however, that selecting a specific message from abstract and generalized communication surely involves the imposition of some kind of meaning, since it renders a cut into circulation that—like a drop of rain creating ripples on a lake—may be correlated with "physical or conceptual entities." But Shannon was not interested in meaning; he was interested in the selection of a message, or a signal. The fundamental problem of communication is separating signal from *noise* (see Figure 2). In different terms, this problem has two steps: extracting signal from noise, and interpreting

meaning from signal. Even though, for Shannon, the latter step is deemed irrelevant to communication, if information is simply the *extraction of meaning*, then both steps are informational. Information *qua* signal is its own kind of non-semantic meaning. Thus if the problem of communication is the separation of signal from noise, of the informational *message* from the soup of undifferentiated circulation, Shannon's schematic becomes curious to the observer's eye. In Figure 2, noise is represented as occupying a space *outside* of linear communication. Noise, rather than being the product of an assemblage of technical apparatus (inhuman), human, and nonhuman factors—that is, a product of communication—is represented as a given but isolated source that imperils message selection by entering into presence somewhere along the linear path of communication (a point to which I will return in the following section).

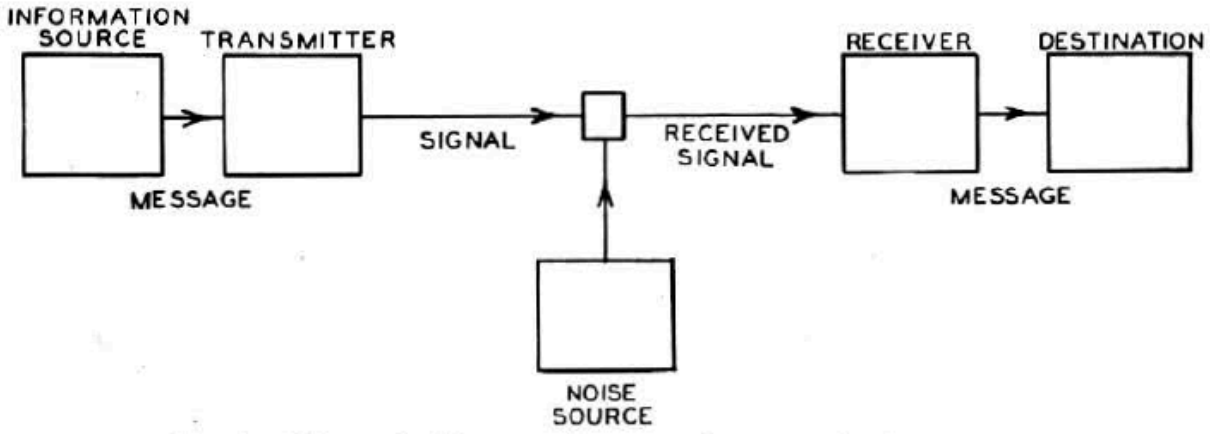

Fig. 1—Schematic diagram of a general communication system.

Figure 2: "Schematic diagram of a general communication system." (Source: Shannon, 1948)

Though Shannon's theory is highly technical, I am willing to wager that it surfaces in bits and pieces in a common-sense (by which I broadly mean a non-mathematical) conception of

information as well. One prominent (and esoteric) example of this surfacing appears in Jacques Derrida's formulation of a theory of deconstruction.[48] In the former instance, much as Shannon theorized communication as internal to a system, deconstruction theorized the lack of universal, transcendent viewpoint in relation to a text, formalized in Derrida's famous claim that there is "no outside-text."[49] That is, in the act of revoking a universal context, postmodernism curiously erased the power of *any* context, which could be explained away as a trace of something else. Thus, much like signal and noise were theorized as internal to communication, so too was context deemed internal to a/the text. If, as Shannon stipulated, noise is always constitutive of communication, but is also curiously represented as entering into presence from an outside, noise's presence is sensed but not necessarily recognized by subjects at the communication destination. Noise is experienced as a phantom presence that should not exist, akin to what Derrida might call the surfacing of a trace. To give this hypothesis an example: one effect of information technology, some 70 years after Shannon, is the proliferation of information sources and destinations; not only the many subject sources (us) of social media and the "object" sources (code) of subject-algorithm interaction, but also the dissolution of subjects and objects into multiplications of themselves (e.g. likes, comments, retweets)—what Deleuze, speaking of those societies of control, called the *dividual*. Curiously, in each of these scenarios, the story*teller*, as purveyor of the contexts of experience, came to be (at least theoretically) erased. The storyteller, in this reading, is either external to the system or the text, and therefore theoretically irrelevant, or, simply, noise that needs to be overcome.

But this surfacing was not relegated solely to academe; I want to suggest that it has shifted into a common sense. The language of "signals" and "noise" is frequently used to

[48] Jacques Derrida, *Of Grammatology*, trans. Gayatri Spivak (Baltimore: Johns Hopkins University Press, 1997).
[49] Hayles, "Text Out of Context." See also Lyotard, *The Postmodern Condition*.

describe the challenges of dealing with disinformation and the manipulation of media channels. For example, a prominent recent paper at the Columbia University symposium "The Tech Giants, Monopoly Power, and Public Discourse," given by the law professor Ellen P. Goodman, and entitled "Digital Information Fidelity and Friction," opens by suggesting that media policy should be designed "in large part to support high-fidelity information," which she defines as "news with a signal-to-noise ratio necessary for self-government."[50] Whether knowingly or not, Goodman's use of the term "self-government" should be read as signalling a direct relation between "high-fidelity information" and emancipatory knowledge (albeit one of a particularly liberal American kind). Crucially, for Goodman, a signal is equated with "information that is truthful and supportive of democratic discourse," while noise "misinforms and undermines discursive potential."[51] There is much that could be said about this paper and the worldview it proffers that is outside of the scope of this project. For now, I would simply like to highlight the ways in which Goodman frames the basic question of "how we determine if information is authoritative" according to the language of signals and noise. What matters, here, is that although Goodman *does* include semantic meaning in her conception of communication, she nevertheless frames communication following the same rules of internality that Shannon first stipulated. Information *qua* signal is simply something that is truthful and democratic, as opposed to a representation that is contingent on the vicissitudes of context or noise. In the same terms as Shannon's, noise, which "misinforms," seems to discolour previously and theoretically clear communication. Goodman establishes information as preternaturally authoritative, and the essence of a communication system, in a way that conflates it with apparently objective knowledge. This is an exclusive type of representation, framed less as the extraction of meaning,

[50] Goodman, "Digital Information Fidelity and Friction," *Knight First Amendment Institute*, p. 2.
[51] Ibid.

than the selection of a signal from the noise that imperils it. And the stakes are clear—truth and democracy, or not—control, or disaster.

But Shannon's is not the only theory of communication. Published the same year as Shannon's theory, Norbert Wiener's *Cybernetics: or the Control and Communication in the Animal and the Machine* focussed on the relationship between animals (human and nonhuman) and machines, a relationship that he thought could be developed through communication.[52] He located something like a "cybernetic loop" in the human body's nervous system, which circulates information between the brain and various points in that system—a "feedback loop." This organicism, as has been well documented, links information to the organic and the organic to capital.[53] For Wiener, as for a mass of scholars and members of the public in the years since, the feedback loops of cybernetic-thinking and information-being have seemed like the keys to understanding virtually everything: computer engineering, in terms of electronic circuits, and later machine-learning "neural networks"; the body, whether in terms of the heart, the nervous system, or neuroscientific theories of the brain; "nature," in the form of eco*systems*, or theories of the climate as systems of protracted influence and feedback; and capitalism, in the money-commodity-money "loop" that Marx first established.

Sometimes lost in the shuffle is how Wiener defined cybernetics. The word cybernetics takes its root "cyber" from the ancient Greek word *κυβερνᾶν*, which means "to steer" or the "art of steering" and is later connected, in Latin, to "governing" (*OED*). Cybernetics is the art of steering systems. In Wiener's theory, systems always contain a combination of actors/agents who

[52] Norbert Wiener, *Cybernetics: or the Control and Communication in the Animal and the Machine* (Cambridge: MIT Press, 1948).
[53] Eugene Thacker, *Biomedia* (Minneapolis: University of Minnesota Press, 2004).

steer: that is, systems are defined by outside context and influence. Wiener makes this point clear in the introduction to *Cybernetics*, describing the steering engine of a ship:

> [A]n extremely important factor in voluntary activity is what the control engineers term *feedback*. … when we desire a motion to follow a given pattern the difference between this pattern and the actually performed motion is used as a new input to cause the part regulated to move in such a way as to bring its motion closer to that given by the pattern. (6-7)

I quote this passage at length for its use of the words "voluntary" and "desire," both of which signal that there is no *inevitability* to steering; to the contrary, the feedback loop is a process of steering the motion and the given pattern into a more closely mirroring relationship. In another example (about steering a car on an icy road), Wiener details how "small, fast impulses" combine with "knowledge of the performance characteristics of the system car-road" (132). What is abundantly clear is that Wiener regarded the act of steering a system to be a combination of knowledges and responses to the "feedback" that system gives; in other words, steering—and by extension, cybernetics—is a contingent, contextual form of movement or circulation.

Although the art of steering can generally be assumed to derive from human and nonhuman agents, it is critical to recognize that an *inhuman* "agency" (i.e. the technical apparatus) may steer as well.[54] A communication system that is unable to separate any signal from noise is, arguably, steered to a stop by that very noise. Noise governs communication, for it

[54] Versions of this argument have been made, most prominently, by Stiegler, *Technics and Time*; Donna Haraway, "A manifesto for cyborgs: Science, technology, and socialist feminism in the 1980s" (*Australian Feminist Studies* 4 [Autumn 1987]: p. 1-42); and N. Katherine Hayles, *How we Became Posthuman* (Chicago: University of Chicago Press, 1999).

is always present, always pushing beyond the bounds of data into form. But I have already established how noise has been read as imperilling communication: as Hayles remarks, because Shannon assumes information can only be quantified internally "through relational differences between elements of a message ensemble,"[55] this quantification removes the "con-" from text, which is to say that it removes the ability to derive meaning from reading across texts.

The difference between Wiener's theory of cybernetics and Shannon's theory of information is simple but significant: while Wiener acknowledges the role of steering in information, Shannon obfuscates that steerage. This is not to say that Shannon deliberately hid the role of noise or steering, but rather that he suggested it was internal to information, which he assumed to be objective and context-less.[56] Given the ongoing influence of both of these theories of computation, it is no stretch to suggest, as others have, that each theory blended into the other. Not only has the cybernetic model of reality been influential; theories of information as exclusively internal to a signal and acontextual have been grafted onto conceptual cybernetic loops. Instead of a cybernetic loop with an accompanying concept of constructivism—that is, the influence of steering or governing—the loop has come to be read as entirely self-sustaining and self-referential, whether in terms of its construction or interpretation. Thus it has been possible to make the socio-cultural argument that algorithms are "objective" and "reduce bias," as if they were never authored or revised by a governing body and mind; or to suggest that data collection is merely an empirical process absent the influencing conditions of an apparatus or the interpretive choices of cataloguing and indexing.

[55] Hayles, "Text Out of Context," p. 24.
[56] Of course, this was never the case. In, for example, *Algorithms of Oppression* (New York: New York University Press, 2018), Safiya Umoja Noble brings the notion of "steering" back into the algorithmic conversation. See also: Benjamin (ed.) *Captivating Technology*, 2019; Benjamin, *Race after Technology*, 2019.

The information theory that emerges in the middle of the 20th century has a number of consequences for theories and experiences of circulation. As is well known, in Marxist thought, the circulation of commodities gives rise to the concept of *alienation*. Much of Marxist thought (and its offshoots) has concerned itself with how the movement of capital reifies the object-commodity, alienating us from our own experiences. An internal theory of information continues that pattern of alienation by removing the worker from communication; ritual concerns over automation making jobs and labourers obsolete betray a common understanding of information as separate and therefore alienating.[57] In Shannon's theory, the already alienated labourer would be alienated even more by the lack of external relations. While information may be sense-perceived (or have an aesthetic), it would, according to Shannon's theory of information, not be experiential. (Recall that perception becomes experience only when it is connected with sense-memories of the past; that is, *context*.) Information that has no external meaning would therefore also have *no genre*, given that genre is a measure of a text's relationality to others and to its audience.

