PRE | DIGITAL LIMINALITIES: A HERMENEUTICS OF THE INTERMEDIAL AND MATERIALITY IN THE PRINT INTERMEDIAL NOVEL

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Abstract

How can print novels renew a digitally literate reader's awareness of media materiality and medial differences? This dissertation develops a hermeneutics capable of analyzing media not only for their unique specificities or their convergence into a represented "sameness," but also for the liminal site of their fusions, exchanges, and slippages of representation—the intermedial, or, the *in between* of media. Digital media amplify the mediating practices of exact recording devices such as the camera, representing other media through a technique that blurs their differences and inciting an illusion of a represented medium's presence or "immediacy." The pretense that predigital (and thus "old") media are available for such convergence occurs through the weakened instantiation of media's contexts and conditions of materiality. A closer examination of the way media engage with each other from the perspective of a so-called "old" medium—the print novel—provides the grounds for an approach to media encounters that avoids sameness and encourages material awareness.

This dissertation focuses on the contemporary print intermedial novel, a form of writing where references to three stages of technological inscription abound: the "textual symbolic" stage in the written word; the "orthographic" in exact recording devices; and the "post-orthographic" in digital media. The intermedial novels that I study use print's material medium to evoke these inscription functions, demonstrating the collaboration of older and newer media representational forms in today's cultural imagination and practice. First, I examine how orthographic immediacy is used to elicit absent objects as physically present. Next, I explore how post-orthographic immediacy is used to represent symbolic images as visualized and virtual objects. Finally, I analyze how post-orthographic inscription is used to complicate the relationship between material objects and representations of reality. Print in intermedial novels can restore a reader's awareness of media materiality by creating what I call a "dynamic media juxtaposition": a dissonance between the material medium of print and the visual and digital media that it represents. These novels thus demonstrate the need for an intermedial hermeneutics that is capable of analyzing this dissonance *laterally* (a comparative reading of media) and *dynamically* (a negotiation of their encounters).

將這份論文獻給我的父母，翁麗君 和 范廣泰。

給家人的愛，永遠不會遲。

I dedicate my dissertation to my parents, Weng Li Jun and Fan Kwong Tai.

You're never too old to love your family.

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Introduction: Why the Intermedial?

This dissertation began as an inquiry into the relationship between digital media and the print novel in order to explore the status and stakes of the contemporary novel in a so-called digital era. I had chosen a sample of print novels that were clearly influenced by digital media in their use of digital aesthetics and formal features, and that had also been explored by other prominent scholars in terms of this influence. I sought to examine how print novels could engage in a process of remediation—the representation of one medium by another—in a way that did not reinforce the idea of digital media's domination over print literature.

What I found in examining this group of novels, however, is that they are clearly speaking to more than just print and the digital. Jonathan Safran Foer's *Extremely Loud and Incredibly Close* (2003), Steven Hall's *The Raw Shark Texts* (2007), and Mark Z. Danielewski's *House of Leaves* (2001) all incorporate in their form, style, and themes many forms of media, including different stages of computer and Internet development, film, photography, typewriters, telephones, and visual images. I discovered that the scholarly tendency to explore these texts in relation to a tension between the print and the digital, as if these two media systems are in an exclusive polarized relationship, greatly hinders inquiry into the significance of the print representation of a range of non-print media.

In identifying these novels' engagement with multiple media, it became necessary to reexamine the notion of "remediation" itself as a method of framing media relationships and representation. Was the notion comprehensive enough to account for the print novel's representation of both predigital and digital media? As a theoretical term, remediation was introduced in 1999 by Jay David Bolter and Richard Grusin to describe how a visual medium can adopt and refashion the characteristics of another, a process that they argue can be identified

"throughout the last several hundred years of Western visual representation" (11). Remediation functions through a double logic, occurring through both immediacy, a visual representation that is aims to be so realistic that it offers the illusion that there is no mediation occurring, and hypermediacy, the use of multiple media and the increase of this multiplicity that may reveal the act of mediation. Bolter and Grusin argue that the desire for and effectiveness of immediacy has surmounted throughout the history of Western visual representation, "lead[ing] digital media to borrow avidly from each other as well as from their analog predecessors" (9).

The theory of remediation offers a way of understanding media as engaged with one another, capturing a culture of media representation that Joseph Tabbi and Michael Wutz (1997) describe as a "media ecology" and within which Bolter and Grusin "conceiv[e] of each medium or constellation of media as it responds to, competes with, and reforms other media" (55). While Bolter and Grusin argue that their approach to remediation describes "a genealogy of affiliations, not a linear history, and in this genealogy, older media can also remediate newer ones," they also state that "earlier technologies are struggling to maintain their legitimacy by mediating newer ones" (55; 61). "Remediation" comes from the Latin word *remederi,* "to heal, to restore to health," an understanding through which they frame the terms as a means "to express the way in which one medium is seen by our culture as reforming or improving upon another" (59). In these specific terms, remediation relies upon the effect of immediacy, which has a double function: it can evoke the realistic presence of other media, and can also represent, "reform," and "improve upon" a medium's specific affordances and limitations of representation—what this dissertation will refer to as their *inscriptive functions and practices.*[1]

Thus, while Bolter and Grusin propose that in a seemingly networked media ecology,

[1] The terms "affordances" and "limitations" come from Marie-Laure Ryan's (2003) description of different media's unique representational methods (n.p.).

media are capable of the practice of remediation and are also "up for grabs" for remediation, the act of remediation itself is framed as perpetually forward-moving—progressing towards ever-increasing immediacy. We can examine how, by this logic of immediacy, digital media may be considered both more culturally relevant and legitimate than predigital media, and how they are thus considered to be "new."

In digital remediation, predigital media are inscribed into the same data language through the computer process of transcoding, such that they can be represented together on the digital screen interface. As such, digital remediation is new—and indeed new media are considered "new"—because of "the particular ways in which they refashion older media" and the ways in which they engage with an ecology of media (Bolter and Grusin 15). By incorporating both older and newer media onto the same representational platform of the digital interface, digital media more easily enable the practice that Bolter and Grusin describe as media "borrowing," but that can also be framed as media "blending" (see Punday 2012), "connectivity" (see Liu 2008), and "convergence" (see Jenkins 2003).

The effect of digital remediation to transcode and thus theoretically "translate" media into speaking the same language results in the equalization of represented media on the screen interface. This equalization occurs as a flattening of the differences and nuances of each represented medium, a process that Tabbi and Wutz compare with Jean Baudrillard's "'ecstasy of communication,' in which 'all secret spaces and scenes are abolished in a single dimension of information' (131), and reproductive technologies threaten to erase all alterity and metaphorical distance in favor of mass-mediated sameness" (qtd. in Tabbi and Wutz 17). The notion of "medial sameness" accounts for the popular understanding of digital media as an all-encompassing representational format: for example, Peter Lunenfeld (1999) describes digital

media as "the universal solvent into which all difference of media dissolves into a pulsing stream of bits and bytes" ("Unfinished Business" 7). In these terms, medial sameness allows one or more media to be digitally represented without drawing attention to the specificities and differences among media.

As a theoretical term and concept, remediation may lead to ways of thinking of newer media as swallowing up older media. For these reasons, the theory of remediation cannot be straightforwardly applied to my analysis of the contemporary print novel's representation of both predigital and digital media. Where I intend to speak to the larger significance of print novels' representation of an assortment of media, remediation risks suggesting that a medium's historical position shapes its representational abilities and, in turn, its cultural legitimacy. However, what I do draw from the theory of remediation is the potential for revealing *medial difference*, which can be uncovered by further comparing its double logic of immediacy and hypermediacy. As hypermediacy uses multiple media at once in the practice of remediation, it also potentially promotes the user's awareness of mediation through the media heterogeneity thus engendered. For instance, Bolter and Grusin argue that modernist experiments in art and literature, particularly through artistic techniques such as montage, exercised hypermediacy as they "created heterogeneous spaces and made viewers conscious of the act of representation" and thus allowed the user to become "hyperconscious" of the medium (38-9). By contrasting approaches to hypermediacy with the function of immediacy to make a user unconscious that a mediation is occurring, Bolter and Grusin point to the potential for the user's awareness of medial difference through multiplicity and heterogeneity.

Immediacy | Materiality

This dissertation explores how medial difference can be retained and evoked through the user's awareness of the represented medium's contexts and conditions of materiality—precisely the contexts and conditions that can be made invisible through the effect of immediacy. The main chapters trace the development of immediacy over various stages of technological development in accordance with the simultaneous weakening of material instantiation.

We may frame an initial discussion of this weakening of material instantiation by examining the relationship between content and materiality in the vein of immediacy, through which content is made increasingly abstract in the stage at which a user receives it. The abstraction of content has been analyzed through various scholarly ruminations, but an apt place to start is with Walter Benjamin's (1936) discussion of the destruction of an artwork's "aura" in the age of mechanical reproduction. He argues that the industrial practice of mechanical reproduction leads to a change in how we understand the cultural artefact and text. The auratic experience of an individual artwork that is situated to a specific space and moment in time (a historical singularity that is tied to the artwork's originality and authenticity) is destroyed through its exact and mass reproduction (1169). Part of the historical singularity that Benjamin describes of the work of art can be understood in terms of remediation, as *the content* of a former object is reproduced in another time and space, and in this process, may be disassociated from its original material medium.

In "Transcendental Data: Toward a Cultural History and Aesthetics of the New Encoded Discourse" (2004), Alan Liu argues that in the most recent stages of inscriptive technologies, there occurs "the separation of content from material instantiation or formal representation" (58). Following the advent of mechanical reproduction through to digital reproduction, Liu argues that

the process of computer transcoding—which, in the case of transcoding predigital media into digital representation can be described as a digital remediation—also presents content on the interface in a way that is disassociated from the material contexts of media in order "to allow for internet transmission, that is, variable methods of standardization … [to] suddenly be imagined" (80). With this analysis, Liu supplements discussions of interface- or reception-level representation with a much-needed contextualization of the processes of the computer behind the screen. He argues that content is separated from form and materiality through computer content management, whereby the production and transmission of content is not presented during the reception of content on screen. The screen, in this sense, contains the time and space of virtual embodiment and of represented medial sameness.

In particular, immediacy involves making invisible the techniques of digital production and transmission that themselves erase the materiality of different media so to offer more powerfully the illusion that a mediation is not occurring. In other words, the act of inscribing one medium as and for another—an act that writes a medium as "immediate" and that evokes its respective inscriptive practices—is simultaneously the act of erasing the differences between media. Materiality is thus a crucial element for enabling the effect of immediacy because it must first be erased. We see this in a principle that Lev Manovich (2000) describes as the "aesthetic of seamlessness," which supplements the medial sameness of the interface. Bolter and Grusin describe this aesthetic through computer designers' ultimate desire for "an 'interfaceless' interface, in which there will be no recognizable electronic tools—no buttons, windows, scroll bars, or even icons as such" (23). The prowess of immediacy through digital transcoding and remediation, and the simultaneous erasure of medial difference and materiality, thus help to shape the rhetoric and larger discourse of digital technologies as "new" and of predigital media

as comparatively "old."

The Intermedial as a Space of Encounter and Difference

In a contemporary culture that practices media borrowing, blending, connectivity, and convergence, among other forms of media representation, what distinguishes the print novels that I examine is that they resist equalizing the media they represent. Whereas digital representations of media involve the effects of immediacy and medial sameness, the distinct materiality of the print medium offers it a critical distance through which to represent other media. The physical presence of a book in the reader's hands enables a haptic connection with the text and its representations of media, thereby creating a dissonance between the immediacy of the medium being represented and the material domain of print in which the representation is contained.

For instance, Safran Foer's *Extremely Loud and Incredibly Close* features a reproduced black-and-white photograph of a doorknob. This photo incites the reader to grapple with a dissonance between the materiality of the print novel that is held in the hand and the photographic medium being represented, as each medium brings with it a separate set of assumptions about its ability to convey immediacy. Through this dissonance, the photograph is allowed a double function, read somewhere-in-between—and therefore simultaneously as—an immediacy that presumes on one hand a medial sameness ("this is a photograph of a doorknob") and on the other a medial difference ("this is a representation of a photograph that is contained in the pages of a fiction novel").[2]

[2] We might compare the reader's negotiation to the optical illusion of the rabbit-duck: made famous by Ludwig Wittgenstein, it is a cultural image that causes its viewer to go back and forth in seeing the image as a duck, then a rabbit, then a duck, and so forth; to see the duck, a viewer must no longer see the rabbit, and vice versa. Only one can grab the viewer's attention at a time,

This dissertation examines these print representations of media in the framework of intermediality, an interarts approach to media that was formed in 1965 (and revisited in 1984) by Dick Higgins to describe "works which fall conceptually between media that are already known" (52). Associating intermediality with the avant-garde (albeit not practiced exclusively in the avant-garde), Higgins describes the intermedial as "an uncharted land that lies between [his specific examples of] collage, music and theater. It is not governed by rules; each work determines its own medium and form according to its needs" (50).

Building upon Higgins' locating of the intermedial in the conceptual space between media, this dissertation re-frames media relations and representation not as the encapsulation of one medium by another—that is, not in terms of the act of remediation—but rather, in spatial and dynamic terms as an *encounter* between media. In order to propose this model of intermediality as an encounter, I complicate Higgins' argument that in comparison to the idea of mixed media, intermediality sees that two media are "fused conceptually" (52). As conceiving of the space between media as the space of fusion risks flattening their significant alterities, the space of intermedial encounter must not be analyzed in terms of blurred lines and consequent unity; instead, it must be fleshed out for how it can highlight medial differences within the intermedial.

In order to understand the salience of difference in intermedial practices and in reading intermediality as such, I turn to Irina O. Rajewsky's work on literary intermediality, which largely inspires this dissertation's analysis of print novels. In her article "Intermediality, Intertextuality, and Remediation: A Literary Perspective on Intermediality" (2005), she delineates three types of intermediality for how they can constitute different medial relationships and for how they can be understood relative to literary intermediality (51-3). These types include

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but because our attention oscillates, we know at a deeper level than perception that more is going on. It is from this tension that I build an observation of dissonance.

intermediality as medial transposition, intermediality through media combination, and intermedial references.

Of the three, Rajewsky focuses on intermedial references, arguing that "an intermedial reference can only generate an *illusion* of another medium's specific practices" (55; original emphasis). This quality that she describes as exhibiting "the figurative mode of 'as if'" helps to distinguish intermediality from remediation for the former's continued presence and reception of medial difference, with Rajewsky describing remediation "as a particular kind of intermedial relationship" (55; 49). As I explain in the main chapters, intermediality not only accounts for the effects of immediacy and hypermediacy for remediation, but can also make the reader ask what is being presented as immediate in the intermedial reference: the referenced medium, "as if" it is actually there.

Framed in this way, intermedial references function through the reader's recognition of the referenced medium through its significant alterity. Whereas in mixed media, Higgins argues that "one knows which [medium] is which," in the case of intermediality, the reader recognizes *reference* as such only through the understanding that one medium is different from another (52). Thus, against Higgins' argument that intermediality is the "fusion" of media—an argument that potentially flattens medial difference—Rajewsky's delineation of intermediality shows that difference is a crucial aspect of reading a text as intermedial. Additionally, Lars Elleström's nuanced framing of intermedial relations in "The Modalities of Media: A Model for Understanding Intermedial Relations" (2010) argues that media "are both different and similar, and intermediality must be understood as a bridge between medial differences that is founded on medial similarities" (12). He highlights the presence of medial difference in the very space of Higgins' conceptual "fusion."

Proposing an Intermedial Hermeneutics

At this point, it is necessary to compare the immediacy evoked in digital remediation to the "as if" quality of intermedial references. What distinguishes the latter—even while intermedial references offer the immediacy of the referenced medium and evoke its inscriptive functions and practices—is the dissonance inherent in each intermedial reference by way of its material instantiation: the material medium *cannot* be erased from the reader's reception because it is physically in their hands. In this way, the framework of the intermedial as an *encounter* between media begins to explore the dynamics of media representation as one that is not necessarily as straightforward an inscription process as transcoding or that can evoke a consequent effect of medial sameness, but as a dynamics fraught with potential intermedial tension, slippage, and dissonance.

In thinking about media representation and relation as media encounter, this dissertation offers a nuanced examination of media inscription as an act that occurs in the theoretical space in between media in what I describe as their liminal space, or, the intermedial. The identification of this liminal space forms this dissertation's hermeneutics of the intermedial, examining the intermedial as the site of media encounter, inscription, and potential medial difference. I will argue that insofar as the liminal is the theoretical space wherein one medium represents another so to evoke the illusion that the represented medium is present and to evoke its inscription functions and practices, the liminal is both the space of erasure of different media's materiality and the space of medial difference.

As an intermedial reference's dissonance between materiality and immediacy thus contains the trace of this erasure, this residue can be drawn out through the reader's negotiation of dissonance in a technique of intermedial analysis that I call a "dynamic media juxtaposition."

In the reading of an intermedial reference as both the medium being referenced and as a reproduction on printed paper, the reader engages in a negotiation that occurs both laterally (as a comparative reading of media that highlights their differences) and dynamically (as a negotiation of how these differences influence the media encounter).

By reading into print intermedial novels for the liminal spaces of media encounter, each chapter of this dissertation focuses on the negotiation of intermedial references' dissonance between materiality and immediacy. Each chapter thus has three objectives:

i) To contextualize the practice of intermediality not in terms of a linear media history (in which the digital and predigital are framed as the "new" and "old"), but rather, relative to a media ecology in which media can represent other media' inscription practices despite their respective historiocultural statuses;

ii) To account for the dynamics of this media ecology in a practice of encounter, whereby the double function of immediacy (as if the represented medium is present and its inscription practices are evoked) at once erases individual media's material instantiation and allows for the effect of medial sameness; and

iii) To critically examine how the print intermedial novel is able to foreground the significance of the first and second objectives, drawing the reader's attention to the erasure of materiality in the liminal that enables medial sameness, and in effect, renewing the reader's awareness of materiality and medial difference.

As our current media situation is one of intersection and referentiality, and the print novel can be treated as just one medium among others that is "up for grabs," my dissertation speaks to literary scholars who are trying to understand the narrative and the novel in theoretical and analytical terms that are not limited to traditional literary study, and also to media scholars who

want to re-read media histories and materialities in an age characterized by the dominance of techno-economic "newness" and medial "sameness."

Chapter Summary

Chapter 1, "In Between 'Old' and 'New' Media," begins my dissertation's development of a hermeneutics of the intermedial and materiality. I offer a literature review of the epistemological underpinnings that polarize how we think of media over history as "new" and "old," and that subsequently shape linear approaches to the development of media technologies. Aligning my dissertation with *networked* and *dynamic* approaches to media history as offered in the field of media archaeology, I perform a re-reading of Friedrich Kittler's Discourse Network theory that examines three stages of inscriptive media and functions that do not necessarily correspond to the definitive historical dates offered by this theory. As a part of this re-reading, I identify that through each stage of inscription media, the strengthening of a medium's effect of immediacy corresponds to a weakening of its material instantiation. In the case of the convergence and remediation of media, through which media represent each other, the immediacy of a represented medium is such that an impression of medial sameness is evoked—but only, I show, through the removal of material instantiation.

Focusing on the erasure of the material substrate, I inquire into the space of media representation—the liminal space within which media encounter one another and their medial differences may be flattened. Framing this theoretical space as "the intermedial," I explore theories of intermediality and specifically theories of literary intermediality for how they can be said to retain a sense of medial difference. This chapter sets up my dissertation's specific focus on the print intermedial novel, describing some of the formal, aesthetic, and cultural contexts of

these kinds of texts. I argue that the inherent material medium of print allows in each of these novels's intermedial reference a significant dissonance for the reader that occurs in the intermedial. That is, this dissonance occurs between the effect of immediacy that is evoked of the medium being represented and the reader's awareness of the material medium that offers this representation.

The remainder of this chapter draws from existing scholarship on and historical examples of literary intermediality in order to develop the objectives and modes of reading necessary for an intermedial hermeneutics. Building on these examples, I offer a method of reading intermedial references that I call a "dynamic media juxtaposition"—a reading that occurs both laterally (as a comparative reading of media that highlights their differences) and dynamically (as a negotiation of how these differences influence the media encounter).

Chapter 2, "In Between Material Paper and Orthographic Media," examines Jonathan Safran Foer's *Extremely Loud and Incredibly Close* (2005) as an example of a print intermedial novel that represents the inscriptive function of orthographic media, or, exact recording devices. In this chapter, I begin an analysis of the intermedial reference that argues that each must carry the inscriptive functions and practices of the media that they represent. Building on this effect, I explore *Extremely Loud and Incredibly Close*'s intermedial references to orthographic media and to the practice of orthographic inscription for how they augment the novel's themes of trauma and unrepresentability—for example, by evoking an illusion of immediacy for the reader, such that they may feel that they are looking at and holding the documents and photographs depicted by the novel. In turn, I analyze how the illusion provided by the reader's haptic experience undergoes a dissonance with the material paper upon which these documents and photographs are represented. The slippage and dynamic juxtaposition that thus occurs incites the reader's

awareness of the removal of a material referent in orthographic inscription and their awareness of the novel's materiality.

Chapter 3, "In Between Material Language and Post-Orthographic Objects," looks at Steven Hall's *The Raw Shark Texts* (2007) as a print intermedial novel in its use of concrete images. I explore the novel in terms of the post-orthographic—that is, digital—inscriptive function. Thus, this chapter analyzes post-orthography in terms of its separation between content and materiality, a process that occurs at the level of computer content management.

From this lens, I propose that the novel's intermedial references (its concrete images) possess a double dissonance. The first dissonance occurs between the material language and its spatiovisual arrangement to produce the immediacy of an image. What is interesting is that the images are used to incite a cinematic immediacy for the reader: they are treated in the novel and thus viewed by the reader as if they are filmic shots, an effect of immediacy that I argue lends to the realism of *The Raw Shark Texts'* fictional worlds. The second dissonance is between the material language of the concrete images and their intermedial reference to post-orthographic objects. As the images depict organisms that serve as metaphors for digital objects, they remind the reader that all digital content is composed out of pixels that correspond to transmitted data.

Chapter 4, "In Between the Material Book and Post-Orthographic Inscription," inquires into Mark Z. Danielewski's *House of Leaves* (2000) for how it uses the materiality of the print medium to justify its post-orthographic immediacy as "real." By examining the novel's multiple layers of embedded narrations as told through different inscriptive media, I ask two primary questions: first, how does the novel use intermedial references to the media forms that are associated with each of these mediations? Second, how do such intermedial references create an effect of immediacy for each of these media novels?