We know, however, that neither of those conclusions is true. While we might not directly experience information, we certainly experience its product or outcome. Anybody who has encountered a recommendation algorithm has experienced an outcome of that algorithm's recommendations, and by extension, the emotions they produce. Genre also emerges in unexpected places—there are entire genres of memes, for instance.[58] As Hayles notes, "the

[57] A paranoia at the substitution of machines for humans is not new, but, as Aaron Benanav has recently demonstrated, distinguishing automation-as-substitution from a more conservative technological augmentation of human labour is exceedingly difficult in practice; see Benanav, "Automation And The Future Of Work," (*New Left Review* 119 [Sept Oct 2019]: p. 5-38). Technological innovation has, "in spite of bringing about 'an unprecedented rise in total output', nevertheless 'strengthened the dominant role of human labour in most kinds of productive processes'" (11).

[58] For a discussion of different types of memes and their meanings, see Alfie Brown and Dan Bristow (eds.), *Post Memes: Seizing the Memes of Production* (Earth, Milky Way: Punctum, 2019).

manipulation of text and its arbitrary relation to context *is our context*."[59] What is at stake in information theory is not text that is without context, but instead text that *hides* its relationship to context by removing the concept of "steering" from its definition.[60] This is the information theory that surfaces today in unpredictable ways.

These logics of internal feedback threaten to guide understandings of communication, pushing the complexifying concepts of volunteerism, desire, and navigation—agency—to the side. But, in spite of how it may appear in relation to communication theory, as deconstruction has shown, there is no clear separation of internality and externality in text or language. Information is a part of natural language as much as it is a part of cybernetic computation. Information is not a perfect *image* of natural language, nor is it irreconcilably different from it—the consequence of which is a gap, or a slippage, between computer languages and natural languages. This gap provides an opportunity for the *cultural misinterpretation of information*.

What, I hope, is beginning to become clearer, are the ways in which a 20th-century emergence of the term "information" was uneven and patchy. Even though there are hegemonic theories of information, to isolate a singular lineage of the term or a consensus on its usage is not inevitable. Though this genealogy deserves greater attention elsewhere, let me here articulate its unevenness as precisely the source of a cultural logic of information. In both the work of Shannon and Wiener, there is ultimately a focus on the control of communication. In other words, the difference between the control of communication, and the disaster that is a failure of communication, has been taken to be the provision of information. By analogy, then, information (as the conflation of knowledge and truth in the form of certainty) has been assumed to offer

[59] Hayles, "Text Out of Context," p. 26.
[60] This is perhaps also what David Golumbia makes reference to as the "rhetoric of computerization"; see Golumbia, *The Cultural Logic of Computation* (Cambridge: Harvard University Press, 2009).

absolute control: this is the cultural logic. One place where there *is* consensus is in the assumption, first, that control matters, and second, that it is authoritative. For anybody versed in the machinations of power, this is a fair assumption to make.

The conflation of information with data. It would not be the whole story, however, to suggest that information is deemed authoritative solely in the terms of signals and noise. This authority also relies on a conflation of information with data. In the introduction, following Alexander Galloway, I gave an etymological definition of information and data—let me restate those terms here. The Latin meaning for *data* is "the things having been given," ensuring that, ontologically speaking, "Something has already taken place and, via a gift or endowment, it enters into presence."[61] To apply this definition of data to Shannon's theory of communication would be to assume that noise has already taken place and merely presents itself into communication, an assumption that *does* seem to be visually represented in Figure 2. Information, by contrast, "stems from the Latin for the act of taking for or being put into form…Thus if data open a door into the realm of the empirical and ultimately the ontological (the level of being), information by contrast opens a door into the realm of the aesthetic."[62]

Recall that, in theory, data comes first (the world is empirically observed and recorded), while information comes second (data is put into a form that communicates the outcome of said observations). This theorization has, however, encountered resistance. While things may exist in the world, their entering into presence for collection always involves acts of mediation that also

[61] Galloway, "Are Some Things Unrepresentable?," p. 87.
[62] Ibid., p. 88.

put data into form.[63] In spite of these challenges, where cultural logics of information operate, data and information are *represented* as the same thing; indeed, they often exist in a tautological relationship to one another, evident in the commonplace and synonymous linguistic uses of the two words. The problem with this conflation is that, since data is taken to be given (and therefore true), information is fixed with the same authority as the empirically verifiable. Putting aside the specious notion that what is observed is automatically true, what guarantee is there that any consequent form is equally true, verifiable, or authoritative? In this conflation, it is easier to understand how the information that Fox News disseminates that impeachment proceedings are a sham can be taken to be something *more* than a story, the statement "there was no quid pro quo" functioning as a datum for Fox News audiences, providing retrojective certainty that "no quid pro quo" had "already taken place."

In one, curious, sense, the tautological use of "information" and "data" to define each other both supports and extends a theory of information's internality to communication systems. Noise is treated as a datum, merely a presence in communication—which, to be sure, it is—rather than also as one *form* of the system and the production of communication within it. The relationship between signal and noise *qua* this logic of information both articulates noise as an internal datum or presence, and attempts what is, in effect, a phenomenological bracketing of noise as extraneous to communication *qua* experience, thereby pushing away that same noise as a kind of externality or non-presence. This paradox, in practice, allows for the contradictory assumptions that noise both *is* and *isn't*—that noise both isn't the signal, and therefore isn't really, or shouldn't be, present, but also that it is the only "thing" that makes the signal present in

[63] See especially Lisa Gitelman (ed.), *Raw Data is an Oxymoron*, (Cambridge: MIT Press, 2013); and Melissa Gregg and Dawn Nafus, "Data," in *Keywords for Media Studies*, ed. Laurie Ouelette and Jonathan Gray, (New York: NYU Press, 2017).

the first place. This paradox inheres in Shannon's theory of communication, and it works just fine, because, in a closed machinic system, everything happens internally. But that paradox cannot rely on the comforts of internality in the external world, one that is filled with context(s) and, I would add, storytellers; a place where, too, noise is constitutive of communication, at least as much as any signal. Noise, as information, has an aesthetics, and as such will always *form* experience and meaning.[64] Thus it is possible to read those same paradoxical assumptions of a system's internality into Goodman's assertion (regarding digital information fidelity), that noise or misinformation is both outside the system of "information that is truthful and supportive of democratic discourse," and, simultaneously, an extant and exigent *internal* threat to that system.

The problem, then, is as follows. This paradox, contingent on the suturing of a tautological relation between data and information to a theory of the internal characteristics of communication systems, and perhaps, also, a result of a slippage between a mathematical theory and more popular cultural discourses of information, comes to stand in as the very source of information's authority. Just as data has already taken place and afterwards is "given," information is taken to be a given, and bad information or noise, analogically, needs to have its presence erased. Information is not, here, an aesthetic form that needs to change shape, but a datum, and even though it is only able to "undermine discursive potential" precisely because it is *in-form*, the prognosis for bad information requires the prescriptive removal of its presence, rather than an effort to contend with the form of communication itself.

I want to be clear that I am not suggesting that either data or information are bad, that there is no such thing as data, or that mis- and dis-information have no negative consequences.

[64] Geoffrey Bowker and Susan Leigh Star framed this point nicely in *Sorting Things Out* (Cambridge: MIT Press, 1999, p. 291): "One of the interesting features of communication is that, broadly speaking, to be perceived information *must* reside in more than one context. We know that something is by contrast with what it is not" (290), and thus, "information is only information when there are *multiple* interpretations."

Instead, I want to point towards how the conflation of information and data gives the former the status of an ontological entity, rather than of a representational form. In other words (and this is the key assertion I am making with respect to this characteristic of a cultural logic of information), the act of representation inherent in information tends to be either obscured or forgotten, especially when information is considered, not in terms of its technical meaning, but in terms of its etymological and common sense definition. Here, a mixture of data, information, truth, knowledge, and certainty, come together in uneven fashion.

The purpose of this mixture is authority or control, which I have suggested is central to a cultural logic of information. Information, conflated with data, is something empirically observable and measurable, and, moreover, may even be claimed to be, finally, the "proper" representation of reality. Whether this claim is the result of an outsize assumption that information *qua* data abrogates representation, or merely that it is *the* true and authoritative representation of phenomenal reality, is a question that deserves interrogation elsewhere. What matters, here, is that either explanation would seem to proffer the opportunity for control of the observable world, and reality itself.

A myth of computer code's "sourcery." I have suggested that control, as a kind of authority, may be the central "goal" of a cultural logic of information. To develop and specify that control as *of the observable world*, according to the conflation of information and data, is central to this cultural logic, because of the relationship between information technology, computation, and the observable world. This relationship requires elucidation elsewhere, but, just as the kind of mechanical reproduction that Benjamin identified in photography and cinema shifted human relations with the observable world by altering *how* it was observed, so too has computation

altered those relations, not only by altering how observation happens, but *what* phenomena may be observed.

Computers have allowed human beings to see things that we previously could not see, as well as to see what we already could, albeit differently. To understand this point requires not only a conception of observation in the embodied terms of human eyesight, but also an acknowledgment of how observation is capable of producing both *likenesses* and *imaginaries* of those things in question. The example of our changing climate is prescient here. The human eye might observe a massive wildfire, or another destructive weather event, and extrapolate or imagine how that observation is connected to climate change. By contrast, a remote webcam video of a glacier, tracked across several years, and compiled into a truncated timelapse, might demonstrate the glacier's recession—and, consequently, climate change—directly to the human eye. Even that shift in observation may not be enough, however, to demonstrate a causational relationship between glacier recession and climate change. Here, a combination of this timelapse, and the collection and construction of data based on glacier samples, temperature readings, atmospheric conditions, and so on, combine to create a *picture* or likeness of the changing climate. This picture is generally referred to as a scientific model.[65] In many cases, given the immense scale of planetary climate change, the construction of these models requires their assembly over time, and they may only be pictured or modelled successfully with the help of computers.

To live in the 21st century is, then, to a certain extent, to live in a world where visuality and observation can exist beyond human perception.[66] It is also to live in a world where writing

[65] Chun, "Hypo-Real Models."
[66] Kyle Stine, "Critical Hardware: The Circuit of Image and Data," (*Critical Inquiry* 45, [2019]: p. 762-786). To be clear, the question of whether computers are "visual media," or not, is not a settled one. There is *some* agreement that computers are not inherently visual tools, in part because, as Mitchell has argued, "there are no visual media";

may exist beyond human perception. The source of this expansion is computation, or, more specifically, programming languages. In both cases, what I am referring to is the difference between computers as they are electronic hardware and what gets called "back-end" software (source code), and what the proverbial user of a computer (who is neither a hard- or soft-ware engineer) encounters when they put that computer to work at any given task. This is the difference between what a computer is doing and what I can perceive it doing. It is not that a computer provides a better or purer image, but that it may provide a different way of picturing, that is, of representing reality, one that sometimes (but not always) simulates the human eye. The ability to know what a computer is doing is still a relatively specialized type of knowledge, and those with access to this knowledge—who can access and explain the back-end beyond perception—occupy a position of privilege, both in terms of computation in practice, and as a form of control in principle. These figures are programmers.

Because my focus is on sketching the outlines of a cultural logic of information, I will not elaborate on the complicated relations between observation, writing, and representation in computation. Suffice it to suggest that this expansion of the terms of representation is culturally articulated as a site of human control over the phenomenal world. This is one of the many arguments that Wendy Chun makes in identifying what she calls a "fetishization" of

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see Mitchell, "There Are No Visual Media" (*Journal of Visual Culture* 4, [Aug. 2005]: p. 257-266); cf. Nicholas Mirzoeff, *An Introduction to Visual Culture* (New York: Routledge, 1999). But Stine suggests, instead, that "both the electronic components and the logic of computing derive from the interchange between images and data," an interchange that may be considered through the "metaphor of a circuit in which practices of computing and imaging continually loop back and interchange with one another" (766). Without going into the semantics of this process, what matters here is that this interchange or looping, in contemporary computing, is increasingly performed absent human intervention (which is not to say that it is autonomous but, rather, that it is *automated*). And so, "visuality" and writing can exist, on a technical level, beyond human perception. In addition to the relations between observation and the modelling of climate change, one could also think, more simply, of human "interaction" with programming languages while using computers. To many, using an application like Microsoft Word involves interacting with Word as it is an interface—one is seldom watching the source code itself (the "behind" of the interface) as it runs. Much of the act of writing itself thus occurs "beyond" typical human perception.

"sourcery."[67] To be clear, the programmer is the "sourcerer," programming language the "sourcery." Media theorists and the general public alike have mythologized code as both source and action. Code is taken to be an "autonomous" language that Chun compares to *logos*: "code as source, code as true representation of action, indeed, code as conflated with, and substituting for, action."[68] And what does code, as both a true representation of action, and as substituting for action itself, sound a lot like? Nothing but the ways in which a conflation of information with data assumes either that information is a true representation of phenomenal reality, or that it abrogates representation altogether.

In the mythology of "sourcery," which privileges software above all else, gone are the materiality, vicissitudes, and mistakes, in the machine's hardware, and of the authorship of software programs. The machine and the human are, at best, obfuscated, and, more often, erased entirely in favour of a belief in source code as logos. Although code is treated as a tool (a means towards an end), the relation of tools to *craft* is ignored, such that code is assumed to merely reveal an objective reality, rather than to construct it. A paradigm case for this logic is the predictive or recommendation algorithm, which, after gathering data on users, claims to predict their actions; for example, Instagram's "Discover" feed claims to reveal to a user what they are interested in, based on their usage patterns. A social media's content-recommendation algorithm is engaged in a recursive relationship with the human (or bot) it interacts with. Because code is treated as if it were the source of its own action, absent human intervention, it justifies itself—not only to itself—but to an external actor like a human, usually through a process of persuasion of its utility. It does so by proffering the consequences of its action, whether as the content provided by a "recommended feed" or in the form of an interface layout. In this sense, it would

[67] Chun, "On Sourcery and Source Codes," in *Programmed Visions*, p. 19-54.
[68] Chun, *Programmed Visions*, p. 19.

seem as though the consequences of code (e.g. the recommendations it makes) are internal to it, much like information is internal to a communication system. But, just as communication systems are better thought of as cybernetic loops contingent on steering, so too has code been written, or copied, or referenced, whether by a single author, or (more frequently), by many.[69]

What matters here is that computation is culturally attributed an origin, or essence, in software and source code, that assures that computing is culturally read less as an apparatus that helps to observe and to understand, and more as an omniscient (one might even say transcendental) eye. Code is assumed to have a sovereign ability to adjudicate over human problems, while the programmer is assumed to be both the prophet of a higher order of knowledge, and the clerk who keeps the transcendental, executable text. A myth of sourcery subtends a cultural logic of information as something objectively true (the universal language of code) and authoritative (the sourcerer or transcendental genesis of code). In so doing, computation becomes a source of control, not only according to its ability to provide allegedly "true" representations, but also according to its ability to dictate the terms of representation itself.

In "sourcery" we can find yet another justification for control. The "sourceror" plays God with the data-cum-information that computation both supplies and requires. This power to control representation, through both a logic of information and of sourcery, is taken to provide certainty and authority, especially of the kind that can mitigate the risks of disaster that may be both a condition of a network society, and produced by the unknowability of the kinds of observations, like of ongoing climate change, that exist beyond immediate human perception and apprehension. The desire to view network societies with omniscience, or to "code away" their

[69] As Matthew Kirschenbaum writes, in "Software, It's a Thing" (*Medium*, July 24, 2014), "Writing software is not an abstract logical exercise; it is art and design, intuition and discipline, tradition and individual talent, and over time the program takes shape as a wrought object, a made thing that represents one single realization of concepts and ideas that could have been expressed and instantiated in any number of other renderings."

problems through techno-solutionism, relies on the assumption that worlds "rebel" from control because whomever holds the most knowledge-power simply does not have enough of either element of that grid. The solution to this problem is assumed to be more information, which, according to its provision, whether by visualizing the invisible, isolating the proper signal, or acquiring enough data, should, finally, provide the determinative forces to authoritatively manage the gaseous modulations of control.

A philosophy of computationalism and consequent assumptions of information's objectivity and authority. The roots of justification for control may extend even deeper than information and representation, and into knowledge itself. Information, whether embedded in analogue machines or digital computers, relies not only on the authority of its selectability, but also on the authority of the machine. As David Golumbia has argued, the cultural influence of one machine—the computer—"overlaps with one of the most influential lines in the history of modern thought, namely the rationalist theory of mind," which assumes that "rational calculation might account for every part of the material world."[70] Amongst other relations, rational calculation is coextensive, not only with the conflation of information and data, but also with the mythos of the source. Computationalism is "the view that not just human minds are computers but that *mind itself* must be a computer—that our notion of intellect is, at bottom, identical with abstract computation, and that in discovering the principles of algorithmic computation via the Turing Machine human beings have, in fact, discovered the essence not just of human thought in practice but all thought in principle."[71] Like any cultural logic, a philosophy of computationalism is neither unified nor consistently coherent in its foundations and cogent about its convictions.

[70] Golumbia, *The Cultural Logic of Computation*, p. 1.
[71] Golumbia, *The Cultural Logic of Computation*, p. 7.

Thus computationalism may both use an Enlightenment model of knowledge to suggest that computers release "man" from tutelage, at the same time as the conflation between computer and mind can be mobilized to squash the kind of scepticism associated with a push towards autonomy. This contradiction relies not only on the conflation of computer and mind, but of software and biological heredity.[72] Just as algorithmic computation is the essence of human thought, so too might life be reduced to programmable code, where "better" code can be hierarchically applied to a conception of "better" humans. This philosophy of computationalism often supplies the kind of techno-solutionism gestured to in the previous section: the belief that computers can solve human problems better than humans can. These forms of optimism can imbue information with even more authoritative power (and hierarchize it). Stories are not necessary for making sense of experience, when information technology can already do so for us. What's more, whether this logic fixates on stories, noise, or representation more generally, each are read as possible sources of disaster, whether they undermine information, signals, or democracy as the utopian possibility of reality.

Now, it is not so simple to claim that the whirlwind sketch I have given here as, hopefully, a fairly clear logic, may function with that same clarity in practice. In reality, this logic, in its distribution of conceptions of information, and the justifications it may provide for information *qua* control, will surface in stochastic ways. There are many reasons humans may aspire to control, over the past, present, and future. Suffice it to say, for now, that control appears to make experience safer, most prominently by appearing to reduce the future-oriented potential of risk. A cultural logic of information seeks to supply a rationalisation for the pursuit of control.

[72] Chun, *Programmed Visions*, p. 101-31.

Information *qua* control appears to make experience safer by purporting to reduce and even eliminate the need for comprehension, as a kind of aesthetic judgment, and perhaps more importantly, as something generic.

It is here, then, that I want to venture another definition of information, as a *genre*. A combination of knowledge of, and authority over, representation provides the kind of certainty that is assumed to steer control. But if information is indeed a genre, it is a different one from storytelling, whose "good" characteristics are considered to be wisdom, tradition, and the exchange of experience, and whose bad characteristics are articulated as conservatism, atavism, and even a kind of noise or misinformation. Storytelling is not ubiquitously received within any given culture, let alone across different ones. I nevertheless want to put forward the following claim: in much the same way that a misplaced comedic line could be said to ruin the tenor and effects of a tragedy, the genre of information supposes that stories ruin information. Indeed, though I am suggesting that information might be interpreted as a genre, as an object of certainty and control, a cultural logic of information actually assumes the opposite—information needs no interpretation, and has no genre. It simply is, or is not. In Chapter 3 will elaborate on some examples that demonstrate just how wrong these assumptions are. By contrast, I claim, information is always subject to interpretation, which I am calling scrambles for narrative representation. These scrambles are staged in the terms of genre.

Chapter 3: Witnessing the Network: Storytelling and Context

In this chapter, I want to elaborate on a definition of information as a genre. More specifically, I intend to show how the generic assumption that information is genre*less* shapes expectations of and for information and experience. In much the same way that there is no "outside" to ideology,[73] there is no outside to genre, as genre is subjective actions in, and interpretations of, the world according to recognizable, and therefore cultural, expectations. To claim that information is genreless is, actually, to make a genre claim. I aim to test this argument in two contemporary cultural objects: Karl Ove Knausgaard's magnum opus, the epic series *My Struggle* (as well as its cultural reception), and a curious genre of YouTube video that I will present, for now, as a "lifestyle" genre. I am reading both *My Struggle* and "lifestyle" videos as a communication between book/source and (re)viewer/destination, searching for the kind of genre claims audiences make.

Both cultural objects, whether intentionally or not, style themselves according to the terms of a cultural logic of information. They play with the indeterminacy between signal and noise, conflate information and data, and inadvertently stage questions about the relations between information, control, and observation (the latter of which, in this case, refers to the audience that "witnesses" each text). To read *My Struggle* and YouTube as "texts" that proffer allegedly authoritative, knowledgeable, and genreless information, as opposed to stories embedded in the hermeneutics of genre, is actually to acknowledge that appearances are deceiving. Audiences always endeavour to interpret these texts—rightly so, I might add—and do so through scrambles for narrative representation.

[73] Althusser, "Ideology and Ideological State Apparatuses."

These scrambles may be partially articulated as the provisioning of context(s). Contexts are not only the norms and conventions that structure living itself, but also the expectations of and for experience and the world that, when articulated together—that is, culturally—Berlant calls genre. By training my gaze on context, however, I am relying on an assumption of its externality to the proverbial "system," in much the same way that Shannon articulates "semantic meaning" as external to information transmission; in this case, the internal system is the novel or the YouTube video, and the ability of an audience to grapple with each is the supply of an "external" interpretation. In this way, an inchoate theory of networks haunts this chapter. While I do not disavow networking theorizing that characterizes networks as a series of relations between nodes, I do suggest that that characterization frames networks as *totalities*, that is, as massive but closed systems. Instead, through an emphasis on the provision of context, I arrive at a conception of networks *also* as overabundances of context, and in so doing, I hope that this attempt to reckon with the presence of possible externalities that can supply some explanations for how information is, paradoxically, generically interpreted as genreless. In pithy terms, theorizing networks, as relations amongst nodes, struggles to account for the vicissitudes of experience. By contrast, storytelling supplies explanations, in theory and in practice, for the excesses of those relations and nodes, primarily by *crafting* the concept of the network as it is experienced; not as a picture of relations and nodes, but by *imagining* the kinds of stories that coalesce to form the exchange of experiences.

I: Experiencing, Imagining Networks?