Exploring these questions as they correspond to the novel's layered structure, I analyze how each layer's presentation of immediacy serves to strengthen the immediacy of the layer it holds, likening this model to a matroyshka doll. What *House of Leaves* shows is that the reader cannot trust the text's claims that its intermedial references offer realistic representations, even when these references are embodied by material objects in the reader's very hands. As such, this chapter delves into the complexities of post-orthographic inscription for its representation of images and objects that have no material counterpart. The implication of this representation, I argue, is that it complicates how we associate media, and in turn, how we associate media materiality with the representation of what is "real" or true."

In my conclusion, "Remembering and Rewriting; or, Where is Materiality?" I address the relationship between historical consciousness and contemporary literature and creativity. In a discussion of how the epistemological underpinnings that shape a polarization of media as "old" and "new" in turn leads to a loss of historically conscious ways of thinking, I analyze examples of contemporary literature that mediate this loss. This discussion augments my conclusion's exploration of the applicability of the intermedial towards historical ways of thinking, towards remembering and rewriting historical consciousness itself. Specifically, I examine an intermedial hermeneutics as engaging in Alan Liu's theory of the "future literary," a creative method that precisely reacts and responds to the potential loss of historical consciousness. What an intermedial hermeneutics can reveal, I argue, is other ways of reading in and through history that which might otherwise be missed—including the materiality of the digital.

Chapter 1: In Between "Old" and "New" Media

Much of how we understand media relations is shaped by a perspective of technological media development in terms of linear progression and through the binary framework of the "new" and comparatively "old." In particular, the idea of technological "turns" lead to the conceptualization of separate technocultural and techno-economic ages, forming progressivist histories of media in which newer media are posed as dominant and superior to older media. Two consequences arise from the consideration of new media as "new" on the basis that they adopt and "improve upon" the characteristics of older media (Bolter and Grusin 14-5; 59). Older media are subject to discussions of their cultural legitimacy and potential cultural obsolescence, and the differences between older and newer media are potentially made irrelevant when older media's functions are appropriated.

Yet, arguably, older media abound in today's texts and tools, as their forms, modes, and materialities are still evoked. Examples include: digital applications that resemble the writing interfaces of stickie notes, notepads, and differently textured or formatted leaves of paper; font typefaces that appear with the scratch marks of calligraphy instruments and the angularity of typewriter letters; simulated modes of analogue media engagement such as radio and television static, highlighted text, and dog-earred pages; photography filters that mimic the aesthetics of grainy celluloid and Polaroids; and so forth. How can we understand these representations of older media systems if a linear understanding of media history (historical periods as occurring in succession) tells us that older media systems are no longer culturally legitimate or that they are obsolete? Which specific elements are no longer legitimate and which are retained—and why?

Or, is it in fact that the arguments for cultural illegitimacy and obsolescence are only valid in the guise of a conceptual media "newness"?

In this chapter, I set up my dissertation's approach to intermediality as a dynamic perspective on media relations over history that looks both forward and backward in its consideration of how media engage with each other. I argue for the value of developing an understanding of a media ecology in which media systems are seen as simultaneous in historical consciousness and cultural practice—a perspective that is formed by analyzing the inscriptive functions that media engender rather than the historical sequence in which they have appeared.

This dissertation's master term of a media ecology approaches media relations and the theory of remediation as more nuanced than they have previously been interpreted. The "double logic" of remediation that Jay David Bolter and Richard Grusin (1999) offer can be further scrutinized for the ways in which the representation of one medium by another can vary from reference and mimicry to the phenomenological simulation of presence ("immediacy"). And while phenomenological experience is a crucial element to how we understand the reception of representation, this dissertation is not rooted in the phenomenological alone.

In order to comprehend media in dynamic negotiation while also accounting for the many factors that drive such relations, the ecology that I offer must be treated as both networked and multi-layered, whereby analyses of media systems can occur on specific layers of focus such as historicity, material mechanisms, cultural practices, or economic influences, but can and must also occur with a mindfulness of these layers in multiplicity, as they collaboratively impact the ways in which we think about, treat, and use media.

In this sense, what this dissertation contributes to current media studies that hold one or several critical approaches to understanding media—lenses such as the historical, cultural, social, political, or environmental, and in critical terms such as the theoretical, pragmatic, aesthetic, or rhetorical—is the structuring of these approaches through the spatial metaphor of a networked

and multi-layered ecology through which they are situated against each other. The comparative condition of a media ecology is therefore founded upon putting in conversation four methods of analyzing media: a dynamic analysis of media history in the field of media archaeology; a genealogy of standards of representation over the history of technology; a Foucauldian archaeology of systems of power and representation; and a study of the shifting relationships of cultural practice and media content, forms, and materialities.

Drawing from these four approaches in order to etch out a lively environment for a media ecology, this first chapter serves as a literature review that travels among the work of various scholars of different historical periods, disciplines, and critical objectives. In some cases, I pair analytical approaches together in order to offer extended or updated arguments of older theories and frameworks. In others, I compare the theoretical models of scholars in similar or different fields. In doing so, I seek to build a toolkit of hermeneutics that is not restricted to specific ways of thinking about media, but that can account for and be applicable to the incredibly nuanced elements that shape individual media systems. Within a media ecology, then, I situate the representation of one medium by another as an inscriptive action or movement among networked nodes, and I seek to identify the processes and mechanisms of such actions or movements.

This chapter might therefore be described as itself a kind of ecology—not solely historical in focus, not a genealogy nor a narrative of ideas, but rather, serving as a series of observations of occurrences in process and of the factors that create occurrence. Importantly, this chapter is additionally an analysis of such ecologies, setting up the hermeneutic mode that I hold throughout the dissertation: what Marshall McLuhan calls an "anti-environment," or, a dive into and suspension out of an ecology through which one has enough critical distance to see both micro- and macro-level unfoldings in play.

The primary and overarching field with which this chapter is aligned is media archaeology, a field that has in the past few decades and especially since the 00s proliferated as a critical framework for a "historically oriented media studies" (Huhtamo and Parikka 1). Spearheaded by scholars such as Jussi Parikka, Erkki Huhtamo, Lisa Gitelman, and Thomas Elsaesser, media archaeologists analyze determinist views of media history. I specifically ground my approach through Jussi Parikka's (2012) branch of media archaeology, which offers a nuanced method to media history that informs my dissertation's hermeneutics of media relations and the intermedial. As will be illustrated, Parikka merges the Anglo-American and German media schools that shape media archaeology's two genealogies. He draws from German media scholar Friedrich Kittler's Discourse Network theory to examine historically specific contexts and conditions of technological development, and is also inspired by Michel Foucault's discourse analysis, promoting a specific but also dynamic view of historical stages in terms of connection, reference, and continuity.

Like Parikka, in this dissertation I also build upon the media theories of Kittler and the dynamic lens offered by Foucault. The reason that Kittler and Foucault are joined is similar to my rationale for for a "travelling" literature review: each scholar helps to address a lacuna left by another. Foucault's analytical focus arguably does not give enough credit to the influence of many technological forms and devices on discursive practices and therefore on discourses; while Kittler ameliorates this, he also comes from a tradition of German media studies that is historically focused and not interested in hermeneutics. Bringing these two approaches together, I model my approach on Parikka's integration of Kittler's focus on specificity and contextualization in the history of technology and Foucault's focus on historical continuity.

The field of media archaelogy's critique of the "compulsory newness" of media history

informs one of my dissertation's main arguments: linear and historically singular (which is to say, successive and partitioned off) approaches to media history possess the discursive implication of presenting media in terms of a chronological development; this perspective results in the idea that each newer media system culturally trumps and eventually makes obsolete older media systems—what we simply call "old" media. Such approaches to media history can be said to enforce and reinforce a split between concepts of "new" and "old."

I explore the emergence of media in relation to Kittler's Discourse Network theory. However, where Kittler's Discourse Networks describe techno-economic and technocultural shifts by delineating separate historiocultural epochs between the nineteenth and twentieth centuries, I contextualize the emergence of "new" media in each stage by focusing on how they introduce a new inscriptive function and new representational practices—functions and practices that once culturally established, I argue, become historioculturally available for reference and representation.

The referentiality and representation thus practiced is intermedial, accounting for the continues representation of older media by addressing, as Joseph Donatelli and Geoffrey Winthrop-Young argue in "Why Media Matters: An Introduction" (1995), the fact that

> binary constructions of "old" and "new" media do not allow sufficiently for the interpenetration of media forms … the idea of leaving one communication technology behind in favor of another fails to account for intermediality as the condition of media ecologies over time: the use of speech in cultures with writing, the continuing production of handwritten documents in the "age of print," the orality of the telephone and the radio as well as the "second orality" of television, the simulation of a typewriter by word-processing progress. (xviii)

My use of the framework of intermediality for analyzing and understanding media relations begins by complicating the separation of media into the "new" and "old"—which in our current historical period is arguably the separation of media into the "digital" and "predigital." This

approach to intermedial relations that follows Joseph Tabbi and Michael Wutz's observation that

> intermediality as a means of inquiry usefully complicates progressivist histories, in which every 'age' is an 'age of' something […] Kathleen Woodward has revealed the 'ideology of age' that often underlies such histories, and it is comforting, this late in the Age of 'the Age of,' to find interdisciplinary histories emerging that do not reify time into spatial patterns, each one unified by the communicative action-at-a-distance that a given technology or set of media provides. (9-10)

As an alternative approach to thinking of ages of technological development, exploring media relations in terms of their intermedial encounter poses the engagement of two media in a way that does not privilege the dominance of one over another.

Intermediality moves away from the idea that once a newer media with a unique inscriptive function is culturally established, it constitutes an epistemological *break* (rather than an influence on epistemologies and other existing modes of knowledge) such that an older medium's methods of communication and inscription are questioned for their cultural relevance and legitimacy. Following this line of thought, the print novels examined in this dissertation reveal that older media are still culturally legitimate and can also represent newer media, rejecting the idea that media exist in historical singularity (as if they are partitioned off) and that the "new" perpetually or necessarily supercedes the "old." Using intermediality as a specific example, this dissertation argues that media can and do refer to each other in historically reflexive and speculative ways.

The three novels that I have chosen are particularly adept at bringing to light the representational conditions and implications of specific inscriptive functions. As will be fleshed out further in this chapter, the purpose of these novels' mediations may be read as their and their authors' coming to terms with today's digital or post-orthographic conditions of meaning making against which each is inevitably situated and compared. Namely, these conditions occur as shifts to representation and therefore mediated phenomena in an age of post-orthographic inscription.

Does this shift thus constitute a new epistemological condition, or perhaps, to use Fredric Jameson's term, a new cultural logic? Rather than attempt at a definitive answer, I think any such claim would have to be grounded through a study of how post-orthographic inscription impacts our current media ecology. Towards such a study, I maintain in this chapter an observational positioning that is intent on analyzing inscriptive functions for their epistemological influence on how we have understood representation at different stages in history. This understanding is, I argue, not so much irreversibly altered with each stage as it is made more complex and rich through the addition of new representational practices in a networked and constantly referential media ecology.

The Discourse of "Newness" and the Lens of Media Archaeology

In this section, I will account for the economic and historiocultural underpinnings of the concept of "newness" in the development of technological media, and will then address media archaeology as a field that offers alternative approaches to thinking and writing about media over history. My analysis begins with how the historiocultural relationship between "old" and "new" media has been shaped by a techno-economically driven understanding of media history, the representation of which can be described as a "discourse of newness." This discourse, exercised in discussions of technological media development, shapes determinist narratives of described evolutionary and revolutionary turns, in the vein of what Jussi Parikka calls the "hegemony of the new," that appears rhetorically as a projected "compulsory newness" (11-2).

The practice of a discourse of newness may be identified even in early twentieth century philosophical texts that discuss sociocultural shifts brought on by technological development. For instance, Walter Benjamin (1936) elaborates on his theory of the loss of aura with the

argument that "the history of every art form shows critical epochs in which a certain art form aspires to effects which could be fully obtained only with a changed technical standard, that is to say, in a new art form" (1181-2). Here, Benjamin posits that each media system sets up expectations of representation and inscription that it itself cannot meet.

The problem with approaching the history of media development in terms of "newness" is that it anticipates perpetual betterment. First, it is necessary to avow that economic determinants subtend this discourse of betterment. We know that the "progress" of technology is driven by a techno-economic industry that plays a significant role in how we shape and view technological standards and goals, and that consequently paves the way for larger epistemological shifts—including how we think of media over history as occurring in successive and isolated "ages." In this sense, the concept of "newness" is linked to the economic drive of capitalism for "maximum productive performance" (Schumpeter 81). Joseph A. Schumpeter (1942) describes how capitalism relies upon a constantly renewed "need" for the replacement of older technologies and products with newer ones, a perpetual striving for betterment and development that he calls a "creative destruction" (81). This notion is built upon by Alan Liu in *The Laws of Cool* (2004) when he traces how the capitalist post-industrial apparatus, in order to conceal and perpetuate its inner logic, designates newness as "cool": media or technology appear desirable for their own sake, but this desire is manufactured to serve a deeper ideological and economic set of interests.

"Newness" does in fact describe large processes of social and cultural change: at the turn of the nineteenth century, the concept of "newness" was "part of a wider re-articulation of social ties, expert knowledge and professionality, and new high-tech spectacles integrated as part of everyday life" (Parikka 11). In the twentieth and twenty-first centuries, the fetishization of

newness is intensified through our heightened "focus on technical qualities such as 'speed, capacity, and performance,'" also further intensifying this economically driven techno-logic (Carolyn Marvin, qtd. in Parikka 11).

This discourse of newness requires further critical inquiry because it shapes the very ways we talk about, understand, and treat media—and by extension, the relationship between and among different media systems—over history. Many streams of media studies have relied on the assumption that it is possible to describe the history of media within paradigms of progress. The discipline does so with the demand "that we should see time and history as straight lines that work towards improvement and something better," as if, in an absolutely determinist way, there is a "'divine plan' of time development" (Parikka 12). Indeed, Liu argues that with regards to "technologies, techniques, and the efficiency of their alignment," there is a "predetermined result that the contemporary almost always outmatches the past" (302).

Jay David Bolter and Richard Grusin (1999) have observed this scholarly habit of expressing shifts in techno-economic standards according to the assumption that the new is always better or more adept than the old. In their development of a theory of remediation, they at once explain and criticize the notion that remediation (which they state is from the Latin word *remederi*: "to heal, to restore to health") is a course towards progress, a reform in a positive direction, as the "new medium is now expected to justify itself by improving on a predecessor" (59). In this sense, the practice of a discourse of newness in remediation risks becoming a determinist narrative of a linear media history. Arguably, even Bolter and Grusin exercise a discourse of newness at times by holding that technological reform comes with a quality of superiority: "Each new medium is justified because *it fills a lack or repairs a fault* in its predecessor, because *it fulfills the unkept promise of an older media*" (60; my emphasis).

Of note in practices of writing media history and writing about media in history, then, is a paradox in which the discursive reliance on a narrative of progress echoes that of the logic of capitalism, within which each period or technology is conceived of as if entirely replacing the last one. With each "improvement," the present comes to be cut off from the past; I will address this issue in detail further below. A serious implication of discussing media history within a discourse of newness is the practice of a "rhetoric of rupture," a term used in postmodernist theory by Linda Hutcheon (1988) to describe the discourse of a sociohistorical split between cultural epochs and ages.

In talking about different ages of media history as if they are separate, what I argue we must realize is that this discourse of newness repeatedly and fundamentally poses a problem for historical understanding—that is, our understanding of the very essence and nature of what history is and of its value. The discourse of newness not only affects how we understand the past; it affects the conception of the present and future. Liu describes our historical condition as one in which we readily anticipate the future: insofar as history is "useful" only when its relevance and application to current concerns can be proven, he argues that information culture and postindustrial society create a circumstance and style of thinking that is governed by the "eternal 'now'" (*The Laws of Cool* 8). Invested in pragmatics of the present, the eternal "now" concurrently anticipates progress through change and is always ready to become its own next stage. In this way, history, time, memory, and modes of thinking that use reflection—by which I mean acts of comparative thinking about that which exists in past and present moments—become engulfed in a "will be" condition. Lost is a regard for the future as a part of a process of history; information culture and post-industrialism pretend that there is no arc of trajectory, only

"here," the current position, and "there," the goal that is to be reached.[3]

A lack of historical consciousness can be said to result from a discourse of newness: for instance, Lisa Gitelman argues in *Always Already New: Media, History and the Data of Culture* (2006) that the framing of history in terms of ideas of "progress" perpetuates a lost continuum in the ways in which we talk about history, our historical consciousness (11). As applied to historical consciousness in media history, a discourse of newness shapes the ways we understand the relationship between "old" and "new" media. The discursive presentation of previous periods of media history as obsolete antecedents for today presents these periods as bearing a historical singularity, through which they are economically and discursively partitioned off.

Erkki Huhtamo and Jussi Parikka (2011) offer several examples of media history that work this way, including Theodor W. Adorno and Max Horkheimer's *Dialectic of Enlightenment* (1944) and Richard Hoggart's *Uses of Literacy* (1957).[4] In their estimation, both of these texts, in their "occup[ation] with reconstructing [media's] technological and industrial development," reveal a practiced rhetoric that Huhtamo and Parikka describe as being "usually linear," yet within which "different media forms were normally discussed in isolation from each other" (5).[5]

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[3] This discussion of Alan Liu's concept of the "eternal 'now'" originates from a short article that I wrote for *English Studies in Canada* entitled "'Efficient' Creativity and the Residue of the Humanities" (2014).

[4] Some would argue against Huhtamo and Parikka's including of *Dialectic of Enlightenment* as an example of a linear model of history, as Adorno and Horkheimer understand history in terms of dialectics.

[5] Other examples include various social theorists. In "The 'Autonomy' of the Technological Phenomenon" (1980), Jacques Ellul describes "technique" as ever-progressive. Martin Heidegger arguably offers an idea of a grand and continuing function of technology to aspire towards Plato's ideal forms in his "The Question Concerning Technology" (1977). Neil Postman's *Technopoly: The Surrender of Culture to Technology* (1992) presents technology as causing irreversible systemic changes to culture, arguing for significant cultural shifts through "technocracy" and later "technopoly." Daniel Punday (2012) has criticized Postman in particular for being a "spokesperson for the technological determinism implicit in the systemic view of

In presenting media history as a linear chronology of technological progress in which one media system replaces another, such approaches illustrate a perspective of historical singularity because they discursively treat media as if they exist and are utilized in their historical period alone. Such approaches, Huhtamo and Parikka argue, "share a disregard for the past" in the ways that they treat media history "as an all-encompassing and timeless realm that can be explained from within" (1).

There are alternative ways of approaching media history and of practicing media studies that avoid these traps. The field of media archaeology, which informs my thinking about media relations in this dissertation, seeks to counter linear approaches to media history—a narrative of "this is how and why we got here"—by looking at what dominant media histories omit. Rather than be restricted to identifying the origins of media in the present, media archaeologists look at the influence of media that have been forgotten: "here is what happened to the losers, which tells us about how and why we got here." Rather than see each "age" as separate from the last, they understand history more like a series of networked paths, with false starts, tangents, and dead ends. They show that the approach to media history as "progress" is really a myth, and call for other ways of envisioning the relationship between the old and the new.

What the lens of media archaeology lends to this dissertation is its dynamic analysis of how technological shifts impact the historical framing and understanding of media technologies. Erkki Huhtamo and Jussi Parikka's efforts have been fundamental in constructing a critical genealogy and robust language of media archaeology, and it is for this reason that their respective and collaborative texts are drawn from heavily in this chapter. In addition to studying the genealogy of media systems and their interrelations, media archaeology also offers a more

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media relations," especially through the theory of technopoly, which Punday argues risks contrasting technology and traditional culture as "two distinct thought-worlds" (8).

sophisticated contextualization of media at the levels of representation and reception, and through elements such as media operation, production, and materiality.

In particular, media archaeologists offer an increased focus on the *non-visual,* as they explore the histories of software, hardware, the electro-magnetic spectrum, and dead media, using their framework "as an artistic methodology and hence transporting it from investigation of texts to material culture as well" (Parikka 16). Media archaeology crucially recognizes that the computer as a tool, for instance, is involved in all stages of the capital circuit. This and similar examinations of various media's content distribution and exhibition are made richer by examining—arguably, they cannot be separated from—their equally fundamental elements of production, transmission, and materiality, and in this sense, their interwoven and continuing histories.

Before continuing, I must address a potential paradox that exists in the tactic of media archaeology to reject "history by modern media culture and theory alike by pointing out hitherto unnoticed continuities and ruptures," as this might suggest that a determinist "rhetoric of rupture" is something that continues to be practiced in media archaeological studies (Huhtamo and Parikka 3). In order to reconcile that media archaeology, in its criticism of a continuous and linear treatment of media history, could be said to be *looking* for historical rupture, it is important to note that media archaeologists are not looking for rupture in a sense that there is *no return* to a prior epistemological condition; rather, they are looking for discontinuity, interrelation, and the complex and contextualized presentation of media over history—viewing media history, I would argue, as a continuing conversation and negotiation of media in engagement. Indeed, I think rupture is precisely the wrong word to use in media archaeology, perhaps chosen as an overcompensation with the aim of trying to remodel the thread of linear historical narratives.

In this move towards a historically oriented and historically complex media studies, there is a particular need to break down a discourse of newness. One scholar who has written explicitly about this need is Siegfried Zielinski, who holds that "'the history of the media is not the product of predictable and necessary advance from primitive to the complex apparatus'" (qtd. in Parikka 12). Directly rejecting the idea that there is a single traceable developmental thread from orality to writing to visual media, Zielinski rejuvenates older ruminations on media history that speak to its circular and reoccurring movements and phases, including Marshall McLuhan's (1962) presentation of the electronic age as a return to orality and Walter Ong's (1982) work on the emergence of secondary orality. Continuing this discussion of media history in a way that does not suggest a rupture of no return, media scholars such as Zielinski are, Parikka argues, "rethinking the temporal structures of newness," asking the important recurring question "What is new?" (Parikka 11). This analytical technique, Parikka holds, rejects the "hegemonic linearity that demands that we should see time and history as straight lines that work towards improvement and something better," by proposing techniques to think about media over history in a *cyclical* way (11-2).

Re-Reading Friedrich Kittler's Discourse Network Theory

In proposing alternative approaches to media history, the lens of media archaeology also demonstrates that we can *re-read* the historical framing and understanding of media technologies. In this section, I propose to break down the historical singularity of technological stages through a re-reading of Friedrich Kittler's theory of Discourse Networks. In *Discourse Networks 1800/1900* (1990) and "Gramophone, Film, Typewriter" (1997), Kittler examines epistemological shifts between the nineteenth and twentieth centuries that helped to shape

modernity and modernism, tracing how technology constructs both our sense perception and our techno-economic conditions (Johnston 4). He coins the term "Discourse Network" to describe these shifts across historical periods of Western representation that correspond to technological developments and emerging techniques and standards of representation.