What of the network, as it is theorized as relations amongst nodes? One way to think through this theorization of networks is to return to the terrain of observation, and to ask how networks are

pictured. Here, following the work of W.J.T Mitchell, to picture the network means to search for its "likeness," or to construct a representation of networks that is a "semblance" of networks themselves.[74] More frequently than not, attempts to picture reality as an image fixate on reducing the role of mediation inherent in any act of representation. The image, it is argued, should be the true representation of reality; indeed, it should display such fidelity to the world that it may be capable of substituting for reality itself.[75] This desire for such a "purity" of representation that it may be abrogated entirely, as I argued in the previous chapter, also emerges through conflations of information and data, and through "sourcery." By contrast, for Mitchell, one must begin a study of representation by thinking, first, of vision as "a product of experience and acculturation," such that "what we are matching against representations is not any sort of naked reality but a world already clothed in our systems of representation."[76]

As such, to ask how networks are pictured is actually to consider which systems of representation combine to produce those images that come to be considered fair representations of networks, and of network theories.[77] It is fair to assume that attempts to picture networks frequently try to construct semblances or likenesses of networks that are *so* faithful to networks, as totalities, that they function, not as information, but as *data*, drawing authoritative portraits that are assumed to proffer knowledge and control. This is precisely the argument that Galloway makes in "Are Some Things Unrepresentable?" when he argues, perhaps controversially, that "*only one visualization has ever been made of an information network*."[78]

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[74] See especially W.J.T. Mitchell, *Iconology: Image, Text, Ideology* (Chicago: University of Chicago Press, 1986, p. 5); and Mitchell, *Image Science* (Chicago: University of Chicago Press, 2015).
[75] See especially Mitchell, "What is an Image?" in *Iconology*, p. 7-46; and Mitchell's more recent update of this work, "Image X Text," in *Image Science*, p. 39-47.
[76] Mitchell, *Iconology*, p. 38.
[77] The production of images according to systems of representation as a distinctly *political* condition is a key feature of the work of Jacques Rancière, especially in *The Politics of Aesthetics: The Distribution of the Sensible* (New York: Continuum, 2004), and in *The Future of the Image* (New York: Verso, 2007).
[78] Galloway, "Are Some Things Unrepresentable?", p. 90.

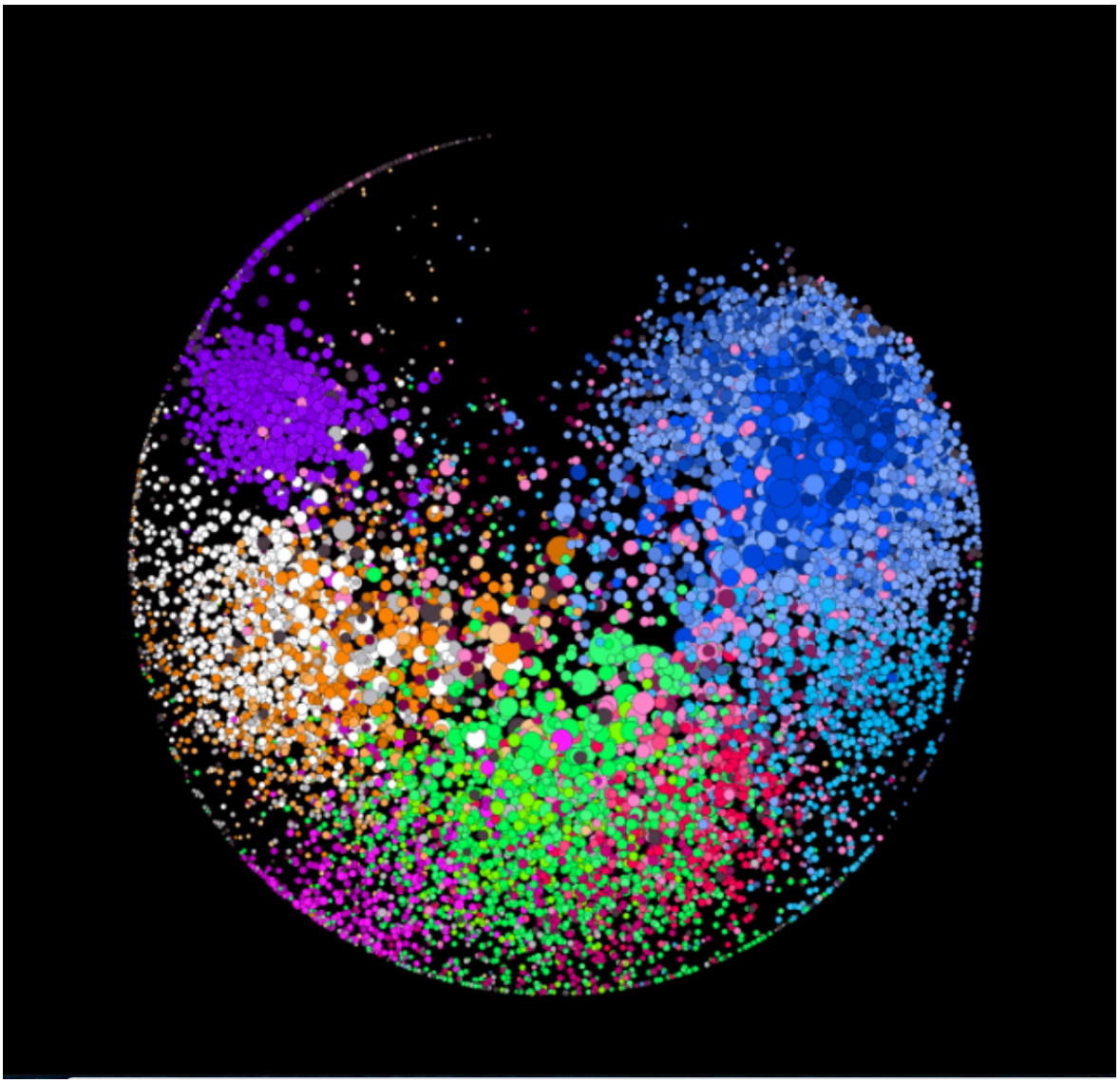

Figure 3: A Graphika Visualization (https://graphika.com/our-story)

Galloway hedges his bet on the difficulty one encounters when converting data into information. Recall that data enter into presence and need to be put "into form" as information, therefore opening a realm into the aesthetic. This gap, as well as attempts to bridge it (like Shannon's theory of communication), has proved troubling for the world of information technology, which relies on the visualization of data to function. As such, data:

> exists first and foremost as number, and, as number, data's primary mode of existence is not a visual one…any visualization of data must invent an artificial set of translation rules that convert abstract number to semiotic sign…any data visualization is first and foremost a visualization *of the conversion rules themselves*, and only secondarily a visualization of the raw data. (88)

Thus, what Galloway calls the "hub-and-spoke" aesthetic predominates (Figure 3),[79] a scramble to represent each "node" of a network, the whole of which inevitably occupies an "aesthetic space [of] one" (90). Galloway: "*we have moved from a condition in which singular machines produce proliferations of images* [cinema]*, into a condition in which multitudes of machines produce singular images*" (94). To be sure, the picture in Figure 3 undoubtedly portrays a semblance of the network as a totality. Indeed, it is an image that, in its spherical geometry and concentrated bursts of colour, looks a lot like an abstracted version of pictures of the planet from space. What Galloway wagers is that this picture says virtually nothing at all, for the representation it supplies is totalizing and therefore singular, at best, and ignorant of its embeddedness in any system of representation.

To many, Galloway's argument may seem provocative, even bordering on the cavalier. While I agree with Galloway's assertion that these pictures are ubiquitous, and that, in many ways, they all look alike—and therefore struggle to *imagine* the conditions of networks, both as concept and experientially—I am less convinced that they are singular, and therefore have no discursive use. Instead, as this chapter has foregrounded, I want to suggest that Galloway's

[79] It should be mentioned that visualization companies like Graphika (URL: https://graphika.com) dominate the worlds, amongst others, of finance, politics, and technology. The hub-and-spoke aesthetic is especially prominent for analysis of disinformation trends—the image aims to trace disinformation to some originary data point.

pictures are *not* how networks are typically experienced, and therefore represented, at least by those subjects who encounter networks, in everyday life, without considering them theoretically. To come into contact with networks experientially, that is, quite simply, to be a human alive in an era of information technology and computation, is quite different from attempts to picture networks as theoretical totalities. Galloway is right to suggest that contemporary technical systems attain what seems to be a monolithic power and control, and that attempts to picture that control often fail to do more than simply delineate a static "likeness" of networks, a failure that is tantamount to trying to fix the modulations of control in time and space. But he forgets that subjects operate within, and communicate amongst, networks in ways that may exceed or elide the grasping hands of power or the gaseous envelopment of control.

Subjects experience networks, I wager, not only by attempting to picture them, but also by imagining them. The experience of networks as, for example, the user of a social media like Twitter, Instagram, or Facebook, is the experience of an overabundance of context. There is simply too much happening to keep track of it all in the service of faithful representation. Instead, I am suggesting that subjects supply imagination, whether to fill in gaps between nodes that are not immediately observable (e.g. tracking a contentious conversation online to its origin), or to grapple with cultural, social, or infrastructural relations that exceed straightforward conceptualization (e.g. struggling with the recognition that some of one's contacts engage receptively with disinformation that is, to you, obviously a ruse).

Galloway argues that, by visually abrogating difference, the existence of singular images means that "one cannot talk about genre distinctions" (90). I argue the opposite. A singular image may not supply genre distinctions, but experiences most certainly do. Much of the work imagination does is generic, and that labour surfaces as stories. In the preceding discussion, to

experience networks primarily referred to the act of using the internet, but, in the following section, I want to isolate the *experience* of networks, first, in Knausgaard's *My Struggle*.

II: "Listing the Items that Come By": *My Struggle* and the Network

In addition to the network as a picture—a "snapshot"—it might be possible to suggest that other such attempts have been made to visualize, or, more specifically, to conceptualize, networks. One might argue that conceptualizing is different from visualizing. This is a worthwhile conversation (but outside of the scope of this project). Suffice it to say that delineating a meaningful difference between text and image, or, one might analogise, between concept and visual, is not so straightforward. The difficulties of separating the concepts of "text" and "image" are unrelenting. In more recent years, Mitchell has suggested "there are no visual media": "the opening gambit in the pursuit of a new concept of *media taxonomy*, one that would leave behind the reified stereotypes of 'visual' or 'verbal' media," would require stepping back, and providing analysis of 'sensory and semiotic elements…both at an empirical or phenomenological level and in terms of their logical relations.'"[80] It is, then, for reasons both theoretical and practical, not worthwhile, here, to separate visualization and conceptualization. Both may operate on the order of experience. Singular network images *are* experiential conceptualizations of networks, though, perhaps, ones that don't say much about experience. In search of a (perhaps unwitting) concept of networks *qua* experience, I instead turn to Knausgaard's *My Struggle*.

At 3,600 pages, and six volumes, *My Struggle* is not only considered to be Knausgaard's magnum opus, but one of the most popular novels of the 21st century (by popularity, I only mean attention, not necessarily positive reception). The entirety of the series is constructed with

[80] Mitchell, *Image Science*, p. 130.

material from the author's day-to-day life, which is less arranged into a clear narrative than it is listed, day after day after day. As such, it "has been described as an autobiographical novel, sometimes with 'novel' in scare quotes, to indicate its excessive truthfulness."[81] This excessive truthfulness has perhaps been a key source of its popularity, in part because the supposed honesty that Knausgaard provides has publicly infuriated many of his relatives, as well as readers who may identify with them. The other source of its popularity, it could be said, is that Knausgaard's excessive truthfulness, the minute detail of that honesty, arranged seemingly without hierarchy, as well as the sheer volume of the entire series, have all combined to render classification of Knasgaard's work exceedingly challenging.

It is worth quoting Knausgaard, at some length, if only to demonstrate exactly what his writing is like. I have chosen the following passage, almost at random, after spending several minutes thumbing through the series' first volume:

> The year before I arrived here a boy had been killed by a lump of ice falling from a roof. Since then all roofs were cleared of snow from almost the moment it fell, with dire consequences; when mild weather came virtually all pavements were cordoned with red-and-white tape for a week. Chaos everywhere.
>
> "But all the fear keeps employment levels high," I said, before devouring the slice of bread, getting up and drinking the last gulp of coffee. "I'm off now."
>
> "Okay," Linda said. "Feel like renting some films on the way back?"
>
> I put the cup down and wiped my mouth with the back of my hand.
>
> "Of course. Anything?"

[81] Sophie Pinkham, "Scandinavian Style," *n+1* (November 13, 2013).

"Yes, you choose."

I brushed my teeth. As I went into the hall to get ready, Linda followed me.

"What are you going to do today?" I asked, taking the coat from the cupboard with one hand while winding the scarf round my neck with the other.

"Don't know," she said. "Go for a walk in the park maybe. Have a bath."

"You okay?" I said.

"Yes, I'm fine."

I stopped to tie my shoes as she, with one arm supporting her back, towered above me.