The reason Kittler's theory of Discourse Networks is important is because it offers a historically contextualized way to understand media, mediation, and inscription in terms of the relationship between medium specific content, form, and materiality. In particular, Kittler's inquiry into how emerging media technologies bring about significant epistemological shifts to the culture of a given age has influenced how contemporary media studies understand the representational and historiocultural roles of various media. As an approach to changing standards of representation, it allows us to examine the media technologies that follow the written word such as the typewriter, photography, and film—and has in turn been applied by other scholars and academic fields to examine digital technologies and culture. In these ways, each conceptual Discourse Network is potentially at risk of being read and treated in terms of historical singularity, even if this is not the perspective Kittler had necessarily intended. A further understanding of what he meant by the term can be fleshed out by translating the term from its German origin, "*Aufschriebesysteme*"*:* inscription system (as a recorded representation). Each Discourse Network is posed as the cultural establishment of specific inscriptive functions and practices that emerge from adjacent technological developments.

Where the advent of a new inscriptive function could be described as sparking a new Discourse Network, my re-reading of Discourse Network theory maintains a focus on the contexts and conditions of each stage of inscriptive media, and on the epistemological and representational influences of its functions and practices. In this way, I approach media as

historically contextualized but not historically bound, demonstrating that inscriptive functions permeate conceptual historical boundaries.

Hence, one crucial point must be made before delving into this re-reading. Returning to an earlier observation of a paradox between media "progress" and media history, the intention of technological "improvement" that grounds a discourse of newness and consequent linear approaches to media history also ostensibly underpins the development of inscriptive functions that I am here trying to read outside of the schemas of progress, newness, or linearity.

Media and the ways in which we talk and write about media cannot escape the linear structures through which many cultures and societies understand time and change; this dissertation does not attempt to argue otherwise. Yet, at the same time, the significance of historiocultural memory and consciousness cannot be undervalued for how they allow for a complicating of media as referential and continuous. To this effect, I address this paradox of "progress" and media history precisely by focusing on inscriptive functions, which are certainly established in specific historiocultural contexts and through specific technological means, but are not necessarily restricted to those eras in the practices of reference or representation. A new inscriptive function is not "new" in the sense of the discourse of newness; it does not necessarily make former inscriptive functions and practices culturally illegitimate or obsolete, but instead, can be understood as enriching modes and methods of representation over time.

To illustrate how this enrichment occurs, I will focus on a specific aim of the media "progress" that fosters new inscriptive functions: the aim of realism through media representation, which we can understand by returning to Jay David Bolter and Richard Grusin's theory of remediation. Focusing specifically on visual media technologies, Bolter and Grusin suggest that media can never stand alone, that media have always come out of another medium

and its representative and communicative system: "new media are doing exactly what their predecessors have done: presenting themselves as refashioned and improved versions of other media" (15). A question arises: improved in what sense, according to what standards? These standards are revealed by examining the goals of realistic and transparent representation relative to the described "double logic" of remediation. Remediation works through an arguably constant negotiation between hypermediacy and immediacy. Hypermediacy is the explicit representation of multiple media in usage; it "expresses itself as multiplicity" (33). It is a media user's knowledge that another media form is being recalled, such as the representation of sheets of paper in many word processors. Immediacy is the idea that the media user is so immersed in the new media that they forget this recall. In this liminality of interface representation, Bolter and Grusin argue that new media *want* us to forget the recall, want to provide a level of engagement. Based on these descriptions of the drive towards immediacy, "improved versions" of media aspire to immediacy, whereby immediacy is what is framed in terms of a discourse of newness.

The antecedent to the development of immediacy in the age of mechanical reproduction is the far earlier invention of the linear perspective. Developed by Leon Battista Alberti among others, and with ties to a Cartesian logic of perspective, the notion of linear perspective explores technologies that make it possible to picture the world as though it were seen through a framed, transparent window (what is called "the Albertian window") (Bolter and Grusin 25). Alberti influenced the tradition of perspectivalist painting, the dominant tradition through which Western culture has conceived of a realism in representation that works by "conceal[ing] and den[ying] the process of painting in favour of the perfected product" such that the painted image seems real and present (Norman Bryson, qtd. in Bolter and Grusin 25). In other words, the medium of painting works towards immediacy through transparency, predating technological immediacy by

making the medium transparent, such that the depicted object is made to feel present.

Bolter and Grusin write about the visual cultural development of transparency and its movement into the eventual epistemological sense of the cultural "superiority" of immediacy as a desired perspective aesthetic and experience, tracing the intensification of immediacy from the orthographic in photography and cinema to the transparent immediacy of computer representations. In this sense, the story of remediation is the story of how mediated representation became technologized.

A closer look at the increase of immediacy over different developmental stages of media inscription as they are framed in terms of Kittler's Discourse Networks shows that the effect of immediacy risks flattening the differences among media—their important historical, cultural, and representational differences. In the next section, I discuss varied but intersecting approaches to Discourse Networks that reveal that, in their respective inscriptive functions, the effect of immediacy is at the core of each. In this effort, I pose the different stages of inscriptive functions for how they move towards strengthening the effect of immediacy, and, in turn, for how they weaken the reception of materiality and material instantiation. That is, I position my re-reading of technological stages of inscriptive functions in terms of their respective relationships between immediacy and materiality.

Of each Discourse Network, I ask several questions with regards to changed standards of representation that focus less on the development of "new" technological media and more on the inscriptive functions that they engender:

i) What inscriptive function is introduced through new forms of media representation and how does it evoke the effect of immediacy?

ii) What is the subject's understanding of the transmission of content through this

inscriptive function?

iii) What happens to materiality and material instantiation in the face of this inscriptive function?

In answering each of these questions, I do not approach Kittler's Discourse Network theory in terms of definitive historical dates that prescribe inscriptive practices as having singularity in our historiocultural imagination. While inscriptive functions and practices may be introduced in specific historical periods, as I will show, their function through cultural establishment and cultural memory has longer reach.

Inscriptive Functions: The Textual Symbolic, Orthography, and Post-Orthography

Inscriptive functions have an epistemological influence on the understanding of representation at different stages of history—an understanding that is not so much irreversibly altered with each stage as it is made more complex and rich through new representational practices. Honing in on inscriptive functions as they are discussed in Discourse Network theory, my focus augments the act of inscription as a primary factor in understanding medium specificities and shifts over media history. I am largely inspired by Mark B.N. Hansen's (2004) delineation of changed standards of representation that occur with the advent of technological inscription—that is, methods of inscription that operate through technological media. I draw from his description of an "orthographic" inscriptive function that emerges out of exact recording technologies such as the camera.[6] Orthography as an act of exact representation is, Hansen holds, a different inscriptive function from older culturally established symbolic forms of representation that also aim for immediacy as a type of realism, including the plastic arts and the

[6] It is of course arguable that orthographic media are not "exact," as, for example, the manipulation of photographed images has always been possible.

written word. Arguably, Kittler's theory of Discourse Network describes the same shift, highlighting how a new inscriptive function at the turn of the twentieth century serves as a major factor in epistemological shapings and underpinnings.

Aligning Kittler's theory with Hansen's focus on inscriptive functions, then, I address the relationship between immediacy and materiality in each stage of inscription technology by exploring the corresponding relationship between form, content, and materiality. The stages of inscription that I focus on are: the "textual symbolic" (my term to describe the inscriptive function of the written word); the "orthographic"; and what Hansen describes as the "post-orthographic" inscriptive function of digital media.

I also draw from Alan Liu's discussion of frameworks of representation in "Transcendental Data: Toward A Cultural History and Aesthetics of the New Encoded Discourse" (2004), as it accounts for how technologically driven shifts to the Western history of representation have fostered current circumstances of digital culture, capital, and digital representation by first impacting the relationship between the production, transmission, and reception of content. The key feature that Liu traces from Discourse Network to Discourse Network is the idea of a *source* of articulation, or, the source and process of content transmission that, with every Discourse Network, becomes noticeably more and more disassociated from materiality. Liu, who in his earlier academic career was a Romantic scholar, argues that Discourse Network 1800's writing and literature utilizes an idea of muses through which the sources of transmission—here, authors in the form of writers and poets—were inspired to articulate the objective essence of (Mother) nature ("Transcendental Data" 80). This inspiration to transcribe and translate the phenomenological experience of the world seems to be similar to a desire described by Martin Heidegger in "The Question Concerning Technology" (1977) in his

own examination of the use of techné (technology as human-made tools): an aspiration to represent a noumenal object's true essence through the subject's experience.

The inscriptive function of Discourse Network 1800 can be epitomized by the written word, or what I call the "textual symbolic." For the author, the written word as the medium of the textual symbolic and as what Liu calls a "channel of transmission" is used in a symbolic engagement of signified meaning, where the syntagmatic threading of words together in sentences forms concepts that offer a symbolic representation of phenomenological experience (80). While this symbolic function of the word as a form of signification far predates the nineteenth century, what distinguishes Kittler's specific understanding of the word in Discourse Network 1800 is that it was shaped in accordance with a Romantic-era idea of representation, whereby language was disposed as a "homogeneous alpha medium" capable of uniting the actions of speaking, hearing, reading, and writing (*Kittler and the Media* 62).

In this discussion of translating experience through the textual symbolic, it is additionally important to highlight how Discourse Network 1800 configured the role of the hand in wielding the word. Heidegger's description of the human hand as an extension of the human body suggests its "natural" relationship with paper or a writing instrument (*Kittler and the Media* 61).[7] This naturalization is likely in part to do with the necessary imprinting of a subject's personal handwriting in the act of writing, whereby they leave their own "trace." As the hand was also seen as the source of a flow of creativity, Liu describes this flow in terms of Cartesian dualism, a relationship between the body and the object where the body is the originating and subsequent central vantage point for perception and experience.

[7] Heidegger's description here has a notable similarity to Marshall McLuhan's theory of technology as "extensions" of the human body in *Understanding Media: The Extensions of Man* (1964).

What we can discern in Discourse Network 1800, wherein the author is the identifiable source of transmission, is that the transmission of content and conditions of receiving that content are linked to the same media source; that is, the materiality is made aware. The ink on a page can be traced to the hand or press that inscribed it, and in the same way, it cannot be separated from the paper, papyrus, canvas, or other storage medium that houses it. Even against Bolter and Grusin's description of the logic of immediacy and how it encourages realism in representation, even in the most realistic painting or illustration, if we look close enough, we can see individual brushstrokes.

In contrast, the advent of mechanical media technologies created a change in the relationship between materiality and content that signals a move towards what Kittler calls Discourse Network 1900. If the written word had functioned as a primary method of storage in the nineteenth and preceding centuries, its status was dramatically changed by the turn of the twentieth century, as mechanical recording and inscription devices freed the alphabet both from its role as a primary storage technology and as a primary medium of communication for individuals (Tabbi and Wutz 8). The emergence of mechanical technologies of inscription such as the typewriter had a particular impact on writing at this time, altering the author's relationship to writing in a process that Heidegger saw as an unnatural relationship between the human subject and machine. As a medium—literally, the thing in between—the typewriter would intervene in the hand's otherwise "natural" contact with paper (*Discourse Networks 1800/1900* 45). What resulted from these technologies, and also from the freeing of the word as a storage medium, is the advent of the inscriptive function of exact recording.

The aspiration for "translated experience" as a logic of representation is similar, if not fundamentally linked, to the development of immediacy. The aspiration for immediacy and

transparent medium may be further explored vis-à-vis the cultural advent of exact and mechanical recording technologies such as photography and cinema. Speaking to how the cultural and epistemological advent of these technologies considerably altered parameters, possibilities, and expectations of "representation," film scholar Mary Anne Doane (2002) posits that the emergence of the efficient machine of mechanical production allows for a conceptually "perfect" reproduction of reality to be realized as a possibility. Additionally, Walter Benjamin (1936) evaluates the changes to the cultural text and artefact during this age, attributing the new possibility of absolute reproduction in factories to the same reproductive quality in the media forms of cinema and photography. The reproduction of texts and their archival, distribution, and exhibition led Benjamin to ascribe to production new representational and communication techniques that, when put into effect, led to the loss of artistic "aura"—the experience of an individual artwork that is singular to that moment and time—and destroying the auratic function overall "by removing it from the context of ritual and tradition in which art had been historically embedded" (Bolter and Grusin 73). Liu's contribution to analyzing these inscriptive functions is to trace the source of transmission in Discourse Network 1900. He argues that new channels of transmission such as radio waves (carrying the signals of the radio and the telegraph) led to ideas of the mechanization of the source, such that it could be described as inherently possessing "an apparently random, senseless, automatic, untranslatable, and thus nonhermeneutic noise" ("Transcendental Data" 81). Ideas of radio static and telegraphic beeps come to mind—alienating noises out of which we might arbitrarily make meaning.

The connection between these changed conditions of transmission and Kittler's Discourse Networks emerges through an examination of exact recording technologies, which Roland Barthes explores in *Camera Lucida* (1980) and which Hansen (2004) defines as the inscriptive

function of "orthography." Literally translating as "straight writing," by which is meant an exact recording of a material object, Hansen describes orthography as "the inscription of the past as real and exactly repeatable" (603; 601). To this end, film theorist André Bazin (1980) argues that the Western obsession with realism of representation is "fulfilled" by photography and cinema. Foregrounding these conversations in relation to the desire for immediacy in representation, Bolter and Grusin describe others' beliefs that the photograph is the perfect Albertian window, a picture frame that truly shows reality (albeit an absent presence), as its "reproduction" of reality, Bazin argues, releases us from our obsession with reality by quenching it (Bolter and Grusin 25).

Insofar as the photograph achieves an exact inscription, registration, and repetition, Hansen calls it the "purest" orthography because it invokes a feeling of presence of the captured object, even though its image is merely a trace. For Barthes, the material referent of the photograph (the captured object) is "'the *necessarily* real thing which has been placed before the lens, without which there would be no photograph'" (qtd. in Hansen 603; original emphasis). In reality as with the photograph, there must be an object for phenomenological engagement that is perceived and grasped mentally through a language of representation whether that language is linguistic, visual, or technologically recorded.

In this sense, the emergence of orthographic recording technologies changed the conditions of content reception by no longer requiring a material object (as a material referent) to be *present* in order for it to be perceived. Photography captures the image of an object; its photographic product offers the illusion of immediacy of an object that is not truly present. In cinema, the recording of content through the camera can be isolated from the representation of the content, as the spectator receives the content through the screen and can forget the cinematic apparatus. The disassociation between the represented object as immediate and the materiality of

the recording medium consequently create a decreased awareness of the material contexts and conditions of a medium, as the represented content—and by extension, the viewer or spectator—is physically and perceptually removed from the recording device and transmission device.

We can describe the continuation of this abstraction and separation of content in the current age in terms of Liu's theory of shifts to form, content, and materiality in the twenty-first century, through what Liu calls a "Discourse Network 2000." His arguments reveal a unique inscriptive function, an observation that avoids the framing of technological stages in terms of historical singularity.

To summarize the role of content relative to inscriptive functions outlined thus far: in Discourse Network 1800 and the inscriptive function of the textual symbolic, the transmission and consumption of content occur through the same medium such that the materiality of that media system can be identified. Discourse Network 1900 and the inscriptive function of orthography introduced a dimension of separation between transmission and content. Liu furthers the historiocultural inquiry, outlining how, beginning in Discourse Network 1900 and intensified in Discourse Network 2000, post-industrialism's principles of data standardization among machines in the transmission of content have the effect of removing the material substrate "to allow for internet transmission, [such that] variable methods of standardization … could suddenly be imagined" ("Transcendental Data" 80).

Liu's central argument is that computer-based digital media have led to the further "separation of content from material instantiation or formal representation ("Transcendental Data" 58). He offers that Discourse Network 2000's division between content and materiality must be understood at the level of content management (the processes through which a computer stores, manages, and treats data), through which what a user encounters on the screen is separate

from the technological processes that produce screen representations. Content exists in computers in numerical representation and in the language of data, organized into databases and encoded through markup schemes to occupy data-filled spaces in a process that Liu calls "data transcendence" (59). In this sense, the production and transmission of content is kept separate from its visual representation and consumption by a media user, and it is this underlying division between transmission and reception that governs digital media's form and content relations as one wherein materiality is done away with. Material forms as "bodies" or "harnesses" are seen as irrelevant when the content or data can transcend it.

It is necessary to note that the ideas of content abstraction and consequently of "transcendence" have largely functioned as a discursive imaginary and ideal in the fields of information technology, computer science, and digital media studies.[8] Nevertheless, it is from this position that I analyze these terms of content management; this is partially because of how the notion of "transcendence" can be used to renew focus on media materiality (in a way that will be explored below), and partially in order to account for the imaginary and ideal capital circuit with which digital devices and digital content are often grounded. That is, Liu notes that a major benefit in removing the "material substrate" as a structural or representational factor in digital form and content "made possible the most far reaching efficiency-cum-flexibility" (80).

It is therein that we arrive at an inscriptive function of digital media—what Mark B.N. Hansen calls the "post-orthographic" function. The notion is as follows: as digital objects can be composed out of data, codes, and corresponding pixels with no material counterparts, the necessity of an original material referent is irrelevant in digital forms of representation. This lack

[8] It would be useful to consider more recent methods of content management and representation that require less abstraction, such as NoSQL (a database model), HTML5 (a markup language) and JSON (an open-standard format for content management). I address the potential for dynamic content representation through NoSQL in a paper separate from this dissertation.

of Barthes' "*necessarily* real" object is what distinguishes post-orthography as a separate and unique inscriptive practice, the modes of representation of which will be explored in detail in Chapters 3 and 4.

In order to understand the relationship between materiality and immediacy in post-orthographic inscription, we can flesh out how digital content evokes an effect of immediacy. Arguing that computer designers seek to make the computer experience as "natural" or "real" as possible, Bolter and Grusin describe the desire of these designers for "an 'interfaceless' interface, in which there will be no recognizable electronic tools—no buttons, windows, scroll bars, or even icons as such" (23). Insofar as such an interface would allow the user to interact with digital objects "naturally," Bolter and Grusin point out that computer graphics strive for more and more immediacy. While the effect of immediacy is not specific to, nor did it begin with, computer-based media, digital media are arguably more efficient at it (11).

To further understand how the post-orthographic inscription of content achieves immediacy as if there is no medium (as both an aesthetic and experience), it is helpful to look at Lev Manovich's delineation of what he calls the "aesthetic of seamlessness" in new media. Manovich writes on different computer operations (menus, filters, and plug-ins on the one hand, and compositing on the other), holding that "they are not only ways of working with computer data but also general ways of working, ways of thinking, and ways of existing in a computer age" (118). This second operation, digital compositing, is described in terms of the construction of a space that can be described as post-orthographic, as it "represents something that never took place in reality," as it is a space in which every individual layer can be controlled separately but brought together to appear "seamless" (138-9). Following his observation that one principle of new media is the existence of modular composite parts, the individual elements of this composite

virtual space have a relationship of interactivity that is made possible through its modular, separate organization (139).

The compositing of images, texts, elements, and practices is extremely salient to how we can understand the aesthetics, poetics, and cultural practices of digital culture. The shift in sociocultural practices that derive from these operations is such that "strategies of working with computer data become our general cognitive strategies" (118). In this sense, operations are akin to "procedure," "practice," and "method," and Manovich argues that merely calling these elements tools or mediums is not descriptive enough (121). Indeed, the processes of selection and composition allow for the practices of appropriation and sampling that we associate with digital culture and cultural practices, as they "simultaneously reflect and enable the postmodern practice of pastiche and quotation" (141). In a discussion of the differences between a postmodern cultural logic (defined in terms of Fredric Jameson's formal features and aesthetics of a cultural age) versus a computer logic of aesthetics, the key distinction is the presence of boundaries in postmodern texts (even in intertextual texts and objects) as opposed to the deliberate digital illusion of seamlessness (see Jameson 1991). As such, Manovich proposes that seamlessness is the aesthetic perspective of our times (142). Seamlessness offers the illusion of being real, erasing boundaries, brushstrokes, and all hints of the material medium by remediating media content through a representation of their "sameness."

We can thus say that immediacy on the screen interface fosters the illusory separation between media materiality and represented content in two senses: firstly, by making the represented content on the screen seem as if the screen is the space and place of phenomenological existence, which is only made possible by, secondly, disassociating this content on screen from the material objects and contexts of the actual delivery systems

(including hardware) and transmission operations (including software and computing transitions) of the computer.

It appears to be no coincidence that the aesthetic of seamlessness and the effect of a medial sameness lend to the framing of digital media as "new" through their capacity to produce a powerful effect of immediacy. Indeed, digital media embody contemporary "newness" through seamlessness and sameness in the act of remediation, through which digital media can evoke the immediacy of older media and their characteristics and practices. What must be examined, then, is how the effect of immediacy fosters a way of talking about digital media as if they are "transcendent" and transcendent of materiality—including, as I suggest above, the discursive imaginaries and ideals through which the abstraction of content is often discussed.

Perhaps one of the best examples is Peter Lunenfeld's theory of a digital dialectic in "Screen Grabs: The Digital Dialectic and New Media Theory" (1999), which argues for a contemporary move away from the twentieth century's hold to Marxian dialecticism, the framework of Dialectical Materialism of which the ideal object is defined as matter (xvii). The digital dialectic moves towards the theory of ideas that supersede themselves: transcendence through material disassociation (xvii). The risk here for materiality is that such digital content can become disassociated from the contexts of its original material contexts and conditions.

It is worth investigating in this process what Lunenfeld's concept of a digital dialectic and its ideal object look like. If it builds from Dialectical Materialism, then it can also be said to be grounded upon the Hegelian dialectic sequence of the thesis-antithesis-synthesis from which Karl Marx and Friedrich Engels based their analysis of higher and lower forms of matter. Here, I read two media as the thesis and antithesis of digital representation; their synthesis occurs both on the level of data (the level of content production and transmission) and also on the level of

reception on screen—the precise division between the transmission and reception of digital content identified by Liu. The inscription of their synthesis into the data language of what Lunenfeld calls "a pulsing stream of bits and bytes"—an inscription that drops the materiality of these media—is what allows for the effect of immediacy on the screen interface ("Unfinished Business" 7).

Yet, this exploration of Lunenfeld's digital dialectic underlines a key difference between how he uses the term "transcendence" in comparison with Liu. Lunenfeld describes the post-orthographic writing together of separate media into a *transcendent ideal object* with seamlessness, sameness, and immediacy, whereas Liu describes the post-orthographic writing of content into data such that it is disassociated from materiality, becoming *transcendent data.* Certainly Liu describes a stage of post-orthographic inscription that is followed by Lunenfeld's transcendent ideal object; however, Lunenfeld's theory is arguably made more complex when brought together with Liu's focus on content management, through which the *act* of dropping the material substrate is made evident. It is for this reason that I draw from discussions of abstraction and transcendence in my study of digital content management.

The salience of understanding how and why the material substrate is removed in order to evoke the effect of immediacy cannot be understated: it is the very act of writing together separate media that erases the significant alterity of each distinct medium. The aesthetic of seamlessness and the effect of immediacy are in this sense a result of remediation that occur through what Bolter and Grusin call a "technique of erasure" (27).

The effects of orthographic and post-orthographic immediacy, then, in pretending that no mediation is occurring, subsequently reveals a crucial feature of the advent of orthography and post-orthographic inscription: that *the act that artificially represents the joining of two or more*

media as a translation, as if they "speak the same language" and exist in the same representational platform—the act of inscription itself—must be erased in order for the effect of immediacy to occur. For this reason, the theoretical space of media relations can be imagined as the liminal, or the intermedial, as it is the site of media encounter, connection, and exchange. The intermedial is therefore both the space in which one medium is inscribed by another and also the space in which this act of inscription is rendered invisible.

A Media Ecology: Networked Approaches to Media History

The erasure of the act of inscription has profound implications for how we historically frame media, and by extension, for how we understand media relations in terms that potentially include seamlessness and sameness. Orthographic and post-orthographic media that represent older media and present them as the "same" risk flattening their differences, eradicating the specificities, materialities, and histories of each older media system that is represented; these elements are necessary to moving away from linear models of media history and their embedded polarization of media as "old" and "new."

Kittler arguably anticipates the historical flattening that accrues from more and more technologically sophisticated recording devices and inscriptive functions, seeking in the face of a medial sameness a potential *medial difference*. He argues that

> more and more data streams [that contain historical information], originally from books, later on from phonograph recordings or films, disappear into the black holes or boxes that, as mere artificial intelligence, abandon us on their way to nameless high commands. *In this situation, only hindsight remains, and that means stories.* How that which can no longer be found in any book came about can just barely be recorded in books. Operating at their limits, even antiquated media become sensitive enough to register their signs and indices of a situation. ("Gramophone, Film, Typewriter" 28-9; my emphasis)

Here, Kittler speaks to how the significant alterities of, between, and among media can call

attention to definitive borders and boundaries of media—interestingly, by arguing that a potential medial difference can occur through historical consciousness and mediation.

Augmenting the historical power of media, the field of media archaeology investigates alternative models, or "stories," of media history. Because media are the forms we use to record history, they shape our very concept of history. Lisa Gitelman stresses this point by arguing that "our sense of history … is inextricable from our *experience* of *inscription"* (21; original emphasis). The agency and function of media as what Gitelman calls "historical subjects" is intertwined with the fact that history itself must be conceived of as both what happened in the past and as the practices of representing that past (5). The power of media inscriptions is to "attest to the moments of their own inscription in the past. In this sense, they instantiate the history that produced them" (20). As subjects, objects, and acts of inscription, media offer us a form in which to record history and also shape the very conception of the histories that they record. They offer scholars a form to analyze the ways in which we record history, serving as a testament to the moment, contexts, and conditions of inscribing history.

Hence, in addition to understanding media as the object of inscription (a historical representation) and the subject of inscription (a tool and mode for historical representation), I argue that media can also be understood as *actions,* as they perform the act of inscription. The portrayal of media and of inscription in this way is significant for how it accounts for historical representation as a testament to the historical moment and conditions of representation. In the case of the inscriptive functions of orthography and post-orthography, which erase their media's inscription of other media, I am interested in the liminal site of media relations as the site of erasure and as a potential site of the act of erasure.

In order to develop this framework of thinking about acts of inscription relative to media

relations in and over history, I build on work in media archaeology that encourages scholars of media history and media studies to attend to the nature of the media they inquire into, but also of those media that inform their approaches to history. Gitelman makes a case for media and media scholars to be self-reflexive about their own analytical inquiries, to "inquir[e] into the history of a medium that helped to construct that inquiring itself" (21). Following this line of thought, I explore media as actions in order to analyze how our inscriptions *through media* and *of media* offer insight into our historical understandings of them.

I begin by drawing from media archaeology for its theories of alternative models of understanding media history and thus of media relations over history. The technique of writing history in a networked manner is precisely the attempt to avoid writing as if historical periods are successive and partitioned off. Therefore, what is proposed through media archaeology's reassessment of media history is the imagining of alternative models of media history, the endeavour of which is articulated by Noël Burch and later borrowed by Thomas Elsaesser in "The New Film History as Media Archaeology" (2004): "it could have been otherwise" (Elsaesser 6). Elsaesser uses the brevity of this statement to reject a linear approach to media history by contending that our present media circumstances are exactly circumstantial. Parikka in turn urges that we move away from the idea that there is "only one possible end result from the various strands, streams and ideas that formed the (audio)visual culture of, for instance, the mid and late nineteenth century" (13). Media archaeology thus shows that alternative models are not only possible, but necessary for a more complex and nuanced understanding of the existence and development of media.

The construction of these alternative narratives of media history is due in part to the field's heightened emphasis on heterogeneity of perspective and position—in order "to

encourage 'traveling' between discourses and disciplines" (Huhtamo and Parikka 14). As such, media archaeology is a "travelling theory" that nonetheless does not have nomadism as a goal: the intention is to utilize and "promot[e] dynamics of a concept creation and knowledge exchange"—a dynamic movement that characterizes the efforts of media archaeology to "uncover dynamic moments … abound and revel in heterogeneity and, in this way, to enter into a relationship of tension with the various present-day moments, revitalize them, and render them more decisive" (Parikka 15; Zielinski, qtd. in Parikka 12).

Aligning my dissertation's approach with media archaeology, my focus on stages of inscriptive functions that are historically shaped but not historically bound similarly endeavours to avoid framing media relations in terms of linearity and historical rupture. I propose a re-conceptualization and cultural re-imagination of media relations in terms of a networked and dynamic media ecology, through which I argue we can understand the meeting of media as *encounters* rather than as the enveloping of "old" media by "new" media. I draw the term "media ecology" from how it is used by Joseph Tabbi and Michael Wutz in the introduction to *Reading Matters: Narrative in the New Media Ecology* (1997): they quote systems theoretician Niklas Luhmann as describing the value of an ecology model of media to "'reinvest the old (in this case, print) with new meaning, as far as it lets itself be integrated. New technological achievements do not necessarily mean the forceful negation of older media, but rather their recombination'" (Luhmann, trans. and qtd. in Tabbi and Wutz 9). Building on Luhmann's observations, Tabbi and Wutz propose the framework of "an enlarged media environment [that] leads not only to 'differentiation'—a definition of each medium's alterity from other media—but also to a productive ecology, a reciprocity between media that ensures the continued presence of older, less advanced storage and communications technologies" (9). I also build on Daniel Punday's

approach to a media ecology in "The Rhetorical Construction of Media Ecologies" (2012), in which he argues that the metaphor of an interconnected media ecology fills the lacuna for "an understanding of the media environment that is flexible, open to change, and marked by the agency of its participants" (5). Punday adds that "the language of media ecologies emphasizes multiple relations among media at any one time," thereby encouraging the critical perspective of "simultaneously occurring phenomena" (12).

What the framework of a media ecology offers, then, is a way to read backward and forward into, between, and across media over history. I use it to augment my dissertation's comparative approach to understanding media relations that is both lateral in its focus on differences between media and dynamic in its negotiation of how these differences impact the media encounter. The lateral and dynamic understanding of media relations will be important later as I propose a hermeneutics of reading in between media.

Dynamicism in Networked Models of Media

To set a media ecology within the framework of media archaeology, I am inspired by existing spatialized models of media history offered by media archaeology, models of a *networked* and *dynamic* media history within which media are posed as engaging in ongoing historiocultural interactions. Specifically, I draw from Jussi Parikka's cartography of old and new media and Lisa Gitelman's culturally shared mental map of representation, which allow us to understand media today as perpetually telling and retelling the stories of their histories, and of their ever-changing practices and statuses.

Gitelman's technique for analyzing media as historical subjects involves setting up a spatial metaphor on which she paints her exploration of "socially realized structures of

communication" (6). As part of an archaeology of media systems and to complement these socially realized structures, Gitelman first offers an exploration of the relationships between form and content as they pertain to media technologies, making the salient differentiation between forms of technologies (what Henry Jenkins calls "delivery systems") and media protocols, the cultural systems that are formed by these technologies and their practices (Gitelman 7-8; Jenkins 14).[9] This distinction enhances historical research on media by identifying that cultural protocols, ingrained and established in communication practices, potentially hold more "cultural transparency" (their explicit cultural function and relevance) than the delivery systems that shape and support them (Gitelman 7). As such, older media protocols that become well established in cultural practices, rhetoric, usage, reception, and knowledge can over time become divorced from their original media form and, in turn, from that media's material circumstances for content production and representation. For instance, the description of English alphabet letters as being either "upper case" or "lower case" can be traced to the development and cultural impact of the Gutenberg press, as individual letter blocks were kept in either the upper or lower cases of storage shelves (see Elizabeth Eisenstein 1980). The Gutenberg press as a technological form has become culturally obsolete, but the cultural practice of calling these letters so still remains in use.

Gitelman imagines a structured space of a "culturally shared mental map of representation" that situates the establishment of media protocols in a spatial representation of media (7). Older media and their protocols, while certainly disoriented on a map of media, do not disappear altogether. The continued prevalence of older media is salient to my examination of

[9] Similar to this approach is a media archaeological antecedent, Jacques Perriault's *Mémoires de l'ombre et du son* (1981), a study on the relations between the "use function" and "social representation" of media.

the relationships between notions of "old" and "new" media, because Gitelman's approach suggests that once a medium is culturally established, its cultural protocols remain available through historical consciousness, and as such, media systems can potentially exist in a simultaneous and networked. As such, a mental map of media—or, what I reconfigure as a media ecology—is an apt lens for analyzing ongoing encounters between and among media over history. Examining the early history of medium A allows us to figure out the early history of medium B, and in both cases, we are allowed to further explore material and social configurations of meaning and communication (18). In fact, this comparative approach is necessary in the discussion of historical parallels as we seek to understand how some things have historically fit together and others not; by not acknowledging these parallels, Gitelman holds, we fail to recognize the significance of an older media *when it was new* (18).

In an effort to examine media interactions in a way that looks both backward and forward, I also draw from Parikka's development of a cartographic historicism in "Cartographies of the Old and the New." In this introduction to his book *What is Media Archaeology?* (2012), Parikka attempts to map out ideas of "old" and "new" media in order to justify the critical need for media archaeology. He offers a cartographic genealogy of the field and at the same time illustrates a topographic historicism of its constituent elements, thereby proposing an alternative model of thinking about media objects and histories as interrelated. As a spatial praxis, then, his cartographic of old and new media is incredibly helpful for understanding and talking about media history as networked rather than linear.

To say it plainly: the critical value of alternative models and subsequent narratives of media history as spatially metaphorized examinations of dynamicism and movement among media, historical and sociocultural circumstances, disciplines, and so forth, is that they offer the

potential to reconstruct our historic and historical understandings of the polarized relationship between "old" and "new" media, and thus, a way to critique a discourse of newness. In this vein, Parikka offers his temporal and spatial approach to understanding media that he describes in the language of an archaeological dig: "media archaeology sees media cultures as sedimented and layered, a fold of time and materiality where the past might be suddenly discovered anew, and the new technologies grow obsolete increasingly fast" (3). Inherent in media archaeology is the perspective that through a historically charged excavation, how we situate media technologies is subject to amendment—and it is this potential for reflection and reevaluation that makes media archaeology an exciting and challenging field of research relative to determinist technological narratives. The condition of dynamicism could perhaps be identified as a defining characteristic for media archaeology, particularly in its quality of dynamic movement out of which emerges its archaeological analysis.

As part of this movement, Parikka's argument about the historical perspective in media archaeology is that we not start our analysis from the past or present, but "from the entanglement of past and present, and accept the complexity this decision brings with it to any analysis of modern media culture" (5). The collision and potential difference that is offered is the slippage of two sheets of sediment, whereby media archaeology becomes the "digging into the background reasons why a certain object, statement, discourse or, for instance in our case, media apparatus or use habit is able to be born and be picked up and sustain itself in a cultural situation" (6). In this act of constant digging, the dynamic of media archaeology is always prefaced by the fact that its analysis begins and exists through a critical vantage point that is in motion.

To see this critical vantage point of media archaeology in action, Parikka points to Huhtamo's topoi theory, which looks at recurring motifs in different social, cultural, political,

and economic areas as "more general cultural phenomena" (Parikka 11). Paying homage to Noël Burch's aphorism, Huhtamo's approach takes the position that "the already known is just as essential as determining how it [that is, media culture] embodies and promotes the never before seen" (Huhtamo and Parikka 14). By exploring the "already known" of media, their established historical and sociocultural trajectories and circumstances, Huhtamo emphasizes the significance of older media as reflective points that allow us to constantly compare older and newer media and thus understand the ways in which it indeed "could have been otherwise."

It is important to note that part of what frames Parikka's cartographic historicism is his merger of the two genealogies of media archaeology. Media archaeology is informed by both Anglo-American and German media schools, the former based on Michel Foucault's archaeological study as "a methodology for excavating *conditions of existence*" (Parikka 6; original emphasis). The latter was established by pioneers such as Friedrich Kittler, who "demand[ed] a more media technological understanding of such archaeological work: such conditions of existence not only are discursive, or institutional, but relate to media networks" (Parikka 6). The technological contextualization offered by Kittler's Discourse Network theory complements media archaeology's Foucauldian approach to historically specific analysis; indeed, Geoffrey Winthrop-Young describes Kittler as "technologizing" and "extending" Foucault (*Kittler and the Media* 59).

We can say that, in particular, Kittler picks up where Foucault left off with the archive by examining the introduction of technological forms of inscription—that is, in terms of technological forms of recording, in which Foucault arguably had little interest (*Kittler and the Media* 59). Kittler explores inscription through the archive and through the impact of mechanical recording devices. In his inquiry into the recording of history in the archive, he holds that history

is made of words, as all events could only be recorded in words, and "this is why anything that ever happened ended up in libraries" ("Gramophone, Film, Typewriter" 35). He is not ignorant, however, of the fact that *winners write history,* as this is precisely the reason he gives for Foucault's holding "suspicion that all power comes from archives" (35). In the historical record, representation is passed as truth, and "truth" holds power in its historical status. Kittler's observation that "oral history confronts the writing monopoly of the historians" suggests that what counts as "history"—as the accepted reality of a specific time in the past or present—is largely determined by the dominant storage medium of its age (36). In other words, media do not only determine the conception of history assumed by the media historian; they determine the foundations of epistemological categories of the real, of representation, transparency, truth, and so forth.

Against the historical singularity of media and a singular historical "truth," my framework of a media ecology as an alternative approach to media history and media relations functions in the key of "it could have been otherwise." I am particularly critical of how the discourse of newness presents one media system as dominant out of inevitability, hegemonically occupying the position of a gravitational centre—as being that which is "new." Everything is comparatively shaped around its dominant pull, ascribing to this central media system a quality of superseding agency, that today, is allotted to digital media. Yes, digital media are significant, but media archaeologists recognize that to call them and treat them as *singularly* dominant too easily feeds into ideas of computer revolution, digital revolution, and multimedia revolution. If we must discuss the influence of digital media, let it not be as part of linear and singular approaches of media history, stories within which media appear as Trojan Horses, infiltrating and conquering (Nerone 256).

Rather than discuss evolutions and revolutions, I propose to use the figure of a media ecology to imagine how multiple media exist in historiocultural and sociohistorical use at once. The spatial configuration of media systems as existing in an ecology allows us to imagine media movements—shifts, interrelations, and negotiations—as etched against a network of media rather than as oriented around a dominant centre. Critical work on media theory remains partial in the task of a complex media history so long as it views digital media in a position of discursive centrality, the power of which always already makes non-new media comparatively old. Drawing from media archaeology, I am thus inspired by Foucauldian counterhistories: the contextualization of histories that are made invisible in the face of more dominant hegemonic practices—in this case, in the face of a discourse of newness.

In discussions of newness as they pertain to technological development and techno-economy, I find critical value in Neil Postman's theory of technopoly, which addresses the reasons and ways in which newer technologies are position of dominance. In particular, he posits that the idea of "newness" in technological development can be made synonymous with truth, progress, and inclusion, deserving all of our attention. If this is the case, it is crucial to develop an examination of: why the "new" is considered powerful; how we decide what counts and does not count as "new"; and what happens to that which we decide is not "new."

In this effort, I turn to the framework of the Foucauldian "heterotopia," a term that literally translates to "other space." In his integral work on discourses of power, Foucault's "Of Other Spaces: Utopias and Heterotopias" (1967) shows that subjectivity is formed through self-comparison with institutions, bodies, objects, and concepts of power. His interest in the heterotopia is as a space in which one can compare oneself; for him, a heterotopia is a space through which dominant institutions can relay and justify their identity. In fact, he argues, any

countering of these institutions leads one to being subjectively Othered and also Othered by those institutions. By not identifying with or having a place in the dominant centre, one is marginalized and understood as cast out into spaces that Foucault shows are manifest in the jail or the mental institution.

Foucault's work on systems of power shows us that histories, whether histories of people or histories of media, are subject to structures of dominance and power.[10] Whichever system takes the position of power is that which gets to define what elements of society and culture are considered true or false, good or bad, in or out, new or old. Foucault's histories of people who do not occupy the sociocultural centre of dominance show that what is not in power *has* no power. It is cast aside and forgotten. He insists, nevertheless, that their counterhistories exist as a sendiment to be unearthed. Media archaeologists, then, roll up their sleeves and pick up magnifying glasses, shifting dust from forgotten and cast away media. What is revealed in this process is that in a determinist media history that practices the discourse of newness, that which is "new" is the dominant centre and that which is "old" is made invisible or is erased.

Media Encounters and Juxtaposition: Towards a Hermeneutics of the Intermedial

As alternative narrative models of media history reveal, the conceptualization of older media as having been made invisible allows us to reflect upon the discourse of newness as the hegemonic act that makes them so. By focusing on shifts to cultural understandings of media and shifts to their unique discursive practices, an older media system becomes a point of comparison for a newer media system within a media ecology, such that between them occurs a negotiation:

[10] To be perfectly clear: I do not equate the systemic oppression of peoples and beings with the cultural obsolescence of media. Rather, I am speaking of Otherness in the same vein as media archaeology's inspiration by Foucauldian counterhistories: as histories that are made invisible in the face of more dominant hegemonic practices—in this case, through a discourse of newness.

an interrelation that occurs dynamically and discursively. Encounters in a media ecology can be understood as always potentially engaging with and among each other, and as contributing to our conversations about them.

It is with this stance that this dissertation seeks to re-examine how we think about, write about, and treat media relations over media history. If older media are to be cast aside, a media ecology allows us to view a newer medium as just one among many existing nodes. Positioned this way, culturally established media systems—and also the "losers" of media history on which media archaeologists may focus—may be imagined and analyzed as engaging with one another on an equal playing field.

The critical takeaway is threefold and summarizes my proposals thus far to re-examine and rethink media. I propose that:

i) Media, in addition to being understood as objects and subjects of history, can also be understood as actions for the ways in which they inscribe history, inscribe each other, and speak to the contexts and conditions of inscription;

ii) Understanding media relations as *encounters* rather than as acts of dominance allows for the significant alterities of media to be maintained and exhibited; and

iii) Media are dynamic (their cultural stakes and statuses ever-changing) and must therefore be understood in a manner of dynamic negotiation with themselves, their histories, and each other.

My objective is to counter the discourse of newness by offering alternative approaches to understanding media interrelations over history such that many media can be pegged against each other. That is, I want to argue that a primary way to avoid approaching stages of technological development in terms of historical singularity is simply to avoid having singular

approaches to media history.

The proposal of encounters between and among media more accurately addresses media relationships as being interactive throughout historiocultural play rather than as polarized as either culturally transparent or culturally obsolete. As a part of the interpretation of these dynamic interrelations, an analysis in movement, the spatial metaphor of a media ecology helps to situate the establishment of media protocols in a way that invokes their incessant negotiation in cultural relevance and transparency (Gitelman 7).

Just as important to the understanding that media are networked in an ecology is the idea that they do not exist singularly through factors of historical introduction, cultural transparency, or cultural practice as media and as texts. In Gitelman's estimation, the presence of media as "new" is an opportunity to re-negotiate the respective contexts of each media system; new media are therefore "less points of epistemic rupture than they are socially embedded sites for the ongoing negotiation of meaning as such" (6). For example, an inquiry into the discourse of newness allows us to explore the ways in which we talk about and represent the difference between "old" and "new" media, revealing the rhetorical construction of a historical split or "amnesia" of the past wherein older media serve as examples and articulations of "pastness" (5).

These potential facets of insight reveal that we need a dynamic understanding of media ecology through which to contextualize media history, media interrelations, and media inscriptions: media simply do not function as only subjects, only objects, or only actions, but as all three at once. In this way, that media archaeologists describe media as participating in dynamic discursivity does not stop at their interrelations, but must also include their contexts. For these reasons, I examine media relations in a way that can account for the various facets of media in history: as subjects, objects, and actions, through which we can theoretically and

discursively reach in and out of—and also comparatively—the ways that we reflect upon and practice the relationships between not "old" and "new" media, but *older* and *newer* media—historically, interactively, and textually.

The examination of several media, media pragmatics, histories, and paradigms at once can evade determinist discourses by avoiding a fixed understanding of media history. A scholarship committed to dynamic negotiation is one that escapes the trap of turning a narrative into a grand(er) narrative—by always being ready to "weigh possible scenarios against each other" (McHale 25). Practicing a dynamic negotiation shapes self-reflexive counterhistories that account for media's being bound up in history, by seeking within them how they tell the story of their own histories. In the framework of media archaeology, dynamic negotiation is thus a methodological approach to understanding media by perpetually rethinking their cultural positions and histories. In the way that media archaeology inquires into the "new" in new media, my aim is to conceptualize "old" media in the way that Foucault traces and *makes space* for counterhistories—not as banished or invisible on the outskirts and away from the centre, but as vibrant nodes of media in conversation.

My focus is to look for points of intersection that reveal media heterogeneity and that consequently shed light on otherwise invisible media. By accounting for the historical, interactive, and textual components of networked media, a media ecology may be imagined as a stage for the dynamics between and among media. In this sense, older media are not seen as passive objects, but rather, as historical subjects in the way that Gitelman describes them, and as acts among media through their encounters with one another. When we talk, write, and think about media history and theory, media can never be separated from other media; they *must* be understood as networked, if only because of how we make meaning through and out of them:

Bolter and Grusin hold that "we cannot even recognize the representational power of a medium except with reference to other media" (65). The dynamic movement of media can thus be understood as occurring as their constant negotiation of media histories, statuses, and representational methods.