"Okay," I said, pulling my hat on and grabbing the computer bag. "I'm off."

"Okay," she said.

"Call me if there is anything."

"I will."

We kissed, and I closed the door behind me.[82]

There is not a tremendous amount to say about a passage like this, save to note its prominence, by virtue of its ubiquity, throughout 3,600 pages. Though, elsewhere, Knausgaard does digress into more thematic conversations, his work is littered with passages not only like these, but other versions of this same practice of listing, whether they describe, for pages, the contents of his fridge, or passersby on the street. In a review of the final volume in the series, Fredric Jameson, in an answer to the question "does anything happen in it?" answers "Mostly he takes his three

[82] Knausgaard, *My Struggle: A Death in the Family*, trans. Don Bartlett, (New York: Farrar, Stauss, and Giroux, [2009]: p. 214-15).

kids to school, goes home to write, sits on the balcony and smokes, picks them up in the afternoon, shops and buys them ice cream."[83] Jameson calls this form of writing "itemisation":

> We have, in postmodernity, given up on the attempt to "estrange" our daily life and see it in new, poetic or nightmarish, ways; we have given up the analysis of it in terms of the commodity form, in a situation in which everything by now is a commodity; we have abandoned the quest for new languages to describe the stream of the self-same or new psychologies to diagnose its distressingly unoriginal reactions and psychic events. *All that is left is to itemise them, to list the items that come by.* (Ibid., emphasis mine)

Jameson suggests that *My Struggle* is a glorified exercise in cataloguing, one that goes beyond the reflexive exercise of writing boredom, up to the point where "We do wonder why we take such satisfaction in the notation of all these daily things." Indeed, Jameson spends much of the review wondering about his own reactions, answering the question "is it any good?" by noting that, while there may be no "satisfactory answer" to that question, it can be tentatively answered "by the information" that it has become a "literary sensation."

It is worth pausing a moment on Jameson's confusion, which surfaces less as distaste with *My Struggle* than as uncertainty about its qualities and categorization, given his reputation as perhaps one of the most incisive theorists of postmodernity. What of this fixation on listing, or itemisation? What kind of representation does Knausgaard construct? I want to suggest that *My Struggle* is primarily concerned with the provision of information, whether in the quoted and excessive description of a banal conversation immediately before leaving the house, or in the

[83] Fredric Jameson, "Itemised," *London Review of Books* (November 8, 2018).

incessant (and repetitive) notation of items, people, places, days, and thoughts. These "items" are less narrated, or exchanged *as stories*, than they are presented as endless information about Knausgaard and his life. In one sense, one might go so far as to say that they are not quite *in-form*—given any particular semiotic or semantic status—so much as they are articulated merely in terms of their presence. In *My Struggle*, items "enter into presence" less as information than as information's conflation with data. In so doing, Knausgaard simulates a radical form of transparency (shameless sharing, itemisation) that can be likened to the conceptualization of a network: his own. Look at all these items, he seems to say—here's a node, there's a node—which ones matter the most? In a curious sense, the function of Knausgaard's writing is to make *My Struggle* appear as something genreless. It no doubt supplies as close a picture of his own life to reality as one might desire, but it seems, as a kind of data-cum-information, at least initially, to lack the conventions of genre, and to push back against any attempts at such classification.

Unfortunately, that conclusion is a specious one. To itemise every-thing side by side, as if simulating the absence of prioritisation, rather than even to point, as indexation does, is not necessarily to successfully picture a network, or to escape the confines of genre. In practice, just as closed communication systems, or the conflation of information and data, are not possible, neither is *My Struggle* capable of pulling off the feat that I am interpreting within it. Instead, audiences scramble to narrate generic forms of representation. Indeed, Jameson himself is not immune. "The reaction that is most important," he writes, "is what [Knausgaard] will think of my reaction," a realization of "newfound intimacy" that seems to both confirm the literary sensation and overwhelm the ability to write a critical review.

Jameson appears to struggle to figure out what he wants to say about *My Struggle*. As a trained literary critic, when presented with a novel, he expects it to have a genre. At the same

time, as I have shown, he also seems to read the practice of "itemisation" as a kind of datafication of information, embedded as it is within a cultural logic of information (and, to be sure, to read this series is to feel as if one is, at times, poring over the data of Knausgaard's life). Therein, Jameson may also be read as turning towards a kind of theory of information's internality that is, likewise, a part of that cultural logic.

The "self-same," the "unoriginal," and the catalogue, are, for all intents and purposes, a figurative kind of *noise*.[84] It is only the transcription of any multitude of these items, that, when combined with reader interpretation, renders each and any into a signal, for Knausgaard and the reader. *My Struggle* is, amongst many other things, a series that inadvertently stages a theory of communication through its network: what in communication can be determined to be a message, and what is merely noise? And if it's noise all the way down, what then, since the signal is generally the expected object of critique? *My Struggle* is not about message semantics; it is about the separation of text from context, moving between the "entering into presence" of a text, and that text being put "into form" (i.e. genre)—a relationship that is itself a rumination on the relationship between signal and noise.

This is, finally, the cultural effect of *My Struggle*. It may lay claim to practically any generic categorization precisely because the text manages to bypass the sensibilities of criticism and arrive at an intimacy with each reader. *If it's noise all the way down, let the reader choose the signal. My Struggle* seems to enter into presence, but not into form. And yet, we know that noise is not merely present in communication but informs it. Although the "itemisation" that

[84] There is also a modernist history of "not separating the profound from the trivial," whether in the figure of Benjamin's flâneur, theories of everyday life, or James Joyce's Leopold Bloom. What makes Knausgaard different is the lack of strangeness and the lack of heterogeneity in his writing. There is no apparent signal: no content that estranges itself, no form or language that stands apart as more meaningful than any other (the writing is often clichéd), nor any meta-message about writing or living that cannot find its antinomy elsewhere in these 3,600 pages.

Knausgaard performs might seem to suggest the act of cataloguing—of listing without pointing, unlike the index finger, which points—it is clear that *My Struggle* has at least some kind of curatorial voice. *My Struggle* is a story of circulation and stages a kind of network; Knausgaard is what Wiener would call the helmsman. The items catalogued (the things, but also the people, emotions, and thoughts) *inform* the text. More specifically, given the eerie intimacy itemisation imparts on the reader, it is precisely this intimacy that perspicuously informs the reader; an intimacy that, in the reader, meets genre expectations that differentiate the story from information. As Jameson suggests, this kind of intimacy "has either never before been staged by literature, or else has existed (as my being-for-others) at every moment of everyone's life." The either/or of the never/forever is just noise. It is up to Jameson, or any other reader, to determine the signal, and it is in this radically open receptive act that readers obtain information and make genre distinctions.

Knausgaard has managed a literary feat that is definitively new—not because there is anything particularly original in or about the text, but because the text is really just a repository for the new-as-context, a new that is actually each and every reader's individual intimacy with *My Struggle*. Through 3,600 pages of unprecedented itemisation, personal intimacy, and even shamelessness, Knausgaard achieves a voice that is, paradoxically, both uniquely specific to himself, and absent any uniqueness. As a result, readers like Jameson supply a wealth of imagination, one that both fills in the inevitable gaps in the text in its capacity as a false kind of data, and imagines it in terms of its excesses.

The consequence of this unexpected, and perhaps radical, openness to context, is the provision of reader experience onto the text. If *My Struggle* is a kind of network, it is one experienced by each and every reader, not as a homogeneous picture, as one might assume in the

fixed format of the novel, but as the construction of a representation of the text according to contextual reader imagination. A different way to make this remark is to consider the novel as network in terms of readers as observers. If one takes the novel to allow readers to observe private inner worlds—an argument that Benjamin makes by suggesting that we do not *participate* in novels as we do stories—*My Struggle* proffers the reader what seems like the unadulterated observation of its contents, in their simulated entirety. What matters, finally, and perhaps ironically, to Knausgaard's unwitting success, is the series' popularity. Readers *do* participate in the "literary sensation." In one sense, one could say that where Knausgaard presents a picture of a network, in the form of the novel, that picture always spurs its conceptualization, beyond likeness, and into experience.

It is not only that readers supplied the text with their own experiences, or that the text opened up new opportunities for imagining experience, but that, together, each reader's experience could be exchanged amongst the greater whole that was the series' popularity. This exchange of experience is storytelling. And it has genres, whether they are in the moralizing belief that Knausgaard overshared, a fascination with excessive truthfulness, or an odd satisfaction experienced at the notation of daily things. Here, the overabundance of context that could emerge, out of *My Struggle*, and in the form of its cultural popularity, was what mattered—not the text itself, but the exchange of experiences it thereafter produced, which, in one sense, could also be described as control over the series' cultural reception. In the end, Jameson was right: *My Struggle*'s literary sensation (over which, post-publication, Knausgaard would only have so much control) was, precisely, the critical source for its interpretation, for, what mattered was not whether it was any good, but the stories that others could craft out of it.

III: Our 4K Binaural YouTube Community

Though I have argued that it is possible to think *My Struggle* as a picture of a network, and its cultural reception as its experiential conception, it would be a specious distinction to claim outright that picturing is passive, while conceptualising is participatory. The pursuit of representational "likenesses" as pictures is, too, participatory; after all, as Mitchell suggests, differentiating between text and image is not so simple, and neither, then, should differentiating between passivity and participation be. While avoiding the characterization of this differentiation as a simple binary, I do, however, want to draw a distinction between experiential participation in storytelling, and the more passive reception of pictures (and novels). Participation is here characterized by the imposition of context, and, if one were to consider, once again, the kinds of pictures of which Galloway speaks, participation is not, therein, inherently something that may be visualized post facto. A picture, as a visual "cut" in time, might be said to arrest participation. But participation is, in practice, always *in media res*, and it is in those terms that I want to delineate experience, storytelling, and context.

As such, I want to turn, now, to the social media YouTube. There, storytelling is participatory. YouTube, like cinema, presents televisual media—that is, proliferations of images. But where participating in cinema, as an audience, involves sinking into one's seat and observing, YouTube's interface promotes active participation. At the top rests the video in question. To the right, one can see and click on further videos, which are algorithm-based recommendations of "content you might like" (which sounds a lot like the machinic interpretation of genre). Finally, below each video is a comment section, wherein audiences—but more literally, anyone—can offer their commentary on the content in question. It is here that

YouTube enables participation (though not always of a good kind),[85] and, here, that it, at least, *appears* to be in media res. Audiences, or, more precisely, users, not only observe, but partake in, the content produced in videos and by "channels."

Over one billion hours of video are watched on YouTube daily. Each month the social media site sees over two billion active users.[86] YouTube stands in stark opposition to a televisual news media with dominant control over broadcast signals. There is something for everyone, since YouTube is literally a repository for the new-as-context in the form of video content. To spend time on YouTube is to participate in public forum that, like *My Struggle*, is both uniquely specific and absent uniqueness. One might call this forum an *intimate public*,[87] the force of which is that, as with *My Struggle*, each specific video has not only never been staged before, but has also always existed as a being-for-otherness "at every moment of everyone's life."

One place this participation is particularly evident is in a genre of YouTube video I earlier referred to as "lifestyle," but that is better called "itemisation." These videos catalogue things, emotions, thoughts, people, and more, in ways that are uniquely specific to each video *and* a kind of being-for-others that is always there for everyone. I use the term "itemisation" not only to mark a comparison between these videos and episodes in *My Struggle*, but also because of the hidden curatorial presence in any cataloguing effort. Each catalogue is governed or

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[85] In recent years, there has been prominent research and journalism on the role that YouTube plays in the dissemination of political influence, particularly in the forms of the alt- and far-right; see Rebecca Lewis, "Alternative Influence: Broadcasting the Reactionary Right on YouTube" (*Data & Society*, September 18, 2018, URL: https://datasociety.net/library/alternative-influence/); and Kevin Roose, "The Making of a YouTube Radical" (*The New York Times*, June 8, 2019, URL: https://www.nytimes.com/interactive/2019/06/08/technology/youtube-radical.html). It should be noted that the publication of both of these reports spurred intensive backlash from audiences sympathetic to what may be loosely described as right-wing politics. At the time of writing, the last few years have seen a barrage of cries from conservative voices that social media platforms like YouTube actually *censor* right-wing content, therefore forbidding participation. This is a particularly curious argument when one considers that it is typically made *through social media*.