And when we deal with media that represent or refer to one another, the negotiation occurs in a friction-filled space—a conceptual space *in between* media, where that which defines their specificities and differences (including their forms, content, and materialities) slip against each other and yield dissonance. These liminal spaces media are *the intermedial*, and they are, I argue, the significant spaces of media comparison through which we can identify and renew medial difference.

To explain further: the term "intermediality" was coined by Dick Higgins in 1965 in an essay called "Intermedia" and was addressed again and re-contextualized in his book *Horizons: The Poetics and Theory of the Intermedia* (1984). In this essay, Higgins defines intermediality as "works which fall conceptually between media that are already known" (52). We might distinguish "the intermedial," then, in terms of his description of these media as "conceptually fused" at the limits or "horizons" that define a medium and its specific characteristics and practices (52).

My approach to intermediality and more specifically to the intermedial is to analyze this space of conceptual fusion in order to understand the motions through which media go through to become intermedial. Higgins describes that the "creation of new media is done by the fusion of old ones"; while the word "new" is not used in the same way as we conceive of new media (he means a separate media), my particular concern is with the idea of fusion for how it risks perpetuating that media, once represented by other media, embody a medial sameness (53).

Recent approaches to intermediality that build on Higgins' work have shown to avoid this risk. For example, Lars Elleström's "The Modalities of Media: A Model for Understanding Intermedial Relations" (2010) offers a nuanced exploration of intermediality in terms of how it is constructed and received through four modalities (the material, sensorial, spatiotemporal, and semiotic), identifying intermediality precisely in terms of difference (15-21). He argues that "media differ partly because of modal dissimilarities and partly because of divergences concerning the qualifying aspects of media[, such that] the conventionality of media borders is mainly a facet of the qualifying aspects" (28).

Irina O. Rajewsky articulates from the first in "Intermediality, Intertextuality, and Remediation: A Literary Perspective on Intermediality" (2005) that Higgins' notion of intermediality serves as a jumping-off point for what is clearly now a more complex field of formal, aesthetic, and textual analysis. It is Rajewsky's approach to intermediality from which my dissertation builds its intermedial framework, not only because she offers an extended conceptualization and specification of the unique facets of intermediality, but also because her focus is on intermediality in literature.

> Her article propose three types of intermediality that articulate various media relations:
>
> i) intermediality as medial transposition: "here the intermedial quality has to do with the way in which a media product comes into being, i.e., with the transformation of a given media product (a text, a film, etc.) or of its substratum into another medium";
>
> ii) intermediality as media combination: "determined by the medial constellation constituting a given media product, which is to say the result or the very real process of combining at least two conventionally distinct media or medial forms of articulation … for this category, intermediality is a communicative-semiotic concept, based on the

combination of at least two medial forms of articulation"; and

iii) intermedial references: "meaning-constitutional strategies that contribute to the media product's overall signification: the media product uses its own media-specific means, either to refer to a specific, individual work produced in another medium … or to refer to a specific medial subsystem (such as a certain film genre) or two another medium *qua* system (*systemreferenz,* 'system reference'). The given product thus constitutes itself partly or wholly *in relation* to the work, system, or subsystem to which it refers" (51-3).

Zeroing in on literary intermediality, Rajewsky investigates the third type of intermediality, intermedial references, for how they practice and occur in "the figurative mode of 'as if'" (55). That is, intermedial references are formed when one medium represents another and then attempts to allow this representation to stand in for the real thing.

An unavoidable comparison can be made between the "as if" quality of intermedial references and the effects of immediacy engendered by orthographic and post-orthographic inscription technologies. What (and where) is the difference, especially when both are acts of writing one medium into another such that the first medium can be received in another representational space, its specificities forgotten? The difference can be arrived at by accounting for Rajewsky's critical perspective on what the intermedial reference signifies through its "as if" quality: its referential "illusion," as she calls it, is not an aesthetic illusion so much as it is an analogy of medium specificities and differences (55). As the main chapters of this dissertation explore, intermedial references function through the inherent differences between media that allow a subject to recognize what medium is being referenced and to then allow themselves to accept the illusion "as if" that medium is present.

Developing my dissertation's approach for a hermeneutics that reads media encounters

both laterally (as a comparative reading of media that highlights their differences) and dynamically (as a negotiation of how these differences influence the media encounter), I concentrate on the intermedial as the conceptual liminal space in which these media encounters occur. I argue that the intermedial is a critical site for interpreting the dynamics of, between, and among media in terms that follow Parikka's own approach: historically contextualized understandings of the developments and practices of media and their inscriptive functions, in combination with a Foucauldian reading of periods of history in continuity and conversation.

As applied to intermedial references, I attempt to identify the tensions, slippages, and dissonances that occur when one medium represents another "as if" it is there. It is important to clarify, then, that my use of the terms "liminality" and "the intermedial" do not primarily refer to two physically separate media or two separate spaces that are fused together: as the intermedial reference exists in one medial space—for instance, through the representation of a photograph in a book, painting, or movie—here, the liminal or intermedial describe the theoretical space wherein a referencing medium passes off a referenced medium in its representational domain, and thus, differences between media risk becoming flattened.

It is this very space in which, as I have articulated, the act of inscription occurs. My re-reading of Kittler's Discourse Network theory that highlights the advent of unique stages of inscriptive functions is grounded upon the ways in which the increased effect(iveness) of immediacy in each stage of inscription comes at the price of weakened material instantiation. The specific material contexts and conditions of a medium are required to fall away, I argue, in order to inscribe one medium into another (a "translation" of that medium into the language of another) and in order for that representation to be received as "the real thing" through immediacy. In this sense, the intermedial is the space in which this attempted inscription occurs,

the space in which media materialities and thus medial differences become erased, and the space in which these acts of inscription and erasure are rendered invisible.

The intermedial is therefore a space that I wish to explode open. As a site of homogeneous collapse, it is the exact site where the dissonance of intermedial references—the potential negotiation between materiality and immediacy—exists as a residue of the act of inscription. Those very things erased or made invisible, in revealing themselves, threaten to destroy the illusions of medial sameness and immediacy.

Therefore, I focus on the intermedial for its potential as a space of re-examining and rethinking media over history as separate, together, and perpetually in conversation. The hermeneutic mode that is thus necessary is one of comparison and juxtaposition, through which we can identify and renew medial difference. In her article "Why Not Compare?" (2011), Susan Stanford Friedman inquires into the purpose of comparison for critical analysis, arriving at the idea that "if the danger of comparing is the potential erasure of the particular and the nonnormative, the danger of not comparing involves the suppression of the general and the theoretical" (756). The value of comparison is that, when practiced in a dynamic way, we are not so focused on the centre of a system and we begin pay attention to the historically shadowed heterotopias—the older, hegemonically decentralized and historioculturally displaced media that cannot be culturally done away with just because another media system has occupied a central cultural position. This is simply because they still exist in historiocultural memory and practice.

As an added complement to comparative reading, the reading of *juxtaposition* sets two or more things apart with enough distance so that they do not overlap, yet in enough proximity that a critical conversation can occur between or among them. Their conversation and respective identities must occur through a negotiation of their differences, and this is what remediation is

missing in its quest for immediacy, as one item is made to be beside itself in order to know what it and its counterpart are.

This dissertation proposes a theoretical method of reading intermedial references and the intermedial that I call a "dynamic media juxtaposition"—a reading that unfolds within a media ecology and that occurs both laterally and dynamically. This approach, applied to the analysis of media encounters, encourages a renewed focus on older media in comparison with newer media for the continued cultural and representational salience of their inscriptive functions; it calls attention to the fact that they have been made "old" only in comparison to seemingly "new" media, and only through a discourse of newness. Made to thus reflect upon media encounters in this way, we may view older media as newer media's antecedents, as that which informs their movement into the future. As a practice for historical consciousness in and over media history, this framework of a dynamic media juxtaposition would ideally enable past, current, and future technological developments to constantly juxtapose and reflect upon themselves vis-à-vis an already existing network of established media. The discursivity that unfolds through dynamicisms between and among media—"travelling," as Huhtamo and Parikka describe, "between discourses and disciplines"—creates a juxtaposition that keeps the past in the present (14). Juxtaposition travels among media, as their representational modes, forms, and traditions are simultaneously highlighted; this way of reading involves a refreshed urgency to recall source.

The ecology model proposed here and the focus on an intermedial hermeneutics, in this sense, are not meant to encourage a scholarly analysis of media relations that dwells, but rather, a way of looking at media through critical *movement*. In this way, we can imagine ourselves suspended above a media ecology, looking down to see cross-connections at play so not to lose ourselves in the current (of information; of the present) that attempts to fix us in a dominant

centre that is historically and representationally singular. This metaphor would urge us to avoid churning forward by forgetting the past. In turn, this way of looking at media recognizes the value of cross-connections for unearthing how the "losers" of media history have been typically "swallowed up" in order to create the illusion of dominant centrality of a media, an idea, a mode of knowledge, or a story about the history of media. A dynamic media juxtaposition can foreground difference, and this lets it intrude on what Liu describes as the tendency of some cultural criticism (such as linear, determinist narratives of media history) "to flatten out all historical difference into the single, politically inert 'difference'" (*The Laws of Cool* 5-6). Following Stanford Friedman's warning, this risk of flattening difference is always present in the act of comparison; yet, to not seek any difference at all only reinforces the grandness of dominant ways of thinking, reading, and writing, and as such, the critical task of heterogeneity is to compare and juxtapose, compare and juxtapose—and to then do it again.

What, When, and How?: Applying the Intermedial Over History

Towards an application of an intermedial hermeneutics against the model of a media ecology, this dissertation focuses on three contemporary print intermedial novels: Jonathan Safran Foer's *Extremely Loud and Incredibly Close* (2003), Steven Hall's *The Raw Shark Texts* (2007), and Mark Z. Danielewski's *House of Leaves* (2001). These novels can be described as intermedial and as possessing intermedial references for the abundance of their representations of media and media technologies, including paper documents, ink, typewriters, telephones, photographs, cameras, film, computers, and visual images. Their intermedial references differ in technique at times, even in the same novel, consisting of visual representations, ekphrasis, onomatopoeia, concrete poetry, untraditional typology, and so on; however, what they have in

common is the representation of other media—a practice that does not necessarily fall under the traditional definition of a print novel.

Owing to their unique representational practices, these novels have been described in a variety of ways, having become popular examples of multimodality, contemporary postmodernism, post-postmodernism, visual poetics, network and database literature, media novels, and the experimental or avant-garde (see Pressman 2006; Hamilton 2008; Nørgaard 2010; Gibbons 2010; Gibbons 2012; Hemmingson 2011; Grønstad 2012; and Punday 2012). It is partially their popularity and negotiation in both scholarly and cultural circles that makes them interesting; in this regard, we can say in a broader sense that these novels' formal and thematic experiments speak to the atmosphere of the contemporary media ecology that must navigate at once visual culture, intertextuality, postmodern poetics and aesthetics, and digitally informed poetics and aesthetics, to name a few influences. Yet, to describe these novels with any one label alone is to restrict their unique agency in such an ecology. In order to arrive at an understanding of this agency, it is worth exploring why older novels published before any cultural influence by digital media may on the one hand be described using similar terminology and even might be qualified as being print intermedial novels, while on the other, they do not serve as primary examples of the current media ecology.

The historical scope of intermediality and the intermedial is not limited to the twenty-first century. Intermedial novels were written in periods of publishing history when the reception of literary intermediality has ranged from permission to celebration. Why, then, do novels such as Laurence Sterne's *Tristram Shandy* (1759), André Breton's *Nadja* (1928), Theresa Hak Kyung Cha's *Dictee* (1982), or Milorad Pavic's *Dictionary of the Khazars* (1984) not belong in my study, when they exhibit an awareness of and experimental play with media and mediations in a

way that can absolutely be described as intermedial?[11]

In fact, older print intermedial novels offer critical insight into their specific historical conditions of inscriptive functions and practices. Future studies of the intermedial and literary intermediality can engage in such analysis, in addition to examining how these older novels saliently serve to compare different historical stages of technological inscription. However, as I describe at the beginning of this chapter, the three novels that I have chosen reveal the implications of specific inscriptive functions, with a focus on how post-orthography has changed current standards of representation. Being novels that were published after the introduction of computational media to the mass public (in Western culture, this was approximately during the early to mid 1990s), they are ideal to trace the particular epistemological shifts that occurred after the cultural establishment of post-orthographic inscription nor to its impact on the contemporary media ecology.

The unique qualities of the current media ecology cannot be understated: its specific representational standards not only encourage but also necessitate a literacy in the overlapping of influences on contemporary cultural texts and on creative literature. The "all-encompassing" screen interface, being a platform that maneuvers and negotiates conditions of texts' production, dissemination, and reception, composites and converges mediated content, shaping a user who is digitally literate in the translation and transferrence of different media and modes of communication.

At this historical moment, then, we see a way of thinking, being, and doing that Alan Liu argues possesses "a logic of connectivity" and that is "expressed geopolitically as *globalism,*

[11] Thank you to Rita Raley for inviting me to expand the rationale of my analytical scope by asking how one would historically and hermeneutically situate Sterne and Cha's works in the context of my proposed intermedial framework.

technologically as *networking,* and artistically as *intertextuality, appropriation, sampling,* and so on" (*Local Transcendence* 2; original emphasis). At this cultural and critical juncture, older and newer technological and cultural forms cannot afford to be analyzed in isolation. They must be understood as collaborative and must thus be analyzed comparatively and dynamically so. The media ecology as such opens up a new avenue and lens through which to study media comparatively, as N. Katherine Hayles and Jessica Pressman call for in "Making, Critique: A Media Framework" (2013). What they call "the comparative media project"

> has become more complex in the last couple of decades. In the new millennium, the media landscape is changing far faster than our institutions, so we now find ourselves in situations where print-born assumptions linger and intermingle with practices such as social media networking, tweeting, hacking, and so on, to create highly diverse and heterogeneous social-technical-economic-political amalgams rife with contradictions and internal inconsistencies. (viii)

What Hayles and Pressman account for in this comparative media project and its media framework is the resolute cultural impact of post-orthographic inscription—the bringing together and networking of media that has become a condition of thinking about media, previously practiced but more recently proliferated through computational devices.

Future work on print intermedial texts in the framework of the intermedial and against a comparative and multi-layered media ecology can be performed so long as there is sensitivity to a text's inscriptive conditions. A post-orthographic study of a modernist novel, for instance, does not follow the intermedial framework I offer if explicit differences are not made between post-orthography and orthography (the inscriptive function and representational standard established in the modern era)—and, for that matter, if differences are not made between how a modernist novel is received by a reader of the early twentieth century versus a reader of the late twentieth or early twenty-first century. In the same way, an orthographic study of a contemporary novel that possesses photographs must consider, for example, the novel's post-orthographic conditions

of meaning making, including the digital reproduction of the photographs or how a digitally literate reader receives and interprets photographs.

Who and Why?: Experimental Literature and Keeping Novels Novel

A question one can ask about the practice of intermedial literature in the history of experimental writing relates to *who* gets to practice this exploratory style. There is something to be said about the fact that all of the novels I have chosen are written by white, English-speaking men living in Western countries. Why did I not use similar novels written by women or women of colour? Towards an answer, it is crucial to observe that there are few female authors of intermedial texts who have reached the level of scholarly and popular recognition as the likes of Safran Foer, Hall, and Danielewski. Nicole Krauss' *History of Love* (2005) was promoted to me by friends and colleagues as the "companion novel" to Safran Foer's *Extremely Loud and Incredibly Close,* in part because Krauss is Safran Foer's real-life companion. I found this label strange, as if Krauss could not be thought of as writing something for herself that stands by itself. Her novel is largely text-based, but includes a page of relational charts and tiny graphic images of books, compasses, and anatomical hearts at the beginning of each chapter that help to thematize that chapter's topic. Jennifer Egan's *A Visit from the Goon Squad* (2010) uses experimental typography to spatially represent its text in tables, boxes, and charts, thereby allowing the reader to visualize various elements of narration and dialogue. A reading of it as an intermedial novel could focus on the imagistic quality of these experiments and on the spatialized representation of acts of speech.[12]

[12] In particular, I am interested in *A Visit from the Goon Squad*'s use of images that resemble Power Point slides, the "window" aesthetic of which can create in the reader a sense of disjuncture between the printed page and the blocked-off squares that it offers. This aesthetic can

One key reason that I focus on the three specific novels of this dissertation is to call attention to the anti-genre of experimental writing itself and its relationship to intermediality. In his explication of intermediality, Dick Higgins associates its original (albeit not sole) practice with the avant-garde, arguing that it is a way of pushing media borders and pushing past media boundaries in order to rethink purist forms of medium classification. While he does not limit intermedial practice to men—indeed, he mentions the painter Alison Knowles and the modernist author Gertrude Stein—it can be argued strongly that in published literature of the past hundred years or so, the tradition of the avant-garde has been based upon an exclusivity that is largely enjoyed by white men, from the writers to the publishers.

The three print intermedial novels examined in this dissertation were chosen precisely because they are popular and receive high praise—that is, precisely in order to speak to the fact that much of this praise is based on the idea that they and their authors are "reinventing" literature. For instance, in May 2015, when Danielewski announced that his new literary project was a 27-volume experimental "novel" called *The Familiar* that would take an entire decade to complete, the magazine *The Atlantic* and the literary website *Literary Hub* ran articles to commend his ambition, with the latter's title being simply, "Did Mark Z. Danielewski Just Reinvent the Novel?" To his credit, *The Familiar* is an amazing feat: Danielewski published the first three volumes in just over a year and each is 880 pages of literature, the typography varying here and there, the pages occasionally peppered with images.

Through such labours (of evident love and possible obsession), these novels and their authors have been framed as channeling and projecting the new avant-garde of the twenty-first

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be compared to the cinematic technique of montage, which has traditions in the aims of early Formalist cinema to bring a spectator's attention to the individual square frames that compose a film strip.

century. And in this sense, they might be seen as the new "Good Ol' Boys" club—as successors to the Foster Wallaces, Franzens, and DeLillos, the Burroughses, Burgesses, and other Beatniks, and the Paris circle of Joyces, Eliots, and Pounds. The recognition of these novels in both scholarly and popular circles sets them up as hot points for a re-examination of literary formal features, aesthetics, and themes in terms of an intermedial hermeneutics. In turn, these novels also serve as entry points for rethinking the history of avant-garde literature, with the prominent question being "Where are the women?"

In this history, with few exceptions of fame, women have had roles as typists, secretaries, editors, friends, muses, and "companions." In the case of Vera Nabokov, they have even been chefs and chauffeurs: Vladimir never learned to drive because he never had to. It is not the place of this specific dissertation to analyze the anti-genre of experimental writing, its economic structures, and its gender politics. That is another project. However, had I had more time, I would have liked to write a fifth chapter focusing on women and e-literature in the later twentieth century: when women either had no money or no avenues to publish what they wanted, including their own experimental literature, they eventually went online.[13]

In the meantime, women such as Nicole Krauss, Jennifer Egan, Anne Carson [see *Nox* (2010) and *Red Doc>* (2013)] and Ali Smith [see *How to be Both* (2014)] continue to practice intermediality in print novels by pushing the boundaries of media, joining older experimental works such as Theresa Hak Kyung Cha's *Dictee* (1982), Lorrie Moore's *Anagrams* (1986), Nicole Brossard's *Mauve Desert* (1990), Gail Scott's *My Paris* (1999), Anne Carson's *Autobiography of Red* (1998), Siri Hustvedt's *What I Loved* (2003), and the avant-garde poems by many female poets. I am also emboldened by the strong presence of women in scholarship on

[13] I would also like to do a comparative reading of Krauss' book with Safran Foer's in order to carve out a space for her individuality.

media and literature, including N. Katherine Hayles, Jessica Pressman, Rita Raley, Marie-Laure Ryan, Kathleen Fitzpatrick, and Alison Gibbons.

Readily do I anticipate the question: *why the novel?* In fact, we could examine graphic novels, celluloid films, series of narrational photographs, or concrete poetry for how they take up or exhibit intermediality and literary intermediality. All of these media forms and genres—including the print novel itself, Jessica Pressman (2009) argues—can be examined for their statuses as "one medium among many" (467). The focus of this dissertation is on the novel because the discourse of newness and the perceived dominance of digital media highlight shifts in aspects of materiality, form, and history in which the novel has an especial relationship and stake. For instance, Pressman argues that the novel as a literary form and genre can be analyzed as "a medium in need of the threat posed by the information revolution in order to remain innovative"; she thus explains the cyclical return of cultural and scholarly texts alike that lament print obsolescence and the death of the book (466).[14] Basing her argument on Mikhail Bakhtin and J. Paul Hunter's work, she holds that "the genre of the novel remains novel only by constantly innovating in relation to its contemporary environment of popular culture and media" (466). The novel as a cultural object has a unique role to play in each media ecology: it exists at once as a sociocultural barometer and as a site of perpetual textual, aesthetic, and literary exploration and development.

It is beneficial to examine similar perspectives on the operations of media as critique.

[14] Studies that explore the possible cultural obsolescence of print texts and print culture in the face of digital media technologies are found in media, cultural, and literary studies, particularly in the areas of print culture, book history, and materialism. Embodying a spectrum of theories and opinions, from the optimistic—Sherman Young's *The Book is Dead, Long Live the Book* (2007)—to the lamenting—Sven Birkerts' *The Gutenberg Elegies* (1994) or Jeff Gomez's *Print is Dead* (2007), this rhetoric may be characterized by its concerning and being concerned over shifts to the print media system that anachronize and make superfluous its uses socially, culturally, economically, ecologically, and politically.

Pierre Bourdieu's theory of literary fields in *The Rules of Art* (1992) describes "the struggle between different groups to claim symbolic capital" in a way that "imagines contemporary culture as a kind of metaphorical field in which individuals take positions and struggle against each other to control power and legitimacy" (Punday 9). We can apply this lens to Kittler's work for how it traces tensions between inscriptive practices through technological advances in various historical periods. When Kittler imagines the future circumstances of technological development, he explores the dynamics of a media ecology that includes computer-based media, or, what he calls "the optical fiber network" that embodies "today's situation" ("Gramophone, Film, Typewriter" 32). Through the optical fiber network, he describes the transference of content from the textual symbolic that is "originally from books" into a transcendent "absolute knowledge," musing that "how that which can no longer be found in any book came about can just barely be recorded in books" (29). And yet, it is in books and literature that Kittler locates an ability to reveal "today's situation" and to show how technology can shape methods of representation and inscription and our techno-economic conditions. Literary narratives have value in shedding light on historically specific epistemologies because their inscriptive functions are embedded in and help to shape the frameworks of those epistemologies.

Also focused on the ability of literature and narratives to speak to the implications of media and technology, Daniel Punday merges Bourdieu's reading of symbolic capital with his own rhetorical approach to understanding media relations—notably, also in terms of the model of a media ecology. Punday explores the applicability of a media ecology model towards power relationships in literary rhetoric. In this effort, he proposes a dually macro- and micro-level analysis of larger-scale systemic media relations and also of the "local conditions in which individual writers operate" (11). Hence, Punday establishes how a literary approach to a media

ecology avoids ideas of dominant systems and tools, single persons and users, and singular media experiences. While Punday expresses interest in providing a further historical dimension to media, it is ultimately out of the scope of his specifically rhetorical lens. Yet, it is this rhetorical focus that allows him to avoid participating in or reinforcing determinist views of media history, as he argues that the potential problem of naturalization and essentialism of the ecology metaphor is "relieved" by the fact that "a media ecology is always a rhetorical construction," itself engaging in dynamic discursivity and analysis (16).

The difference between what Punday and I are doing is that my research takes up a historically grounded approach and a focus on materiality while still engaging in rhetorical analysis. The way that I understand the novel is also related to a networked media ecology, through which we can pose the print novel as a medium and the print intermedial novel as a performance and criticism of media encounters. In my reading of the print intermedial novel this way, I draw from Tabbi and Wutz's crucial argument that "materially distinct media belong to different conceptual orders and can thus be used to critique one another and correct one another's excesses—even if the critique comes from the 'marginal' position that the literary novel has traditionally occupied" (20). And in a culture of representation that encourages media blending, convergence, and referentiality, in which the role of materiality is to cede to the medial sameness thereby engendered, Tabbi and Wutz posit that the novel's "awareness of its own materiality—and a rediscovery of its material basis in print" reveals it "for what it has always been: a powerful instrument for representing its own media multiplicity, and a discursive practice that can help us to locate ourselves within the changing media environment" (8; 24).

Set against this framework, the print novel functions in a media ecology as an example of media encounters ("media multiplicity") that occur and that are grounded through print's

inherently material medium. This materiality and the reader's awareness of it are what distinguish intermedial references in print from remediations of media that evoke immediacy by disregarding materiality. To return to Rajewsky's articulation that the "as if" quality of intermedial references is an analogy of medium specificities and differences, I argue that material and material awareness are major factors and strategic lenses in retaining these specificities and differences, because their erasure enables the illusion that media have fused into sameness and that represented media are present before our eyes. In the novel, the transmission and consumption of content occur in the same space of printed pages, and therefore, materiality cannot be erased from the reader's reception because it is in their very hands. Dissonance then occurs between this materiality and the effect of immediacy.

Reading for Difference and Juxtaposition in the Intermedial

The reason that literary forms such as the novel and literary narratives in general are so interesting in media studies and media history is that each communication medium possesses unique storytelling capabilities based on what Marie-Laure Ryan (2003) calls their "affordances" and "limitations": the boundaries and capabilities of the discursive practices shaped by a medium's form, materiality, and by our cultural literacy in and expectations of their system. Where medial seamlessness and sameness may stamp out these specificities, a focus on the intermedial and subsequently on medial differences that exist in elements such as media materiality show that one medium may represent others without rendering them invisible.

Towards a hermeneutics of print intermedial novels and a way to read their intermedial encounters through dynamic juxtaposition, the lateral and dynamic approaches I have proposed require further contextualization in terms of how to read *literature* in these ways. Here, I turn to

Absjørn Grønstad's (2012) exploration of ekphrasis in terms of intertextuality and intermediality. Ekphrasis, defined as the verbal representation of usually visual images and objects, involves an act of inscription—the act of representation through words—that Grønstad reads in terms of violence (37). Citing Judith Butler's *Excitable Speech* (1997), he describes ekphrasis as a potentially violent inscriptive act in "'its efforts to capture the ineffable and, hence, to destroy it, to seize hold of that which must remain elusive for language to operate as a living thing'" (qtd. in Grønstad 37). The attempt to conceptually "free" an image in its verbal representation, then, "discloses a desire to suppress the image," an effort of attempted mastery and subsequent dissonance that Grønstad describes as the first paradox of intermediality (36).

Applied to my analysis of media representations for how they foster the immediacy of a medium's representation and a medial sameness, Grønstad's first paradox of intermediality rings true for how it addresses the endeavour of a representation to seize and destroy an original medium and its materiality by enveloping it. I align my hermeneutic lens with his proposal for a critical gesture "to speak and to signify with the visual rather than for it, a method that does not even try to translate the images into words [or into other symbolic systems of meaning] but is able to generate new meanings and to arrive at a new understanding of the visual text by self-reflexively theorizing its own responses to it" (35).

Grønstad thus draws from Julia Kristeva's perspective of hospitality in intertextuality. In Kristeva's study of the intertext, a text acts as a host to guest quotations, and quoted text is not treated as an object, but as "a ripple of subjectivity in an intersubjective performance"—an unfolding act rather than an honorary object (Grønstad 38). His use of Kristeva's critical approach to describe ekphrasis also holds for intermediality in a larger context. By thinking of the incorporation of one medium to another as a friction in the process of representation, it is

possible to envision ways of preventing the possession of that which is represented and of encouraging heterogeneity in represented images and objects. This approach in turn allows for the text—and for my research, the intermedial text—to function as an ongoing and unfinished work (38). It is unfinished because there remains a residue: a dissonance in representing different inscriptive practices when they make meaning collaboratively, as they call attention to one another in their differences and slippages.

A stark difference between intermediality and intertextuality, then, is that while intertextual references can be represented in the way Kristeva describes of "hosting" guest quotations, the intermedial "hosting" the text of another medium or to "host" another medium in general incorporates the reader's literacy in the referenced medium's inscriptive functions and practices. This is particularly the case for functions and practices that are culturally understood in reference to specific media, as with intermedial representations of photographic images, paintings, and the depiction of sound. Thus, the reader's literacy in medial differences allows for the illusory "as if" quality of intermedial references—an effect that is similar to intertextual knowledge, as both modes of thinking involve the reader's being "in on" the illusion.

It is this quality of difference and illusion, I argue, that is fundamental to a literary approach to intermediality and that might be described as a second paradox of intermediality. It addresses the fact that the "as if" quality of intermedial references functions through the simultaneous recognition and slippage of medial differences. In turn, this medial difference—what Rajewsky identifies as the implied "crossing of media borders"—is what allows for a dissonance and subsequent dynamic media juxtaposition in the print intermedial novel. The inherent materiality of print allows a reader to identify that a medium writes into itself the inscriptive practices of another. A subsequent dissonance occurs between the effect of

immediacy and materiality: the impression of an intermedial reference, the feeling "as if" the referenced medium is present, comes up against the realization that it is a material representation of that medium in the printed pages of a novel. The dynamic juxtaposition between these two ways of seeing, reading, and thinking, reveal that the narrative of a print intermedial novel may unfold through this dissonance. Arguably, the narratives of these novels cannot play out without a slippage between the immediacy of a referenced medium and the novel's materiality, as this incites the reader's back-and-forth negotiation of multiple media forms and their inscriptive practices—a dynamic movement that brings forth narrative meaning.

For these reasons, Grønstad holds that we should be suspicious of linear readings of intermedial texts, which can be dominated by a quality of "reading-for-the-plotness," and which can thus shut out the important and resounding functions of form and materiality specific to represented media (38-9). In this way, although the narrative of print intermedial novels emerges as a beginning-to-end plot, the reader's imaginative construction of the narrative necessitates a semiotic sweeping of a discursively rich ecology of media.

To complement my proposal for a lateral and dynamic reading of media encounters in the print intermedial novel, I develop my focus on laterality through Grønstad's own argument for a lateral (rather than linear) approach to ekphratic hermeneutics. Laterality does not ignore narrative plot, but reads beyond plot by focusing on details and depth "that escap[e] the trust of the narrative: 'cross connections, vectors pointing to a linguistic or cultural context, stylistic tropes, intertextual allusions, etc'" (Peter Caws, qtd. in Grønstad 39). Rajewsky similarly explores how we may inquire into medial differences laterally by reading into their differences—precisely by reading into the space of the intermedial for dissonance. What I take from these scholars' work for my own hermeneutical framework is the proposition that we can read

intermediality laterally and dynamically, we can read into intermediality as media encounters, and we can read these observations in the print intermedial novel.

In the following final three sections of this chapter, I explore the ability of the novel to perform intermediality and to mediate a media ecology in which it has a stake as a medium. First, I examine the practice of intermediality in modernist literature as a mediation of orthographic inscription. Next, I contextualize the discourse of newness as part of a larger logic of progress that engenders the idea of the "exhaustion" of literature. Finally, I discuss literary authors as narratologists.

Modernist Intermediality and the Umbildungsroman

Literary form and genre remain tied to our expectations of what literature does and what it looks like. The specific formal, rhetorical, and generic features associated with the novels that I explore in this dissertation point to a cultural anticipation of shifts in literature (its forms, aesthetics, and poetics) across different cultural ages, which occur as and because literature allows us to ask the most current questions about ourselves relative to our current, past, and future circumstances. Asking questions about ourselves is something that the novel in particular has traditionally done, for example, in the Bildungsroman (the novel of development or of a coming-of-age). Today, many of the questions that we ask about ourselves are framed relative to our intersecting visual, information, and digital cultures.

In an effort to represent the implications of these cultures for how they participate in and reinforce a discourse of newness, contemporary novels ask culturally oriented questions that mediate between historical and futuristic perspectives. These questions in turn give an idea of key rhetorical and poetic thematics of contemporary literature: how have our circumstances in

the past lead to the current situations and conditions, and where might they lead us? What has happened along the way to get us to where we are and where we are headed?[15]

In asking questions that lead us to reflect upon how we think of ourselves, novels that explore media and media relations can be described as what Geoffrey Winthrop-Young calls the "Umbildungsroman" (or, the novel of *reformation*) in "Magic Media Mountain: Technology and the Umbildungsroman" (1997). Differing from the Bildungsroman, a story about formation, this literary form tells the story of reformation through an "*éducation des sens*" (education of the senses)—"the reeducation of taste, smell, sound, and sight and the arrival of new technologies" ("Magic Media Mountain" 49). I distinguish the Umbildungsroman as a narrative plot form rather than a distinct genre, as its objective of reeducation can occur across multiple literary genres.

Winthrop-Young uses the term to describe works of modernist literature that responded to the advent of industrialism, modernity, and orthographic media such as photography and cinema; specifically, he associates the Umbildungsroman with epistemological shifts that occur between the conceptual Discourse Networks 1800 and 1900. His observation that "the culturally dominant status of writing and typography in [Marshall McLuhan's] 'Gutenberg Galaxy' was challenged by an array of postprint media technologies" leads him to describe the consequent introduction of "inauspicous intermedial conditions" for modernist authors ("Magic Media Mountain" 31; *Kittler and the Media* 70).[16] Perhaps the word "inauspicious" is used to illustrate

[15] These questions and my general description of the Umbildungsroman in the next paragraph are derived from a book chapter that I wrote called "The Digital Intensification of Postmodern Poetics," for the collection *The Poetics of Genre in the Contemporary Novel* (2016).
[16] The argument that we are "postprint" once more proliferates through scholarship on a digitally informed "postprint era." For more information, see N. Katherine Hayles and Jessica Pressman's edited collection *Comparative Textual Media: Transforming the Humanities in the Postprint Era* (2013).

the attitude that some people and authors were sure to have at the turn of the twentieth century. In a different light, Tabbi and Wutz articulate the creative potential that resulted from these intermedial possibilities, describing how the liberation of the alphabet as a storage medium allowed for a spatiovisual exploration in cultural texts of the "semiotics of print" (8-9). Complementing their analysis of the formal effects of mechanical technologies and orthographic inscription, Winthrop-Young also speaks to the Umbildungsroman for its role as a barometer of the larger epistemological changes through its literary content and themes: he describes its "obligation" in Discourse Network 1900 "to present something that amounts to a total picture of the world" ("Magic Media Mountain" 31-2).

It is important to note that many modernist writers and texts combined the formal and thematic elements of intermediality and cultural mediation of technological shifts, such that a definition of the Umbildungsroman literary form can include both elements. As such, what we can say about the critical value of the Umbildungsroman is that it mediates cultural shifts and medial differences between inscriptive functions, thus serving as a *readable* part of a media ecology's dynamics and discourses.

The objective of offering a readable part of a media ecology is stressed for its salience by Winthrop-Young, who argues that "while it may not take much to describe streetcars, it takes a lot to describe a world in which streetcars make sense; and it takes a genius to depict faithfully how streetcars are changing the people who use them" (49). Comparing late-Discourse Network 1800 and 1900 writer Thomas Mann to late-Discourse Network 1900 writer William Gibson through their similar protagonists, Winthrop-Young reveals the larger function of the Umbildungsroman narrative: "Both [protagonists] demonstrate that who we are is defined by what we can experience that what we experience depends, in turn, on our media (including our

body); and that literary representations of what our experiences have made us will therefore have to be mindful of changing technological standards" (51). The identified ability of literature, as Kittler proposes, to depict sociocultural shifts caused by change in technological media and the prevalence of literature after Discourse Network 1900 that seeks to do so leads Winthrop-Young to suggest a move away from the Bildungsroman model for novels written about technological shifts. He proposes a move towards the Umbildungsroman as a narrative form and analytical framework that is more historically sensitive and complex—as "a stage on which everything is discussed and nothing decided" (50). The up-in-the-air quality, the juggling of perspectives and experiences of media that is offered by the Umbildungsroman, characterizes the lateral and dynamic reading of intermedial references that I propose to explore.

The "Lost Vocation" of the Novel

As applied to a contemporary media ecology in which digital media and post-orthographic practices abound (in the stage of a Discourse Network 2000), the formal and thematic efforts of the Umbildungsroman are practiced in today's print intermedial novel. Its service as a readable part of the dynamics and discourses of a media ecology is, in these contexts, in part to mediate a discourse of newness. It is worth briefly comparing these mediations to the critical efforts of postmodernist theory, which share a similar problem of a "rhetoric of rupture" (see Linda Hutcheon 1988). What links these efforts is their larger logic of "progress," which subsequently encourages ways of thinking about historical periods as if they occur in linear succession and are partitioned off. Indeed, we might describe the contemporary practices of digital sampling and appropriation as intensified continuations of the "cannibalization" of former texts and styles—a concept that Fredric Jameson (1991) uses to

describe the weakening of historicity in postmodernity (17).

What can we learn from these similarities? How can we benefit from their respective critical breakdown? A theory of postmodernism involves the practice of dynamic discursivity as a critically self-reflexive response to the rhetoric of rupture of postmodernity. Engaging in what Steven Best and Douglas Kellner (1998) describe as a "moderate" postmodern theory, postmodernist scholars such as Linda Hutcheon (1988) and Brian McHale (1992) offer a theoretical and methodological approach to practicing dynamic discursivity by perpetually telling narratives about narratives.

McHale's "Telling Postmodernist Stories" (1992) presents these metanarratives as a discursive technique for avoiding determinist narratives of the cultural epoch of the postmodern. As the narrative of the postmodern rupture or "breakthrough" is characterized by the idea that the "discourse of the past was disrupted at some time by the rise of a scientific, secular, analytic, reductive, referential, logicist … discourse that dominates modernity," it has led to discussions of the status of literature thus; it is similar to Winthrop-Young's argument that the mechanization of the word caused the "inevitable demotion of literature" (McHale 23; Winthrop-Young 62).

To support the need for a dynamic discursivity as part of a discussion about a discourse of newness and alternative narrative models of media history, we should examine the cultural "demotion" of literature as caused by a shift to inscriptive functions. This proposed demotion potentially throws into question the function of literary narratives, especially in the form of the novel, as tools for historiocultural representation and critical mediation. Drawing from Mary McCarthy's *Ideas and the Novel* (1980), Punday questions if it is still possible to write novels today, as "'the novel, with its common sense, is of all forms the least adapted to encompass the modern world, whose leading characteristic is reality'" (qtd. in Punday 32). Direct comparisons

can be made to discussions of the demise of the novel, including John Barth's *The Literature of Exhaustion* (1974) and Louis Rubin's *The Curious Death of the Novel* (1966). McCarthy extends both works by arguing that the arguable anachronicity of the novel is not an issue of exhaustion or even necessarily economy, but the novel's *lost vocation:* "we have lost our sense of why we need novelists" (32).

The vocation of the novel has an inherent problem in its task of classification, as there are expected limitations that are used in order to fit a text into the category of "the novel" (Punday 33). In particular, Punday explains that we understand the novel to have what he describes as a "gossipy" or "noisy" quality—what I would clarify as the novel's openly explorative nature that grants it a function as a cultural barometer—that is present "as a means of getting to truths" (31). "Truth" here must be understood as having the same status and function as modes of knowledge in epistemology: they are not absolute so much as they are, like models of history, socially constructed and perpetuated, and thus always already subject to critical revisiting and reframing. One way McHale demonstrates this is by revising ideas of the "exhaustion" of literature, a narrative of literary history that, in McHale's estimation, also risks exhausting "certain basic conventions of fiction at the same time that it literally exhausts the possibilities of a closed field" (28). As such, he proposes to draw from Dick Higgins' cognitivist framework for discussing cultural shifts in meaning, self-reflection, and ontological understanding.

The cognitivist narrative describes modernist artists as being "preoccupied with the process of cognition," the objects of which include imagism, objectivism, and Bauhaus aesthetics, and the subjects of which involves the representation of the self and identity via expressionism, cubism, Freud, Beat poetry, and at an extreme, existentialism (McHale 32). By the late 1950s, the story of "cognitivism reaches its climax and crisis," giving way to

postcognitivism (32). The epistemological questions that are tied to each cognitive age are grounded in ideas of selfhood in imaginary ontologies, with the cognitive questions being "How can I interpret this world of which I am part? And what am I in it?" and postcognitive questions being "Which world is this? What is to be done in it? Which of my selves is to do it?" (32). It is this shift in questions of identity and imaginary ontology that seem fundamentally tied to the issue of the contemporary novel's lost vocation, particularly as the novel today, Punday argues, is tasked with juggling at once in its content and form: an issue of genre limitations, an issue of the play and push of media limits, and an issue with a fragmented sense of history and I would add of information (32).

Authors as Narratologists

Part of the demotion or displacement of the novel is arguably due to the shift in analytical and creative focus from the novel form to its narrative content. In fact, it appears to be the weakening of material instantiation over the historical stages of inscription technologies that partially allows for this abstraction. The materiality of text forms such as the novel are not *of focus* on the same level—that is, the level of reception or consumption—as their narrative content, risking what Punday calls the presentation of a "universality" for narrative that "pulls the novel out of history" (35).

Punday's concern, then, is to focus on how since the early 1970s the theory of the novel has been displaced by the arguably Western theory of narrative (35). He notes that the critical analysis of this displacement attempts to rediscover the novel's vocation, particularly through the observation that novelists "have become narratologists … because their fiction holds the story of how to tell stories" (37). Narratology as such becomes a framework through which to highlight

the significance of and cultural investment in understanding stories and the act of storytelling: stories contain epistemological insight into how we make sociocultural meaning. Punday's analysis of these narratological efforts seems to be based on the idea of a dynamic discursivity as well, revisiting and rethinking of the novel as a cultural object as a criticism of and response to the contemporary media moment—a moment in which the novel is thought of as bearing what McHale calls a "used-upness" (McHale 26).

Vis-à-vis discussion of the novel's lost vocation, *authors as narratologists* begin to respond by writing stories about media and mediations; that is, by examining and demonstrating the potency for stories to tell us how stories are told today, and at the same time, by negotiating different media's inscriptive functions for how they influence the rhetoric and poetics of the act of storytelling. This is possible because, as Patrick O'Neill says, "'all narratives are a form of semiotic game'" (qtd. in Punday 37).[17] In the case of intermedial texts, the friction is found in the limits of media—the definitive boundaries of media that are parameterized by their inscriptive affordances and limitations, and by our cultural literacy in and expectations of these parameters of representation. Part of this game of representation in intermedial texts involves the illusory quality of media references, the agreed upon participation to be "in on" the intermedial reference "as if" it is the real thing, while at the same time necessarily "in on" the imaginary ontologies that are presented and mediated by the narrative.

Wayne Booth's The Rhetoric of Fiction (1961) describes a writer-reader "agreement" that occurs when a fictional ontology is accepted as reality (Punday 33). That is to say: the way that we write and read narrative is to enter into an agreement of accepting the semiotic game to

[17] The description of semiotic games may be compared to Jean-François Lyotard's (1979) description of "language games" that occur as a hegemonically discursive method of evaluating "good" and "bad" utterances as constituting one's belonging to a society (20).

be temporarily true—the construction of fictional ontologies thus occurs through a form of media, whether that takes the form of text-based language, photographs, cinema, or the digital screen (33). Insofar as the inscriptive functions and practices of different media allow for the narrative construction of imaginary ontologies that are specific to that medium's affordances and limitations, the tie of these practices to historically contextualized inscriptive functions allows the main chapters of this dissertation to examine, compare, and reflect upon different inscriptive media for two important components. First, for the notions of their "newness" or "oldness" in cultural weight and legitimacy, and second, for their overarching inscriptive functions that ultimately define their representational modes and methods: as text-based and symbolic, orthographic in present absence, or post-orthographic in their virtuality.

As the following chapters will discuss, the print intermedial novel involves the reader's agreement to negotiate both the intermedial representation of inscriptive functions and the imaginary ontologies of a narrative. Joining in on the game, my dissertation explores print intermedial novels in a way that reconfigures the relationship between media over history: while media and their inscriptive functions are historically shaped, their continued used and representation in cultural texts such as the novels I examine shows that they are not historically bound, thus resisting the idea of their being swallowed up by "new" digital media or the idea that they are less culturally legitimate. Media, whether digital or predigital, continue to persist through cultural history, memory, and reflexive practice.

Chapter 2: In Between Material Paper and Orthographic Media

This chapter begins my dissertation's hermeneutic inquiry into the function of intermedial references in contemporary print novels. I focus on the dissonance between the material paper of the print novel and its representation of orthographic immediacy, that is, the illusory presence of recorded content that allows it to stand in for an absent material referent, and orthographic inscription, that is, the act of recording that allows for this immediacy and that weakens the reader's awareness of materiality in doing so.