[86] See https://www.youtube.com/about/press/

[87] I learned this term from Lauren Berlant, and it gestures to "Intimacy: A Special Issue" (*Critical Inquiry* 24, Winter 1998).

steered, like a cybernetic loop, by its author. Nonetheless, itemisation imparts an intimacy that is audience-generated. Like the readers of *My Struggle*, YouTube audiences rely on "texts" as repositories for their own context, in such a way that one could liken each video to a source of noise that is open to be interpreted as any signal. A popular YouTube itemisation series may have an intimate relationship with different audiences at the same time; indeed, like Knausgaard, the most popular (and profitable) of these videos develop a public-facing form of intimacy that is malleable to a wide range of publics.

Let me name a few examples of the wide variety of videos that may be found and called itemisation. They range from apartment tours, to shop tours, to "lifestyle" series. "Walking in the Rain in Boston, MA (Binaural Rain on Umbrella Sounds in Beacon Hill) 4k ASMR," an hour long ultra-high definition video recorded for 3-D stereo sound, has 816,600 views, and features exactly the contents of its title—less a walking simulator than watching someone else partaking in one.[88] "11K Camping Remote Wilderness Lakes For Trout Fishing & Firebox Stove Cooking" showcases a camping excursion—focussing on the documentation of supplies, fishing itself, and cooking on a camp stove, it has 1.4 million views. Elsewhere, a student in computer science at Harvard documents the new apartment they are living at during an internship in Montreal (Figure 4); another content creator walks the audience through their New York apartment (Figure 5).[89] In a different video, an emergency room doctor walks us through their routine during a shift at the hospital, showing us not the patients they treat, or the emergencies they are met with, but where they keep their scrubs, how they check their email, where they park their car, and how they spend their downtime during their shift (Figure 6).[90] Elsewhere, "van-lifers"—having recently

[88] All view counts listed are current to February 20th, 2020.
[89] Accessed at URL: https://www.youtube.com/watch?v=W8LDzUwUhqI&t=625s
[90] Accessed at URL: https://www.youtube.com/watch?v=C3o6bvyPIoM

quit their job or sold their home in order to live (the dream) in a van and travel continuously—walk us, in the mode of a particularly attentive real estate agent, through their van home, detailing how they pull out their bed at night, what tank system they use for clean, grey, and brown water, or what they do about using the toilet on the road (Figures 7 and 8).[91] To open YouTube on one's own device, and to browse it, for a time, is to find an endless number of videos, and of channels, as varied and as specific as these.

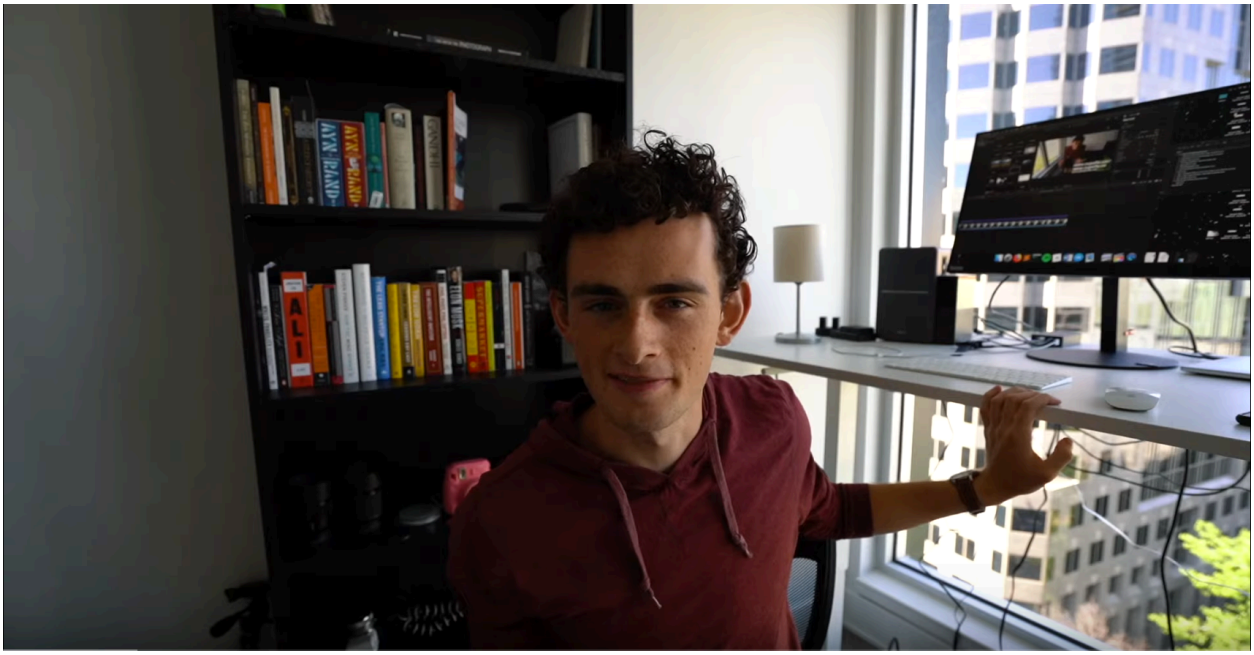

Figure 4: "My Montreal Apartment Tour!", 455,000 views as of February 20th, 2020.

[91] Accessed at URL: https://www.youtube.com/watch?v=yr4PhBG3DzU

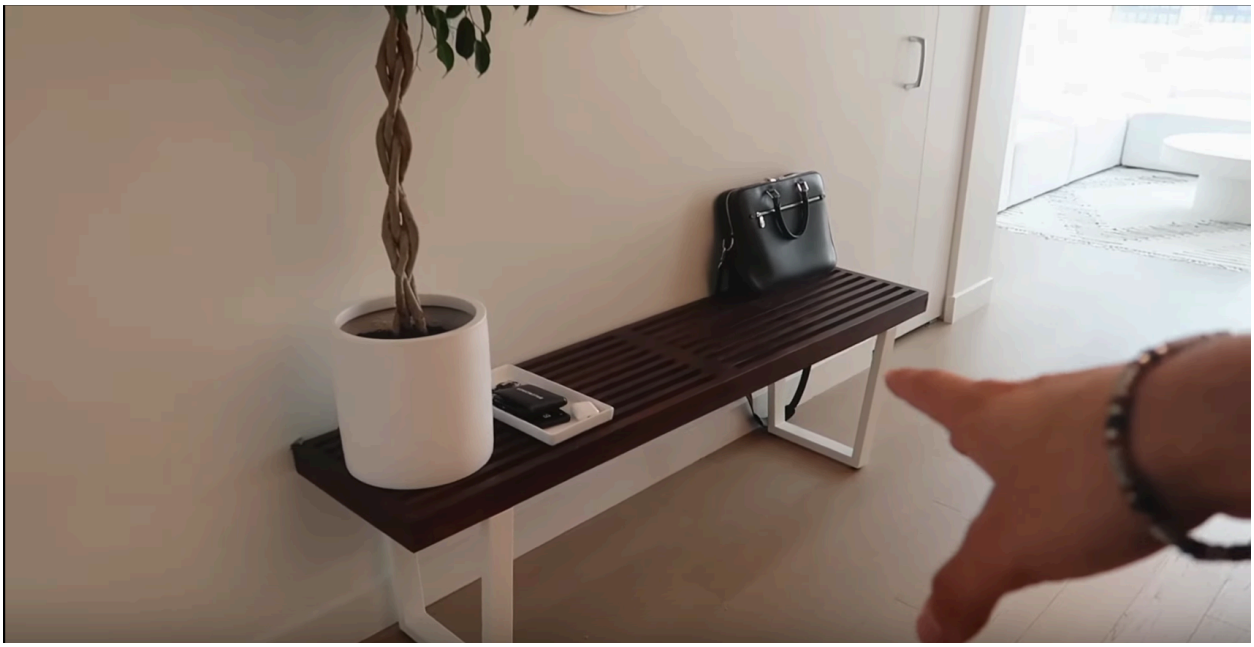

Figure 5: "NYC APARTMENT TOUR: All White, Modern & Minimalistic 1-bedroom," 209,000 views as of February 20th, 2020.

Figure 6: "96 HOUR CALL SHIFT: Day in the Life of a Doctor - Interventional Radiology," 796,000 views as of February 20th, 2020.

Figure 7: "VAN TOUR after 2 years living in our TINY HOUSE on wheels | Eamon & Bec" — talking about the decision to use a built-in fridge versus a portable cooler (4.2 million views as of February 20th, 2020.)

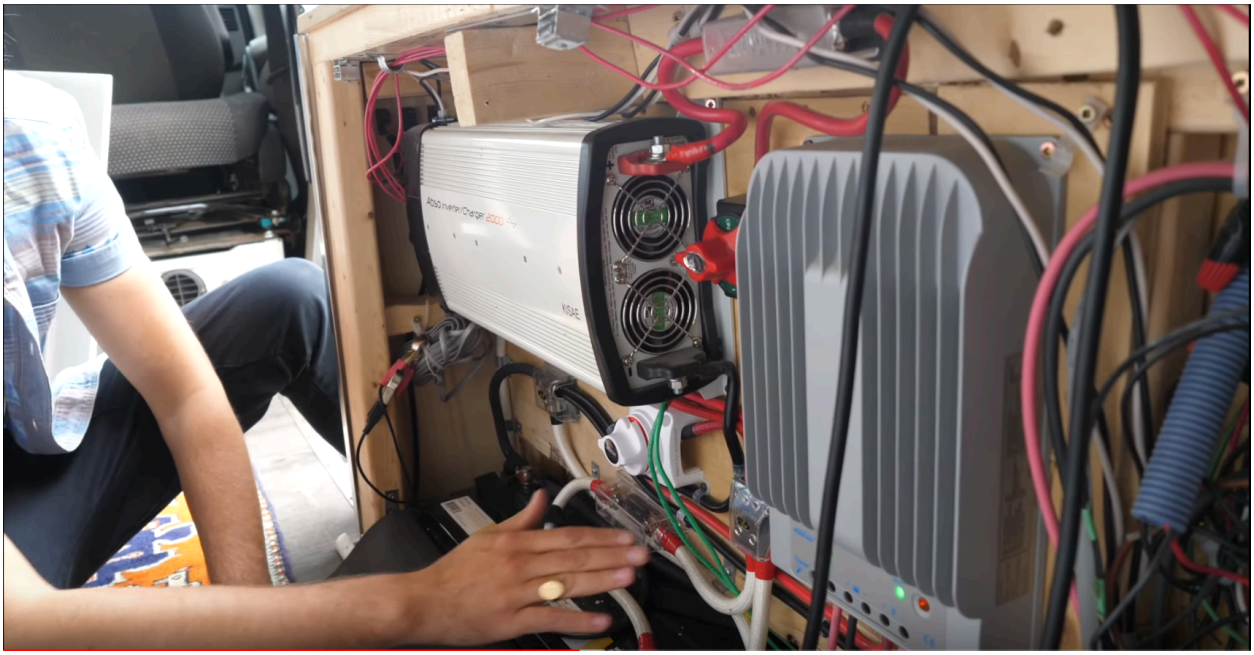

Figure 8: "VAN TOUR after 2 years living in our TINY HOUSE on wheels | Eamon & Bec" — explaining the setup of the van's energy system

All of these videos itemise lived experience in ways similar to Knausgaard: we hear about the kind of sheets someone sleeps on; the particular setup they like for the technology they use (as well as the wellness industry tips they offer for "unplugging"); the kind of routine they prefer in the mornings; their "productivity" tips; or a list of the food in their fridge. These videos are perfectly banal, uninteresting, and circular; they trend towards the redundant, the specious, and the facile. They tend to be superficial, demonstrating both how unique the author is, and their *lack of* uniqueness—their "relatability," and therefore, their authenticity. The Harvard student, whose life we envy, is just like mine! In this scenario, the performed demonstration of one's possessions, habits, and lifestyle confirm the author as "relatable" to their audience; author and audience find comfort in how they mirror each other—or rather, how a series of objects, routines (situations), and ideologies mirror each other. Given the billions of hours of video that exist on YouTube, and the depth of information on other social media, each of us may be supplied with our own mirror.