Arguing that intermedial references must carry the inscriptive functions and practices of the media that they represent, I examine Jonathan Safran Foer's *Extremely Loud and Incredibly Close* (2005), a print novel in which letters, pages of paper, notebooks, and photographs abound. An intermedial hermeneutic analysis of the novel shows that its representation of orthography is not limited to its intermittent use of orthographic media such as photographs. The novel also practices orthographic inscription. By this I mean that its intermedial references, including actual images of paper, have the effect of producing orthographic immediacy for the reader; they produce an illusory presence of the media objects that they represent. As this effect occurs through the use of the novel's material paper, I explore the reader's sense of dissonance between the paper's materiality and the intermedial references to orthography. This chapter shows that analyzing this dissonance offers insight into the relationship between materiality and orthographic immediacy for the liminal space of their dynamic inscription, in turn revealing the function of the novel's materiality to restore material awareness.

Intermediality in *Extremely Loud and Incredibly Close*

Extremely Loud and Incredibly Close is a novel about trauma and unrepresentability

across generations. There are two main narrators and protagonists: Thomas Schell Sr. (henceforth referred to as Thomas) and his grandson Oskar Schell. For most of the novel, neither character is aware of their relation to the other. During the Second World War, a young Thomas had lived in Dresden, Germany. He had intended to marry Anna, with whom he imagined his future home and children, but soon after learning that Anna is pregnant, Dresden is bombed and Anna is killed. Thomas survives and moves to New York City, where, in a slow degradation of words, he becomes mute; the first word he cannot say is "Anna." He comes to rely upon notebooks (called "daybooks") to communicate on a daily basis, though he is also portrayed as using cameras, telephones, typewriters, and handwritten letters to communicate. Thomas ends up marrying Anna's young sister, another survivor, and the two cease to use German. One of his rules for their marriage is that there will be "no children," and when his wife secretly becomes pregnant, Thomas leaves her and moves back to Dresden. Decades later, he learns that his child, a son named Thomas Jr., has died in the 9/11 attacks, so he finally returns to New York City at the start of the novel.

Oskar is nine-years-old and a clever, creative, and loquacious narrator. The novel begins just after his father Thomas Jr. has died and he discovers a key in an envelope in his father's belongings intended for someone named Black. As his father used to set up scavenger hunts for him, Oskar assumes he has left this key as a final scavenger hunt. He sets out on a mission across the five boroughs of New York City to find the mysterious person named Black, documenting his progress in a journal. Along the way, he encounters an old, mute man who has moved into the spare bedroom of his grandmother's apartment and who joins him in the adventure.

Serving to unite Thomas' daybooks with Oskar's journal, *Extremely Loud and Incredibly Close* offers a non-linear representation of each character's notebook and its contents, along with

visual depictions of other objects and sights that each character encounters. For Thomas, the novel serves as a representation of his daybooks, such that his photographs appear sporadically as "inserts" that are printed onto the pages. In turn, much of the novel's use of prose in Oskar's narration can be assumed to be the contents of his daily journaling. The novel also represents the photographs of people that Oskar meets and things he sees as inserts and images on its printed pages. In viewing many of these references in conjunction with the daybooks and journal in which they appear, *Extremely Loud and Incredibly Close* creates the illusion that the reader is holding the letters, pages of paper, notebooks, or photographs mentioned by the characters; in some cases, the reader may even imagine that they are the same documents.[18]

Intermedial References and Material Paper

Through the illusion of media representations' presence, the novel utilizes what Irina O. Rajewsky (2005) calls "intermedial references" to multiple media—not the bringing of separate media together to constitute a new whole, but the reference of one medium by another. Intermedial references differ from digital forms of intermedial convergence because they do not composite separate media into the same representational format, only into the same representational space and only through figurative reference.

Rajewsky describes a number of different configurations of intermediality: intermediality as medial transposition, intermediality through media combination, and intermedial references (51-3). The intermedial representations of *Extremely Loud and Incredibly Close* belong to the

[18] There are many other media references in Safran Foer's novel that could be explored in terms of their intermedial representations of media systems: for example, the telephone passage where numerical code has semantic meaning, or the representation of breaks in a recorded audio message as fragmented words on a page. Here, I am specifically looking at the illusory immediacy of inscriptive media that are visual and visualized—specifically paper and photographs.

third category. Rajewsky delineates this type of intermediality as

> meaning-constitutional strategies that contribute to the media product's overall signification: the media product uses its own media-specific means, either to refer to a specific, individual work produced in another medium … or to refer to a specific medial subsystem (such as a certain film genre) or to another medium *qua* system (*systemreferenz,* 'system reference'). The given product thus constitutes itself partly or wholly *in relation* to the work, system, or subsystem to which it refers. (52-3; original emphasis)

She thus highlights that it is not necessary for a medium to be present in order for it to be evoked. Except through compositing when media forms converge, the bringing together of media through representation remains at a figurative level. This is because "a given media production cannot *use* or genuinely *reproduce* elements or structures of a different medial system through its own media-specific means; it can only *evoke* or *imitate* them. Consequently, an intermedial reference can only generate an *illusion* of another medium's specific practices" (55; original emphasis).

The specific illusions evoked in *Extremely Loud and Incredibly Close* as a novel of intermedial references are worthy of further exploration; through them, we can identify the effect of intermedial references to incite an illusory experience in reading. The function of materiality in the novel, specifically through its inherent material medium of paper, lends its intermedial references a tangible experience that is aligned with the illusion of the media and media practices that it evokes. Especially in the case of intermedial references to paper, images, and photographs, with which the reader can associate a certain tactile engagement, the visual illusion of their representation is coupled with their power to incite an affective experience of the evoked media form. Paper and celluloid photographs are material items that the reader can hold and touch; they have weight and texture, just like the pages of a bound book. Building on Rajewsky's description of the intermedial reference illusion in "the figurative mode of the 'as if'" (55), the

representation of these media on the pages of the novel results in a specific illusory experience for the reader: the illusion that they are holding letters, pages of paper, notebooks, or photographs as described by the characters—or even the very same letters, pages, notebooks, or photographs. In this way, the novel offers a virtual sense of materiality by association of the haptic and affective experience of interacting with paper.

The Intermedial: Reading Beyond "Print versus Digital"

Previous readings of *Extremely Loud and Incredibly Close* identify its references to textual, visual, and digital media in terms of multimodality (see Nørgaard 2010; Gibbons 2012), visual poetics (see Grønstad 2012), and digital textuality (see N. Katherine Hayles 2008). Overwhelmingly, they frame this novel in terms of its stakes in print culture and what print novels can do: print can be multimodal, print can be visual, and print can imitate digital textuality and intensify print characteristics. While these observations are certainly accurate, they also limit our perspective of media modes and systems as distinct, isolated, or polarized. A further examination of these discussions relative to their mediation of shifts in literary and textual representation shows that a more dynamic understanding of media representation and interrelation is needed.

Of note in discussions of *Extremely Loud and Incredibly Close*'s stake in print is N. Katherine Hayles' "The Future of Literature: Print Novels and the Mark of the Digital" (2008), in which she highlights the novel's relationship between print and the changed conditions of textuality in a digital age. She observes that recent print novels both acknowledge their positions in print *and* reproduce digital textuality and practices on their printed pages (161). Hayles argues that the cultural dominance of digital textuality—including the visual layering of text,

multimodality, the illusory separation of hardware and software, and fractured temporality—causes the novel to "respon[d] to the predations of computerization with bursts of anxious creativity" ("The Future of Literature" 163-5). She holds that this anxiety of language, media, text, and textuality results in a doubled response of the novel to *imitate* digital textuality by simulating its elements with similar print methods and to concurrently *intensify* traditional print devices (162).[19] Hayles' theory of a doubled response to the cultural dominance of digital media and its representational practices is similar to Kathleen Fitzpatrick's (2002; 2006) delineation of an "anxiety of obsolescence," through which she describes a cultural phenomenon of concern over the dominance of electronic and digital technologies. She specifically focuses on the representation of the tensions between computers and writers in literary fiction and non-fiction, with the conclusion that the writer's "concern about the death of print is the production and distribution of more print" ("The Exhaustion of Literature" 522-3). Through the response, Hayles' and Fitzpatrick's respective analyses show, print novels mediate the anxiety of print culture that is felt by print culture, authors, texts, and scholars of the arguably increasingly inferior cultural role played by print, and of the obsolescence that is thus indicated.

I do not disagree that print culture, authors, texts, and scholars have something to say about the continued cultural relevance of print. However, we may need to think bigger than just "print versus digital." The relationship between print and digital cultures has already been examined in the fields of media theory, cultural studies, and literary criticism in terms of juxtaposition and cultural dominance, spurring corresponding theories of a digital revolution. To intellectually treat digital and print media systems as separate or polarized is limiting of print at best by not accounting for paradigms, practices, texts, and textualities of print culture that remain

[19] This second response supports Jessica Pressman's (2009) claim of the resilience of "bookishness"; see Chapter 3.

prevalent, and is technologically determinist at worst by reinforcing beliefs of the "newness" of digital media that necessarily supercede comparatively "old" media.

In fact, the possibility of print obsolescence is tied to a cultural phenomenon that is larger than what Hayles and Fitzpatrick each set up as the stakes of print and book culture: it regards the practice of media convergence and remediation by digital media that allows the characteristics and practices of predigital media such as print to be remediated and, hence, to be seen as no longer culturally legitimate. We need to rethink the relationship between media in their interrelations, contextualizing them within a larger media ecology in which print is only less culturally legitimate because its aesthetic and formal characteristics can be remediated and thus adopted by digital media. A media ecology is networked, inciting a practice of referentiality that, in a digital sense, is a practice of convergence; hence, media relations do not need to be analyzed as a one-sided representation, but as an *encounter*—as engaged in the processes of discursivity and dynamicism.

Current analyses that frame media through their polarized differences or through their being brought together through convergence and compositing are not sufficient enough to account for the larger influences that digital media and digital culture have had on media encounters—and, in turn, the dynamics of such interactions. A hermeneutics of these encounters would seek to address the ongoing tensions, shifts, and discursivities between and among media rather than to promote theories that one medium necessarily trumps another. Extending current examinations of print texts' reflexivity and response—especially in terms of Hayles' dual imitation/intensification—print intermedial literature can speak to the process of media encounters as one in which materiality (including the materiality of print itself) is ignored, and in which materiality is therefore explored thematically and formally.

Reading for the Liminal of Intermedial References

To explain what I mean, I refer to Hayles' argument that *Extremely Loud and Incredibly Close's* remediations of telephone code and photographs refer directly to their influence by digital textuality, whereby she reads the code as "imitations of the numerical representations of electronic texts" ("The Future of Literature" 165). Hayles' discussion of the novel's imitation of another inscriptive mode of media representation and its intensification of print textuality is quite accurate in this sense. It can also be expanded to think about the other media at work in the novel, how they are also imitated, and why this imitation causes a slippage of representation with and within the materiality of print. From the perspective of a complex and networked media ecology in which media represent and thus encounter each other, the examples analyzed by Hayles can also be examined for their representations of telephony and photography themselves—media with specific representation methods, continued cultural prevalence, and unique influence over the ways in which many digital media were initially designed and in which they have developed. Otherwise, a reading that focuses solely on imitations of digital media limits our understanding of media as perspectives of polarized difference rather than as insights into their dynamicism.

In fact, *Extremely Loud and Incredibly Close* never explicitly evokes or analyzes digital media. Its intermedial references themselves refer to and thereby identify the text's participation in the practice of media connectivity and convergence, which enables and encourages intermedial meaning making. The digital textuality identified by Hayles, the multimodal qualities identified by Nina Nørgaard and Alison Gibbons, and the visual components identified by Absjørn Grønstad, are there in this novel, yes, to demonstrate and reveal "the extent to which a novel can be considered a visual medium" (Grønstad 41). Moreover, the intermedial references

represent and refer to media themselves as being engaged in representational conversation and slippage such that intermedial meaning can be fostered and multiple layers of narrative meaning can emerge.

For instance, the novel deals with themes of trauma, ineffability, temporality, and history—all of which are augmented through the representation of media that serve to record and that therefore serve as artificial memory systems. The use of intermedial references to represent these inscriptive media further heightens the text's foregrounding of these themes, turning them into difficult subjects for the reader and also into points of empathy.

In this sense, how can the novel's use of a flipbook of photographs, for example, be read *without* consideration of media interrelations and encounters? After Oskar returns from the cemetery where he and Thomas bury forty years of written letters in Thomas Jr.'s empty coffin, Oskar flips through his journal in which he has been documenting his scavenger hunt. He looks at the paper and contemplates the World Trade Center, describing the paper in the towers as fuel for the fire: "Maybe if we lived in a paperless society, which lots of scientists say we'll probably live in one day soon, Dad would still be alive. Maybe I shouldn't start a new volume [of journals]" (Safran Foer 325). Grappling with the irreversibility of time and the temporal linearity of the bound book, he rips out a series of pages on which he has stuck sequential photographs of the well-known Falling Man—an anonymous victim of 9/11 whose jump from the North Tower was recorded on video and later depicted in photographs. Oskar reverses the order of the photographs from end to beginning and describes an imagined reversal of the day and night his father dies in which his father goes home instead of to work, goes to bed instead of waking up, wakes up instead of going to sleep, tucks Oskar into bed, and tells him a story. The novel's text ends here, but its last pages consist of the reversed photographs. As the reader flips through

them, the Falling Man appears to float up through the sky.

For the reader, the themes of time, trauma, and ineffability are represented in these intermedial references to photographs—but importantly, the haptic sensation of holding the novel's paper adds to the thematic weight. In particular, there occurs an alignment of perspective between Oskar and the reader that allows for a shared spatiovisual experience of handling the journal pages and flipping through the photographs. Affect is drawn out of this experience that allows the reader to empathetically share Oskar's perspective when the reader imagines that they can feel the paper he feels and see what he sees. The traumatic loss of Oskar's father is felt that much more strongly as a narrative effect and affect through the haptic experience of flipping through "photos" that metaphorize a resurrection.

As this narration and the surmounting of narrative meaning occur through a dynamicism between and among multiple media, a media-informed analysis of the novel that does not focus on the dynamicism of modes of representation in these images is arguably insufficient to address this passage for its augmenting of trauma through material affect and material awareness. It would be a shame, both as a narratological and material reading of the novel, to miss the thematic significance of the flipbook for Oskar and for the reader, the augmentation of the trauma and symbolic resurrection by way of intermediality.

In addition to reading for thematics, the complexity of this passage as an example of literary intermediality requires further investigation of its use of materiality. A hermeneutic approach that accounts for the function of the material paper that carries these photos can offer an understanding of the reader's intermedial experience of this passage as a negotiation of different albeit simultaneous perspectives. There is the feeling that they are physically holding photographs that they and Oskar flip through. This feeling is juxtaposed with the haptic and

material reminder that these are representations of photographs on the printed pages of a novel.[20]

In mapping out these simultaneous perspectives that constitute the reader's engagement with the novel's materiality, we can no longer ignore a space of dynamicism in between media that is salient to an understanding of intermedial references. The hermeneutic question here is as follows: what is *in between* the photo on paper and the affect as if it is a photo? There is slippage between the photographs and the fact that they are represented on paper, a liminal space of dynamicism between these two modes of representation that reveals the function of the photograph. What do the novel's photographs actually achieve, both for Oskar as a form of memory and recording keeping, and for the reader as an intermedial reference with thematic and materially aware functions?

We can better understand the function of these photographs in the framework of what Bolter and Grusin describe as the illusory effect of immediacy—the phenomenological perception of media objects as possessing presence that allows photographs to serve as artificial memory systems and that is similar to the illusion that intermedial references evoke a medium's practices. In the same vein, the reader's negotiation of different media associations becomes an act of flipping back and forth that allows the photograph in *Extremely Loud and Incredibly Close* to be perceived as both paper and photograph; the haptic affect of the photographs is thereby fostered by the effect of immediacy.

One way of explaining this effect relative to intermediality is through Rajewsky's identification of a "medial difference" that is revealed when intermedial references engage in "a

[20] It is also possible that the reader may realize that these represented photos are digitally reproduced and digitally printed. Hayles interprets the use of this flipbook as a marked distinction between storage and performance in digital technologies ("The Future of Literature" 170-1). For more on the separation of production and transmission from content exhibition and performance, see Chapters 3 and 4 on post-orthographic content.

crossing of media borders" (55). I would argue that the condition of medial difference relies on the intermedial reader's prior knowledge of medium specificities, their literacy in and cultural expectations of a media system that allows them to recognize references to other media—to be "in on" the illusory "as if" character of intermedial texts.

In the act of border crossing, it is the specificities of each medium that define the practices that are evoked or crossed over in an intermedial reference and that thus allow for the illusion of evocation; this crossing signals something critical about medium specificities that Rajewsky does not identify explicitly: that *intermedial references must carry the inscriptive functions and practices of the media they represent as a residue.* Rajewsky frames the illusion of media practices' intermedial evocation as a desired effect that arises out of medial difference when an intermedial reference attempts a crossing of media borders. Yet, a consideration of *what* is crossing and *how* it crosses suggests that intermedial references attempt to overcome difference and at the same time evoke that difference in order to function. In this sense, difference is being crossed and also cannot be successful in crossing: Rajewsky points to this paradox by building on Heinz B. Heller's work on "cinematic writing," in that, "using the media-specific means available to him, the author of a text cannot, for example, 'truly' zoom, edit, dissolve images, or make use of the actual techniques and rules of the filmic system [or that, I would add, of the symbolic systems of other media]; by necessity he remains within his own verbal, i.e. textual, medium" (55). Framed in terms of its being a condition and divergence of the intermedial reference, the inscriptive functions and practices of referenced media—including the effect of immediacy that they are able to produce—can be understood as a residue that the intermedial reference must carry, whereby the practices are residual in that they remain in the mode of "as if," not fully one or the other medium.

Importantly, Rajewsky's analysis on cinematic writing also identifies the actual instrument of boundary crossing: the key word here is "*writing*," which is the act that at once catalyzes and hinders the overcoming of medial difference. To extend my use of the term "inscription," then, when an intermedial reference represents another medium, it is writing that medium into another mode of representation—the representational domain of the representing medium. An intermedial hermeneutics allows us to understand this inherent presence of difference and the writing of it into intermedial references as a residue, and to locate this residue in the space between media. In *Extremely Loud and Incredibly Close,* this residue occurs as a dissonance in between material paper and the effect of immediacy that photographs can evoke. As intermedial references carry the practices of the media they represent, we must understand photographs relative to the effect of recording technologies that inscribe objects as if they are present: relative to the photographic camera and its inscriptive practice of *orthography*. A further exploration of orthographic inscription will offer a more complex approach to the novel's use of intermedial references—not just to photographs, but also to other media forms—by thinking about their residue of immediacy that projects a combined thematic and materially aware experience for the reader.

The Act of Orthographic Inscription; the Effect of Orthographic Immediacy

Prior to the Western cultural introduction of exact recording technologies, the *word* was the prime medium of storage, and was a crucial means of both preserving information and of representing the phenomenological experience of the world and its objects. The status of the word changed dramatically by the end of the nineteenth century, as mechanical reproduction and recording technologies were introduced in conjunction with the Industrial Revolution. Walter

Benjamin (1936) points to the cultural establishment of new aesthetic possibilities and aesthetic standards for representation that emerged through the mechanized and standardized practice of exact reproduction. Mary Anne Doane (2002) further traces how this standard is epitomized by mechanical recording technologies such as the photographic and cinematic camera as the practice of exact inscription, allowing what she calls "perfect" reproduction (3-4).

The act of exact inscription is described by Mark B.N. Hansen (2004) as orthography, by which he means "the capacity of various technologies to register the past as past, to inscribe the past in a way that allows for its exact repetition" (603). Literally translated as "straight writing," orthography thus describes the act of writing something of the past such that it can be experienced in the present as a representational record; hence, Roland Barthes frames photography as "a technical medium capable of bringing together reality and the past" (Hansen 603). The faculty of the camera in this sense served to establish orthography as a new inscriptive practice for this age of technological development: the inscriptive practice of representing an object as having presence or immediacy through its recorded content, despite the physical absence of the object. In this way, orthographic inscription removes the condition of presence of a material object as a material referent, allowing the object to be perceived without the contexts or conditions of its materiality. Additionally, the condition of presence of the material apparatus—the camera itself—is also removed, as the photograph is separated from the camera as a recording device. In the case of cinema, the cinematic image is separated from the camera and also from the apparatus of projection, the cinema projector.

In combination, the act of orthographic inscription allows for the effect of an orthographic immediacy, the illusion of the recorded content's presence that allows the content to *stand in* for or substitute an absent material referent. Hansen identifies a key feature of

orthography as this material referent, or what Barthes, in *Camera Lucida* (1980), calls the "necessarily real" object that must be recorded in order for there to be a mechanically reproduced image that constitutes the photograph, and by extension, the cinematic image (Hansen 603). It is interesting that the presence of the material referent is what cinema tries to translate and evoke through orthographic inscription, a materiality that cinema tries to cross into its borders in order for recorded content to evoke its presence.[21]

But in that act of inscription that exists and occurs in the liminal, something is lost in terms of materiality: in writing absent and material referents as if they have presence in another mode of representation, orthographic inscription significantly weakens material awareness at the level of content reception. The removal of the material referent and the material apparatus thus corresponds to the strengthening of the effect of orthographic immediacy for orthographic content. For instance, the cinematic effect of realism relies on the spectator's substitution of recorded content as a signifier of an absent object, through which the spectator can share and even identify with the perspective of the camera's gaze and with movie characters. It is this technique of cinematic realism and its orthographic immediacy that allows the reader of *Extremely Loud and Incredibly Close* to share Oskar's perspective in the flipbook passage that they are holding photographs in their hands, or even the very photographs in Oskar's hands. Yet, the print intermedial novel's use of paper reminds the reader that these are intermedial references, beginning to draw attention back to material awareness through material instantiation by literally putting materiality back in their hands.

[21] The inscription of a characteristic and its phenomenological experience is the act of remediation at work, an act of translation that is likely why Bolter and Grusin say that "all mediation is remediation"—a tongue-in-cheek reference to perception as itself a form of mediation (14).

Reading for Orthographic Absence in the Liminal

As intermedial references carry the inscriptive functions and practices of the media they represent, we can return to the example of the flipbook and the reader's negotiations with its liminality. My earlier question "what is *in between* the photo on paper and the affect as if it is a photo" can therefore be rephrased as "what is *in between* the photo on paper (as an absent material referent) and the affect of it as a photo (the immediacy of its recorded content)? The answer is the act of inscription itself, whereby the liminal—the intermedial—is a theoretical space of the act of inscription in which the paper writes the photo into representation (as an intermedial reference) and the photo writes its absent presence into the intermedial reference (its immediacy). It is salient to note that orthographic inscription possesses a chiastic quality, with the intermedial being the space between them: the effect of immediacy on one side is embedded with the weakening of material instantiation on the other; only the side of immediacy is necessary for the reception of intermedial references as stand-ins for the referenced media and its practices, a process of substitution enabled by the act of inscription. As such, a key characteristic of the residue of orthographic inscription is its liminality of time and space: the division between a material object in the past and its inscription in the present.