What do these itemisations perform? One source of fascination for these videos is surely the ways in which they attempt to move beyond what Mark Seltzer calls "the official world."[92] During the doctor's 96-hour call shift, the audience bypasses the standardized and conventional doctor-patient relationship. A cataloguing of scrubs in closets, car parking, food and drink consumed, email, downtime, and so on, develops into an unexpected intimacy where objects and events stand in for thoughts, emotions, and social relationships. The doctor, like Knausgaard, is relatable, in ways less dependent on the doctor (or Karl Ove) than on the audience. The doctor's cataloguing might deliberately impart intimacy or accidentally reveal it; but the intentionality of

[92] Mark Seltzer, "The Official World" (*Critical Inquiry* 37 [Summer 2011]: p. 724-753).Where the doctor-patient relationship involves a "playing [of] society" (730, Seltzer is quoting Simmel), the YouTube itemisation somehow appears to elide the game of the official world and its doubling—or, at least, it feels like it occupies a space outside the structures that condition the world.

this intimacy matters not, for the video is a repository for context, a figurative expression of noise awaiting the outside identification of a signal. Each video also appears only to enter into presence, a simulation of a kind of "unformed" data, open to the kinds of genre interpretations audiences make. As with Knausgaard, it is not correct to say that these videos are only data—their creators not only put them into form, but often present them as stories, in which audiences may participate, albeit only through the comment section.

Participation does matter. Not only are engagements (views, comments, and likes) the source of monetization for these creators, but they often manifest as "feedback" that informs future videos. That feedback is often generic—audiences participate in *crafting* the concept of their own little network (the channel and its audiences). They do so, not by picturing the comments and the video itself as nodes, amongst which are relations, but by *imagining* the kinds of stories that may coalesce on each channel to form the exchange of experiences. So, on "van-life" YouTube, commenters proffer recommendations for future travels, solutions to van-problems, or expressions of desire like "more screen time with your dog please!" One might call this participation a scramble for narrative representation, for control over each channel's story.

The specificities of participation, here, deserve greater exposition. For now, and to repeat a point made earlier, let me emphasize that those videos that perform best (garner the most views) do so, in particular, by creating intimacies that are both "uniquely specific" to their authors and "public" in ways that appear to be anodyne for the largest number of people. This is to say that what is crafted garners the most success if that which it imagines is both accessible to as many people as possible, as, at the same time, it appears to be as personal as possible. "**It's surprisingly very calming to watch you make tea..**" writes a commenter on "My Montreal apartment tour!", to the tune of 1,500 likes.

Audience-imposed context unsurprisingly takes on a multitude of forms. Some commentary has the amicable tone of sharing in a joke.[93] The most popular comments on the doctor's video (4,100 and 5,200 likes) are: "Doctors: we recommend 8-9 hours of sleep daily. Also doctors: **sleep 2 hours a week**"; and, "I'm about to start my 48hr Call of Duty shift." Other forms of commentary identify a fantasy of the good life[94] held in common: the top comment on the video of camping, trout fishing, and cooking, is "This man takes care of his family, and they take care of him. It's a Beautiful thing" (this comment has also been "liked" and replied to by the video's author). In the most watched video of them all, "VAN TOUR," the top comment (with 20,000 likes) asks other commenters "Who got this recommended after watching a van vid of a cute girl and her snake," directly addressing not only the intimate public in question, but also the role of recommendation algorithms in developing that public. Although I earlier made reference to the migration of a theory of communication into literary study, in this case, communication is literal: this uniquely specific community of being-for-others, which perhaps could not otherwise coalesce amongst billions of videos, is dependent on a recommendation algorithm that literally *recommends* or selects a signal through the noise.

It is perhaps straightforward to see the relatability of these authored, cataloguing videos—but what about the ASMR walking video, whose author is absent from view? Here too, comments are inflected by expressions of humour or fantasies of the good life held in common. In the former instance, a popular commenter, noting the video has been filmed in Boston, makes a generic joke about Boston accents: "dude, even the rain has an accent there." In the latter, a

[93] Here, intimacy obtains in comedy's promise of pleasure and its failure to induce that goal; see Lauren Berlant and Sianne Ngai, "Comedy Has Issues" (*Critical Inquiry* 43 [Winter 2017]: p. 233-249). In a video like the doctor's, comedy that plays well to the comments section is what Berlant would call "humourlessness," the shared conviction that the community watching the video is sovereign: "*their* version of a situation [will] rule the relational dynamic"; see Berlant, "Humorlessness (Three Monologues and a Hairpiece)" (*Critical Inquiry* 43 [Winter 2017]: p. 308).
[94] See Berlant, *Cruel Optimism*.

commenter reveals their own intimacies, as the ability to walk becomes a fantasy of the good life: "People don't know how lucky they are to walk pain free. I miss it."

In each of these videos, though they are different to the point of incomparability, resides an intimate public. In one sense, this phenomenon can be explained away as anodyne subcultures that starkly oppose the radical subcultural style first described by Dick Hebdige.[95] What these examples also highlight is how the comment sections of each video model a kind of cybernetic loop: a video is posted, it receives views, likes, and comments, and if the author is perceptive, audience reception is addressed in the videos that follow, whether implicitly or explicitly. Unlike Stuart Hall's "encoding/decoding" formula for mass media—where a message is encoded with one meaning that may be decoded in a multitude of ways by receivers—the "coding" of these videos follows something akin to a dialectical relationship, where messages are encoded and decoded incrementally (or intertextually), by author and viewer alike, both in real and televisual time.[96] Communication *is* something like a cybernetic loop; though Hall's theory is not wrong here, it is unable to account for modalities between message and noise that occur. This is, in part, because, in the figurative use of a theory of communication, YouTube itemisations appear to impart intimate *data* on their subjects: intimacy seems to enter into presence. But what is actually occurring is that data (which is already ontologically present) is being steered *into form*. Information is separated from noise in a feedback loop of adjustments between an audience's desired intimacy and an author's sense of their being-for-others. This loop, most intriguingly, gets called "community."

[95] Dick Hebdige, *Subculture: The Meaning of Style* (New York: Routledge, 1979).
[96] Stuart Hall, "Encoding/Decoding," in *Media and Cultural Studies: KeyWorks*, edited by Meenakshi Gigi Durham and Douglas M. Kellner, (Malden: Blackwell Publishing [2006]: p. 163-172).

Of course, public-facing forms of intimacy are not always well received. Videos that, by contrast, avoid intimacy, or appear to manufacture it, fare much less well, and are quickly relegated to irrelevance. The "data" in poorly received videos may be steered into a form that causes confusion, discomfort, or irritation; or, what is received well in one camp is not in another. Any number of circumstances may imperil positive reception. What is evident, however, is how often reception is contingent on the relations between information, control, and observation. Though each video's author is assumed to be the purveyor of information, it is, more often than not, the audiences that are assumed, as observers, to be in control. One reason for this, as I briefly noted, is the relation between observation, or engagement, and a video's monetization. Here one might turn to one of the endless channels dedicated to "living off the grid," not in the genre of van-life, but, instead, as "homesteading." One such channel, "Pure Living for Life," counting 481,000 subscribers, focusses on a couple building a homestead in the American Pacific Northwest. In a video entitled "ARE WE DONE WITH YOUTUBE?" one of the channel creators lectures his audience on the trials and travails of making a living off of YouTube.[97] Sitting on a sawmill trailer, which is used in various videos to convert local trees into timber for the house, the creator speaks directly into the camera. The conversation starts innocently enough, as he implores his audience to consider the relationship between advertising and video engagement, suggesting that views without active engagement (e.g. likes, comments) cannot be monetized properly, but takes a turn for the worse when he demands that his audience spend their free time watching the ads associated with the video, before finally calling anybody who doesn't a "freeloader." (Naturally, he later proudly states that he and his partner are doing "wonderfully" financially.)

[97] Accessed at URL: https://www.youtube.com/watch?v=HMRa9kQFzcU.

Thus, a contentious video about personal finance ends up actually being, quite literally, about audience observation as a form of control. And, indeed, in the comments that follow, commenters fixate, less on the insults tarried against them, than on the failure of this couple to put a "siding" on the house around which their channel is centred: "I came here to check. . . yep. . . still haven't put siding on the house." In other words, an explanation for the power of the audience, as a participatory "agent" that holds control, emerges through the siding of a house as it becomes a generic device in the homestead genre. The assumption that the information the video supplies—about how to build a homestead—is genre*less* shapes expectations of and for information and experience, which, in this case, manifest in a confrontational fixation over the siding of a house and the monetization of a genre. The question "are we done with YouTube?" responds to the apparent provisioning of information on homesteading by signalling, instead, (monetary) community, audience participation, and the experiences of everyone involved. As one might, then, expect, they were not, dear reader, done with YouTube.

In spite of ample evidence of the generic qualities of these videos, much like for *My Struggle*, audiences treat YouTube videos as information. Paradoxically, they seem to assume that these videos are both pictured information, about a video's given content, and which may be passively observed, and that they are stories, in which audiences actively participate. So, the audience both observes the daily life of a doctor, and experiences it in a way that at least *feels* participatory. Because that doctor's day, presented in a documentarian style, is only one day, it will continue—as will the channel with those videos. The expectation of further videos, that is, further videos of "days in the life of…", renders these videos as stories, in which the audience has the opportunity to participate (not by shaping experience, per se, but by shaping how one experience will be observed). Yet, at the same time, because these videos are taken to be data-

cum-information, they are assumed to be genreless. What, then, is occurring? One could perhaps say, in the scramble for narrative representation that inheres, in the dance for control that dictates the terms of a video and of a channel, that audiences are *actively shaping genre*, and, moreover, that they are doing so precisely because they believe that the content they are engaging with has none.

In both Knausgaard's *My Struggle*, and YouTube's itemisations, two things occur. First, storytelling is treated as information, or, better yet, as mere data. In different language, storytelling is treated as noise, and audiences are tasked with searching for a signal. Second, that assumed, but specious, formlessness begets a scramble for narrative representation that relies on the justification that a lack of form requires the participatory imposition of genre. This imposition might, elsewhere, be termed "cultural reception," and it operates, not only as attempts to picture the totality that is a text and its cultural reception, but also as an effort to imagine, and craft, "the items that come by" into experiences and their exchange. This, I wager, is a cultural logic of information at work. What is at stake is not the supposed certainty that information provides, which is to say, control over the observable world as a form of knowledge. What is at stake, instead, is the interpretation of that information, a contextual act that, through the exchange of knowledge and experience, is actually just storytelling. What is at stake, finally, in the simultaneous assumption of an encounter with information and the recognition of its inevitable indeterminacy, is representation itself. Who controls representation? Who has power?

It is through this lens, according to the preceding explanation of what might appear to be fundamentally banal cultural objects, that I hope to demonstrate just how "information" translates to storytelling, and exactly what is at stake. The re-evaluation of Fox News' denial of a

quid pro quo, then, might be read, not simply as "bad" information, or lying, but as the confluence of cultural assumptions *about* information and its experiential reception. Here, "correct" knowledge *qua* experience—"Make America Great Again"—supplants correct information as the source of a fundamentally "good action," at least in the eyes of those who fit into Fox News' cultural nexus. What is at stake, however, as was the case during Benjamin's time, is so much more than the cultural reception of a magnum opus, whether in a novel or on YouTube. Hatred and fear of an Other has once again crawled out of the shadows. This emergence is coextensive with an era dominated by crisis, and, moreover, it relies on crisis to feed it.

Conclusion: Representing the Unrepresentable

In a world dominated by information, how is representation defined, and what kinds of boundaries does it consequently set up for establishing what can be known? Over the course of this project, I have endeavoured to make two arguments. First, in contemporary Western cultures, representation is often defined according to its relationship to information, where information signifies either a true representation or a substitution for representation itself. In so doing, and second, information builds walls of verisimilitude around itself, suggesting that those who doubt it may be iconoclasts, conservatives unwilling to engage with a world that is passing them by. As such, I have tried to sketch the contours of a cultural logic of information, through which the boundaries of what can be known from information are delineated. Information is taken to proffer certainty and control, a knowledge that is less pedagogical than it is authoritative. By contrast, storytelling is often taken to be an inchoate form of both representation and knowledge, that, in the end, should always be subservient to information. As I have tried to argue, however, information is unable to offer either absolute certainty or control, and this inability to enclose knowledge tends to lead to scrambles for narrative representation, or, storytelling. Indeed, subjects often (if not usually) meet information with their own experiences, imagining what it signifies, and constructing their own representations, in conversation with information, and others around them.

The purpose of these arguments has been, in a way, to tackle the question "is a control society representable?" I have ultimately wagered that the answer is, simply, *it depends*. On its own terms, that is, the modulations of information and attempts to picture them, representation tends to fail, for as a result of a fixation on verisimilitude, control, in its "true" representation,

always seems to escape one's grasp. Elsewhere, where subjects meet control societies with their own experiences—and especially where those experiences are not individual, but *structures of feeling, genres, and cultural forms*—representation often functions in ways that reveal the machinations of control, if not, perhaps more optimistically, occasionally even attempting to partake in control's modulations, like a cybernetic helmsman.

In making an argument *for* experience and *for* storytelling, I do not want to be misunderstood as attempting to reclaim recent liberal arguments, in favour of the representation of identity categories, that obfuscate the more crucial task of assessing how power and control meet class, race, gender, sexuality, ability, and so on. It is not that storytelling proffers representation, but that it is able to engage with whole worlds, at levels that jump between the "cognitive mapping" of totalities like capitalism, and the unique experiences of life in a control society. For, storytelling, if it is aware of its own relations to the world around it, is perhaps uniquely able to grapple with those structures of feeling that Williams describes as "meaning and values as they are actively lived and felt, and the relations between these and formal or systematic beliefs [that] are in practice variable (including historically variable), over a range from formal assent with private dissent to the more nuanced interaction between selected and interpreted beliefs and acted and justified experiences."[98]

But storytelling, even if it does offer the tools for comprehension, both to build a better world, and to stave off one that is even worse, requires care. It should be treated as a tool that performs labour, and as such, its interrogation and use require reflexive questions like: what are the consequences of this labour? and to what end? Storytelling is fundamentally political. As I have attempted to demonstrate, those politics need not be in service of group experiences that are

[98] Williams, *Marxism and Literature*, p. 132.

welcome to all. In Benjamin's era, a story of "blood and soil," of an Aryan *Volk*, had devastating consequences, with which we are all familiar. Today, storytelling—especially as it is a paragon of more atavistic forms of group traditions and wisdom—is used powerfully to signal vainglorious bigotry ("Make America Great Again") at the same time as it is denied, and to justify the continued use of planetary infrastructures in the service of resource extraction, rather than the care of living populations, human and otherwise.

Much of the *power* of storytelling is brought into relief in times of crisis. Unfortunately, in the service of fulfilling the degree requirements of this project, I had to eliminate two final chapters on information, storytelling, and crisis. In them, I argued that crisis challenges a cultural logic of information, whether by forcing the question of what a "true" representation of crisis might be—can information adequately capture the phenomenon in question?—or by proving that information is a poor substitute for the experience of crisis itself. I suggested that, in spite of this challenge, in a cultural logic of information, the prescription for crisis is always taken to be more information. Much of this argument hinges on the concept of "risk," which is both a useful term for the interpretation of empirical observation of the world, and a story about the future. Information systems allow us to "observe" risk, at the same time as that act of observation, especially in the terms of scientific modelling and prediction, actually *creates* risk. The effect of information is risk, while the effect of risk is just more information. I suggest that the consequence of this circularity may be another cultural logic, *of crisis*. My method for assessing this logic is an experiential category that I call *meta-crisis*, which is the experience of crisis from afar and through information technology, felt not as an imminent and concrete event, but instead as a second-hand, and at times virtual, murky feeling of something happening—a discombobulating situation, as opposed to a catastrophic moment.

Narrowing the frame of representation and information to moments of crisis allows scholarship to assess what is at stake, in part because, in those crises that are always studied in the past tense, one may see the differences between what is said to matter, and what actually emerges after the fact. I rely, in particular, on the assumption that stories always survive, whether materially, in the apparatuses that subsist or are reconstructed, or ideally, in the addition of memory to sensory experience—what Benjamin would call a full experience (*Erfahrung*). Indeed, I attempt to demonstrate how, in crisis, a dance between storytelling and information, and between control and disaster, takes place on a floor that may be thought in terms of a tension between memory (the past) and risk (the future). Most often, subjects hold onto a cultural logic of information in attempts to fix representation in time, as a source of control over the "correct" memories of the past, and the proper mitigation of future risks. I assess two cultural objects. First, I argue that the Amazon Ring doorbell camera system attempts to mitigate future risk by telling stories about neighbourhood crime and the necessities of revanchist urbanism. It does so especially by characterizing those stories in the terms of surveillance, which is thought to be representative information on—indeed, information that substitutes for the actions of—those persons who present a threat to homeowners. Second, I argue that contemporary conspiracy theories tell stories about ongoing events, both as ways to uncover what are taken to be lost but correct representations of crises, and in order to protect subjects from future disasters. Curiously, conspiracy theorists often seem to be adept at *imagining* information, unwittingly acknowledging its limitations, and debating the terms of representation. Conspiracy theorists, it might be said, occupy a logical endpoint of those Enlightenment forms of critique reliant on scepticism, where scepticism, as emancipating action, comes to focus exclusively on crisis in terms of its genres of representation, rather than on its causes and consequences.

As such, one could say that crisis brings information into relief, and, more specifically, it holds the experience of information up to the light. I have suggested that that experience may be better understood, and used to better ends, if it is grappled with in the terms of *narrative* representation, rather than those attempts to picture it. I want to finish with a final example of how that difference can manifest in the case of one instance of what is sometimes called the unrepresentable—genocide. The case of the unrepresentable, as an event that is unthinkable in its evil, is instructive for attempts to engage with totalities (like control societies) that bely representation. The inability of pictures to represent either an information society or an unthinkable evil, not for lack of trying, is nevertheless a failure, at least in part, because it engages with representation in the specious terms of "true" or "false," forgetting how representation may be embedded in systems of experiencing, and therefore pushing representation's political questions to the side.

The Act of Killing was a 2012 documentary about mass killings in Indonesia in 1965-66, specifically targeting communists, ethnic minorities, and other leftists. In particular, it followed the former leader of a death squad, Anwar Congo, who, with the help of that death squad, "slaughtered 10,500 alleged 'communists' in a single clearing by a river in North Sumatra."[99] The director, Joshua Oppenheimer, contextualizes the 2004 project in his "Director's Statement" as related to the infamous release of photographs from Abu Ghraib prison, and the torture and abuse that was ongoing therein. It is thus safe to surmise that representation of the unrepresentable was on Oppenheimer's mind, in a way that surfaced in unconventional ways in *The Act of Killing*. What is perhaps most interesting about Oppenheimer's reference to Abu Ghraib, and its influence on his filmmaking, is how he portrays the relevance of representation

[99] Joshua Oppenheimer, "Director's Statement," *The Act of Killing* (n.d., http://theactofkilling.com/statements/).

not as picturing, but in terms of the "*forensic* evidence of the *imagination* involved in persecution."[100]

And so Oppenheimer set about attempting to represent a series of mass killings that had never been reckoned with, let alone recognized, in Indonesia and abroad. "That such narratives," he states, "would be believed (despite all evidence to the contrary) suggests a failure of our collective imagination, while simultaneously revealing the power of storytelling in shaping how we see." And it was in this realization that Oppenheimer began to depart from the more well-trodden path of representing the unrepresentable, one often typified by a desire to *picture information* according to the belief that the supposedly unvarnished (and even natural) image of horror, without any of the frills of art, simply cannot be ignored. Instead, Oppenheimer asked Anwar and the other members of his squad to tell their own stories about their experiences of these killings, that is, to give the audience a portrayal of their experiences, which proved to be a fruitful project, for the men were not shy about boasting about their roles. But Oppenheimer went one step further. He realised that "if the perpetrators in North Sumatra were given the means to dramatize their memories of genocide in whatever ways they wished, they would probably seek to glorify it further, to transform it into a 'beautiful family movie' (as Anwar puts it) whose kaleidoscopic use of genres would reflect their multiple, conflicting emotions about their 'glorious past.'"[101]

This is the story, or, rather, the *meta*-story of the documentary. Anwar acted out his role in the killings, and these scenes were then replayed for him, after which he discussed, on camera, how he felt about the whole process. *The Act of Killing* ends in "unsatisfactory" if rather typical fashion for a documentary, as Anwar returns to one of the most prominent killing locations,

[100] Ibid.
[101] Ibid.

where he repeatedly retches while reckoning with the transplanting of his previously placeless narrative onto a terrifying location. What is so interesting, however, about this documentary, is how it fails to engage with pictures of the unrepresentable, instead turning towards the unthinkable as a narrative device. While Oppenheimer does not shy away from "informing" the viewer, per se, the documentary is actually about the relationship between representation and its object, one that places participation at centre stage. In stepping away from an attempt to picture atrocities, and towards an attempt to imagine them, Oppenheimer begins to sketch the contours for representing the unrepresentable as a political task. By asking Anwar to engage with his genocidal acts as stories—which, recall, are instruments for making sense of experience—Oppenheimer refuses the distancing act inherent in the visualization of an object, inevitably reminding Anwar that he killed *subjects* with their own experiences, a choice that forces Anwar and the audience to consider the act of representation itself.

Although mass killings and a network society are, as events, absolutely opposed in terms of why they might be unrepresentable, *The Act of Killing* provides an important lesson for reckoning with the relationship between information and representation. Recall that Benjamin argued that "The value of information does not survive the moment in which it was new." It is now, I hope, possible to see just how wrong he was. The value of information does not survive the immediate moment because valuation, especially and ideally as a political act, only appears later, retrospectively, as information sediments. This is what it means to suggest that information has a narrative quality: information only matters in terms of its relationship with story.

This does not mean that the representation of information is impossible in the context of immediacy. It only means that immediacy makes it more difficult, and that different representations have different temporal relationships to information. The image, if it is taken to

be a visualization or a picture, a "cut" in time, might appear to have the least value in the present, which is ironic, given that it, for a long time now, has generally been taken to be *the* medium for the representation of the present. The story, by contrast (especially the story that doesn't make a cut in time, like a novel does, but is ongoing and participatory), is far better prepared to engage politically with the question and problem of unrepresentability.

Thus we might, in conclusion, return to the question, is a control society representable? That question remains open, but I am willing to wager that storytelling might offer an answer, one that is not only political, but better prepared to tackle the vicissitudes of participation in representation. Storytelling might simply offer the ability to participate, that is, to interject, and to envelope oneself in those gaseous Deleuzian modulations of control, and to wave one's hands about in an attempt to help them dissipate.

Is a control society representable? There has been much ado about the unrepresentability of a control society as it is *the* function of algorithms, and I think this is in part because, while we can certainly picture algorithms, given that they are a language after all, we have rather a lot of difficulty *imagining* them. Perhaps this is because it has been typical to want to visualize them "as they are," rather than to narrativize them as elements of an experience in which one actively participates. Thus Galloway states: "Today's systemics have no contrary. Algorithms and other logical structures are uniquely, and perhaps not surprisingly, monolithic in their historical development."[102] He is right on the latter point, but wrong on the former. Today's systemics *do* have a contrary. Stories.

[102] Galloway, "Are Some Things Unrepresentable?" p. 100.

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