Set against this stage (against a media ecology), the function of the liminal is to illuminate the process of inscription whereby a referenced medium brings its practices across "the borders" and the referencing medium carries this residue as the mark of the intermedial reference being neither fully one or the other medium, but both at once. For the reader of a print intermedial novel such as *Extremely Loud and Incredibly Close*, paper heightens the function of the liminal by creating a sense of dissonance between the material paper that is present in the hands of the reader and the effect of orthographic immediacy as requiring the removal of the

presence of material referents and apparatuses. The negotiation between paper and orthography thus incites a slippage of their modes of representation, whereby the inscriptive function of one clashes with that of another to foster their dynamicism and create dissonance in their liminality. The reader therefore undergoes a complex negotiation of this dissonance that occurs laterally (between, across, and within these media) and dynamically (negotiating their dissonance). As I explain in Chapter 1, I call this negotiation a "dynamic media juxtaposition."

An inquiry into how *Extremely Loud and Incredibly Close* creates dissonance in its intermedial references and how a corresponding dynamic media juxtaposition occurs must first be contextualized with an understanding of their narrative function. As narratives are described by Hayles as a temporal "technology" for humans, narratives make meaning in a story by "complicating temporality" (*How We Think* 180; Bal 77). Narratology scholar Mieke Bal explores differences between times that run on different "clocks," distinguishing between "day-to-day" time, "historical time," the eternity-seeming "monumental time," and the more quotidian and performative "micro time" (77-8). A way to further emphasize the weight and thickness of specific moments of time is to consider how the representation of the events of one's life resembles that of different "weights" of literary temporality: how different phrases, sentences, and passages depict the weight of an act or event in a character's experience. An example of thinking of life as a developmental trajectory can be identified in Sigmund Freud's theories of "blocks," "disruptions," and an "incompleteness" in the history of people's lives that affect their mental well being and their sense of self. Freud's work on repression in 1914 describes life events that are trapped in memory (where memory acts as a consciousness of events in one's past), and that continue to burden the present through repetitive symptoms of traumatic repression (149-50).

These descriptions of subjective experiences of time and their representation help to provide insight into the repetitive use of intermedial references to inscriptive media in *Extremely Loud and Incredibly Close*: they demonstrate characters' reliance on documentation and recording as methods through which they re-live and work through the past, and also though which they are able to hold onto an irreconcilable past.

An immigrant and survivor of war who is suffering from post-traumatic stress disorder, Thomas has a skewed sense of time. The chronological events of his life continue: he survives the war, emigrates, and marries. However, his subjective sense of time does not progress, as he lives in the past in the form of a memory. Firstly, he chooses to marry Anna's younger sister as a substitute for Anna. To emphasize his wife's distressing role as a substitute, she is never named in the novel: she is only called "wife," "mother," "grandma," and "Anna's sister." Later, Thomas refuses to have children with her and then runs away to Dresden, the site of his childhood and love with Anna. Framed relative to Bal's idea of different "clocks" of time that are not necessarily linear and Freud's observations on repetition, the temporal standstill of Thomas' life follows that he exhibits patterns of repetition in behaviour, form, and images—demonstrated, for example, by his reusing pages from his daybooks and often asking others "What time is it?" In particular, these patterns can be associated with the symptoms of repetition and remembrance that Freud ascribes to repressed people who have a "block" in their lives.

Paired with this trope of repetition is the novel's theme of unrepresentability. Many characters have difficulty with inscriptive media that serve as artificial memory systems: written journals, answering machines, typewriters, photographs, and so forth. The recurrence of characters' messages never making it to intended receivers is crucial to representing the ineffability of these characters' memories and suffering, and to representing their altered sense of

personal time. The use of inscriptive media as artificial memory systems is augmented into spatiovisual representations of these tools, such that the characters' use of paper as an inscriptive tool is explored in a visual way so that it often resembles images.

Material Paper: Daybooks and Letters

In particular, Thomas has come to rely upon various inscriptive media, specifically paper and photographs, to communicate. Becoming mute after the Second World War, he begins to carry around notebooks (what he calls "daybooks") to write single-lined messages to people for daily tasks. Similar to the experience of sharing Oskar's perspective of the photographs of the flipbook, here, the reader may view the single lines of printed text as if they are looking at Thomas' handwritten words. Nina Nørgaard explores this effect as one that "gives us a sense of how Thomas uses his notebooks and what it might be like to communicate with him" (120). That is, the daybook's appearance is summoned for the reader, framing the novel so that it can be viewed as the daybook, and this effect is heightened by the understanding that these single lines of type stand in for Thomas' own handwriting. In this way, these "daybook pages" function as intermedial references, allowing the reader to view them as representations of physical notebooks and also as the actual pages of Thomas' daybooks.

While one could question whether the daybooks are indeed intermedial references, as they are representations of paper on paper, an inquiry into their representative function reveals them as such. Again, intermedial references work through the process of substituting them for a referenced medium and its inscriptive functions and practices; this substitution is similar to the representation of the daybooks here: while the letter does not truly exist, its imagistic impression of paper and *on* paper stands in for the immediacy of the letter as a specific paper document. A

sense of dissonance occurs in the liminal space of substitution, then, through the novel's materiality. To be specific, the immediacy of Thomas' handwriting and of the images of his daybook as daybook pages may be checked by the simultaneous realization that the text is produced through standardized type that is printed on material paper. This juxtaposition supports Hayles' argument that the daybooks intensify a characteristic specific to print ("The Future of Literature" 169).

Thomas' relationship with paper as a communication tool is complicated by his association with it as a means to inscribe time. Before the war, when he and Anna had begun to discuss their future together, he takes to sending her typewritten letters as a way of imagining the many possibilities of their joint future. The night before the bombing that ends Anna's life, he says, "I typed our last future home," imagining his act of writing manifesting on paper this very home, describing the home instead of the letter as if he is physically keeping in his pocket (Safran Foer 209). The letter's materiality becomes associated with the act of capturing and representing his sense of time. After the war, he comes to associate paper and books with the temporalities of histories, stories, and lives, projecting their use as artificial memory systems through their physical form; for example, he stores his used daybooks in the base of a grandfather clock. Allowing the daybooks to stand in for time itself, they act as units or markers of daily time that he refuses to throw away: he hoards them in his apartment.[22] As Thomas relies on paper as a method of articulation that turns his words into their inscriptive recording, his act of hoarding his daybooks can be read as a means to hold onto his past through their documentation.

By associating recording media as artificial memory systems, the material restrictions of

[22] The word for "diary" in German is *Tagebuch*: literally "daybook."

paper, including an actual lack of paper, become collapsed with Thomas' sense of a lack or absence of time. We see this material restriction in the form of Thomas' letters: every day after leaving his wife, Thomas writes a letter in his daybook to his "unborn child" (and later his "child"), then mails an empty envelope. After he learns that his child, a son named Thomas Jr., is killed in the 9/11 attacks, he writes a postmortem letter. As he runs out of pages in his journal, he interrupts the content of the letter several times, writing mid-sentence, "I'm running out of room…" Thomas begins to feel the infinite, uncontainable weight of the things he has to explain, the acts that he has to apologize for, and the shame that he feels in association: "There won't be enough pages in this book for me to tell you what I need to tell you, I could write smaller, I could slice the pages down their edges to make two pages, I could write over my own writing, but then what?" (276). At the moment he reflects that he is running out of paper, Thomas writes about the memory of hearing his son's voice for the first time in an answering machine message. Recounting the suffering of this experience and lamenting that he will never know his son, the language of the letter thereafter disintegrates. The desperation he feels and the physical constraints of his journal are twofold in the novel, with the typeface becoming increasingly denser, the letters and words printed tighter and tighter as Thomas tries to *make room* and also *have time* to say what he wants to say. He associates the possession of paper with giving him more space, where space represents an expanse of time, a medium through which he can project his need for and also lack of time.

Indeed, he can easily get another daybook to write in, but does not. It is not the lack of paper itself that he finds haunting, but its representation of the absence of time. He has lost time with his child, who is now also lost to him: "I thought about you. What kind of food did you like, what was your favorite song, who was the first girl you kissed, and where, and how, I'm running

out of room, I want an infinitely long blank book and forever, I don't know how much time passed, it didn't matter, I'd lost all of my reasons to keep track" (280). It is interesting to note the increasing lack of punctuation, especially periods, in this passage. Once the pages of his daybook begin to dwindle, the lack of time represented by a lack of space causes Thomas to panic, and his sentence structure collapses as he stops using paragraphs or full sentences, his phrases attempting to charge on towards forever. Insofar as the rhythm and cadence of writing—the temporality of writing as a textually symbolic function—is signified through punctuation, writing without discrete sentences is a writing of unfinished ideas, a writing without closure.

The themes of ineffability and trauma are nuanced with the visual representations of his not having enough paper to write on, and the message of ineffability is doubled through the eventual illegibility of the pages, what Nørgaard calls the parallel between the visual density "by a density of meaning, since Thomas virtually tries to explain and make sense of *everything* in this chapter, and emphasis [that] is provided in that the 'same' thing is conveyed or constructed—through two modes at the same time" (121). Though Nørgaard refers to the technique of multimodality and the modes of the letter as both text and image, her reading can be understood in terms of this passage's complexity of representation, in that the letter has thematic significance that is heighted by visual density.

For the reader, this visual density and its spatialized representation of time are further complicated by the viewing of these pages of the novel as an intermedial reference to a real letter. The spatiovisual treatment of the printed words allows the letter a sense of orthographic immediacy; similar to that of Thomas' daybooks, the imagistic impressions of the letter are allowed to stand in *as if* a real letter is evoked.

It is important to analyze the use of intermediality and materiality to represent Thomas'

letter descending into meaninglessness. As the words are squished more and more tightly, eventually they become illegible as Thomas writes letters on top of letters. The final page of the letter (also the final page of the daybook) is a mess of ink—symbols that are quite as meaningless as the letters upon letters that he wrote to his child but never sent. The illegible meaninglessness and shift of word-based articulation to something visually symbolic denies the reader's access to meaning in a way that echoes the novel's trope of messages that never make it. In the reader's knowing of a history of unsent letters, of Thomas' inability to come to terms with his past, of his shame for his deeds towards his wife and child, and of his struggle with verbal language, the reader can easily make the association that he finds something unspeakable and that he cannot write it. He covers up his shame by writing over it again and again. It is also through this illegibility that the reader's empathy can be evoked in feeling the imagined weight of ink-heavy pages. In combination with the illusory immediacy of the letter, at the same time that the letter descends into meaninglessness, a dissonance ascends in the reader's awareness of the pages as imagistic—as a visual illusion that Hayles suggests by pointing out that these pages were likely composed through Photoshop ("The Future of Literature" 169).

Typewriters and the Inscription of a Life on Paper

The initial apparent meaninglessness of this passage is similar to the typewriter passage, which also utilizes the materiality of the paper to augment the characters' feeling of trauma and suffering by representing it visually. The typewriter had been a tool through which Thomas imagined his future with Anna in the form of love letters, and the paper of the letters became the inscriptive representation of those dreams—documentations of possible lifetimes. Thomas' view of the paper and the typewriter in this way are important to analyzing the typewriter passage.

In the early days of their marriage, Thomas, not wanting his wife to also suffer the trauma of being a war survivor, encourages her to write on his old typewriter: "I thought maybe if she could express herself rather than suffer herself, if she had a way to relieve the burden" (Safran Foer 119). He suggests that if "it's unspeakable—write it!" (124). Thomas' encouragement of his wife to write out her thoughts and feelings suggests that representing writing will help relieve some of the ineffability of her trauma. Yet, his wife also seems to have spatialized her sense of time in terms of the linearity offered by paper and by the idea of linear narrative: After months of typing, one day, his wife proudly presents a stack of paper to Thomas, calling it "My Life," and tells him, "I just made it up to the present moment. Just now. I'm all caught up with myself," articulating her sense of inscribing her life into the paper (120).

The reader flips through several blank pages that act as an intermedial reference to the "two thousand blank pages" Thomas describes in his hands. As with the imagistic impression of his letters, orthographic immediacy occurs here in the reader's haptic engagement with actual blank pages in the novel. While this intermedial device may seem counterproductive for narrative meaning, in fact, the association with material paper makes this meaninglessness full of meaning. In particular, meaninglessness pushes the reader's experience with the linear temporality of narrative as they engage with nonsense on a level of inquiry, having to take time to inquire in order for layers of narrative meaning to emerge. The use of the intermedial reference to a physical document as a thematic function is once again also a function of material awareness: the reader shares the perspective of what Thomas is seeing and also to feel what he is feeling—the emptiness of blank paper figuratively and physically. Subsequently, the reader also shares Thomas' experience as he describes "pick[ing] up the pages and wander[ing] through them, trying to find the one on which she was born, her first love, when she last saw her parents"

(120). Thomas is horrified. He remembers too late that years ago when he had begun to lose the ability to speak, in an act of violence and "revenge against the typewriter and against [himself]" he "had pulled the ribbon from the machine" (124).

The ribbon of ink is described as "one long thread," its linear form and its function as an inscriptive media representing a negative in a double sense: first, there is the negative or impression of photographs in which a material referent is recorded, the absence of which is represented by these very impressions. As photographs store specific moments in the past and their content attempts to offer an immediacy of absent material referents, here, a young Thomas' dreams for a future with Anna occur in specific moments that are inscribed through the impressions of typewriter keys on a ribbon, storing his past through inscription. In this sense, the ribbon represents a second negative—a negation—as it is a record of a life with Anna that was never lived. The typewriter is the medium between him and Anna, the tool through which he had shared these dreams with her; it fails him once when he can no longer communicate with her and fails again when he, lacking words to speak and having his sense of continuous time collapse, can no longer imagine a future for himself. In this dual loss tied to the loss of language, the ribbon must be removed, its memory and inscribed trace acted violently upon. By destroying the machine, Thomas acts in violence against the fact that his future and his past are destroyed: the sections of his life are broken apart and fragmented as his lifeline. The ribbon itself, the inscription (as the next section likens to his photographs of the doorknobs), only represents his inability to return. His life is an exposed photo negative that cannot be used to access the past but that is also useless as a recording medium to document the future. If left in tact, the ribbon would remain a tool of inscription, documentation, language, and continuation—a machine that represents his future. But by pulling the thread of ribbon, he pulls his lifeline, at the same time

destroying the ability for his wife to continue the development of her own life.

Photographs and Narrative Interjection

A final example speaks to Thomas' dependency on inscriptive media as a means to hold onto the past. His obsession with photography and the novel's use of physical photographs as a visual and physical record of lost moments and absent things can be read as a traumatic response to the loss of his home and life during the war. For example, in the beginning of his marriage to Anna's sister, she writes that he had bought the best insurance that promises to preserve their home: "A man from the company came over to take pictures. If anything happened, they would be able to rebuild the apartment again exactly as it was" (Safran Foer 174).

Photography has been seen in Western culture as allowing a preservation of the past. André Bazin, in "The Ontology of the Photographic Image" (1945), discusses a longstanding belief in "the preservation of life by a representation of life," whereby photography, and by extension, the advent of orthographic media, arguably contributed to the goal of preservation and to a larger aspiration towards symbolic immortality (a perpetual presence or immediacy) (166). Bazin discusses the way in which the ancient technique of mummification illustrates attempts at this kind of immortality through preservation and representation, arguing that photography in the age of mechanical recording technologies allowed us to move onto an idealized form of representation, "the creation of an ideal world in the likeness of the real, with its own temporal destiny" (167).

Set against the concurrent horrors of technology—technological warfare that destroys Thomas' home and kills everyone he loves—the idea of preservation through exact inscription becomes a way to figuratively and tangibly rebuild, in ideals, a state of home. In this way, when

Thomas takes pictures of everything in his new home, his wife's observation that "he could have rebuilt the apartment by taping together pictures" highlights the use of physical photos as a means to reconstruct a reality (Safran Foer 175). The photographs are, in this sense, an insurance policy for a moment in time, physically embodying an idea of "home."

In particular, even in his old age, Thomas is obsessed with taking photographs of doorknobs, which he keeps in his daybooks and which thus appear throughout the novel without any context so that the reader feels as if they are flipping through his daybooks. The thematic function of the doorknob photos can be explained by thinking about Thomas' description of the night Dresden was bombed, killing his family and Anna, and destroying his town.[23] Immediately after the bombs fall, Thomas grabs the doorknob of the bomb shelter to get out, but it is so hot that it removes the skin from his hand, burning him as he attempts to resurface from underground and return to his home. When he manages to get home, he finds that "all that remained of our house was a patch of the facade that stubbornly held up the front door" (211). The lone door can be read as a testament to destruction much like a Wailing Wall—a remnant of something that once was and that is no longer accessible. Safran Foer, whose Jewish grandparents survived the Second World War, has used similar imagery in his other books, including physical remnants of destruction as a means to illustrate the presence of absence. The door then stands in place of the house, its very existence acting, similarly to the photographic image, as a trace—the inscription of a lost, destroyed object that recalls that moment in memory.

For Thomas, photos allow him impressions of presence through the past, and doorknobs represent objects and points of liminality between the past and the present, withholding him from

[23] The description of the bombing appears in the novel as the one letter that Thomas succeeds in sending to his son. It is represented in the novel as a document that Thomas Jr. has marked up in red pen and that is, much like his father's postmortem letter, increasingly covered in ink.

returning "home." This temporal liminality is also the chiasmus of orthographic inscription, the line that divides and defines its attempt to write the absent across a border into the present. In this vein, Thomas identifies himself as living in the past: the letters he writes to Thomas Jr. frequently repeat that he is "not there," but instead, "here" in Dresden. In fact, he can never return to the ideas of "home" and "a life with Anna" that Dresden represents, as *that* Dresden changed over time and *that* life never came to be. Thomas can only return to the Dresden and life of his mind, signaling his position as a temporal "here" of ideas and ideals. In this way, Thomas does not live in any real place; he lives in memories, he lives in photographs—moments in time preserved and made static through representation. The forcefulness of absence—of material objects, of moments in time—thus relies on the printing of photographs on paper in order serve a double role: to reinforce the illusion for the reader that they are looking at Thomas' daybooks, and to illustrate the division in time between the past and the present as one that also exists in the act of orthographic inscription.

In particular, the novel's recurring tropes of liminality constantly refer to the function of the doorknobs. In the early years of their marriage, Thomas and his wife designate the guest room of the apartment as a space of privacy, calling it a "Nothing" space within which a person is allowed to "not exist": "the side of the door that faced the guest room was Nothing, the side that faced the hallway was Something, the knob that connected them was neither Something nor Nothing" (110). Here, the doorknob is an object of both temporal and spatial liminality, where "Nothing" represents the characters' sense of non-existence. As such, the act of living as *being over time* is also an act of *being in space*; by being in a Nothing space, by not being anywhere, one does not theoretically live through a linear flow of time. This liminality should be framed relative to another recurring trope of liminality in the novel, the "Possible" versus the

"Impossible"—words that Thomas often repeats to describe what can and cannot be acceptable to him after the war. What is impossible, he explains in one of his daybook entries, is both the continuation of his life through children and the act of articulating to his wife the horrors that stem this continuation (216). A comparison of these liminalities follows that "Something" and "Possible" are aligned, as Something spaces represent places wherein a person can "exist," where they are subject to the laws of linear time. In contrast, the alignment of linear time in accordance with a linear sense of life and linear narrative is impossible in Nothing spaces.

As these spatiotemporal liminalities are echoed through photographs of doorknobs, their appearance as individual pages in the book that physically divide different characters' narrations requires further contemplation for how this division interjects the reader's experience of a linear flow of narrative. Much like the blank pages from the typewriter, the photographs' lack of context at first seems to incite a narrative meaningless; however, the inscriptive documentation of characters' experiences of time (being trapped in it, reflecting on it, undergoing it) allows each photograph to serve as a moment of hermeneutic reflection on the function of orthographic media for narrative meaning.

On the subject of narrative flow, there appears to be a liminality between narrative function and intermedial hermeneutics. Insofar as the experience of reading traditional linear narrative is based on an imaginary flow of events that form in the reader's mind, narratives that practice this form of presentation, even if they are not orthographic, go against the task of re-inserting and renewing material awareness for the reader. Before movies, the ability for stories to allow a reader to lose themselves in the imaginary world of the story has been an attribute that made them objects of leisure and entertainment.

Yet, even in the case of linear literary narratives, the representation of subjective

experiences of time can call for the use of different techniques to mediate and evoke temporal weight. And though mechanical devices such as sequential ordering, rhythm, and frequency can allow a reader to feel the weights and tensions of a character's experience, the representation of photographs, even in words, has been described for its effectiveness as a narrative device. Karl Benesch argues, for example, that descriptions of photographs in Franz Kafka's unfinished novel *Amerika* provoke a contemplative narrative effect on the reader. After moving to America, Kafka's protagonist Karl tries to preserve a photo of his parents at home in Prague, and the text's description of the photo focuses on the inaccessibility of capturing the "life" quality of his father: "How could a photograph convey with such complete certainty the secret feelings of the person shown in it?" (Kafka, qtd. in Benesch 86). Benesch answers that the photo "directly leads us from the realm of visuality to the techniques of writing and poetic imagination: the picture triggers an interpretive, poetic act," where Karl's contemplation with the remediated photo is a reflexive and emotional experience shared by the reader (86).

To take Benesch's reading a step further, then: while a breaking off from the realm of the visual can highlight the representational skill of the textual symbolic, arguably, the intermedial inclusion of the very photo as a narrative accompaniment heightens the reader's experience of temporal weight and tension through a visual and haptic encounter with an image. Certainly, it has an effect of drawing out narrative meaning (to add to verbal and figuratively visual techniques) in terms of orthographic representations that a Kafka-era reader would have found, while possibly not capturing the "life" quality, still highly affective.

The photographs of doorknobs, and additionally, the photographs that Oskar includes in his journal, arguably incite a similar reflexive and emotional reading as a weighted and tense text-based passage. However, in order to represent the skewed sense of personal time possessed

by the characters of *Extremely Loud and Incredibly Close*, the novel's non-linearity and material methods of narrative interjection are absolutely pertinent. Arguably, the narrative continuity of the novel only occurs in the reader's imagination, as its frequent use of intermedial references, often inciting narrative meaninglessness, also briefly suspends narrative flow. In particular, the photographs prompt a series of reflexive questions for the reader that spur their hermeneutic inquiry: What *moment* does this photo refer to? What idea or feeling does it reference that has been expressed by one or some of the characters? When one encounters a textual description of a photograph, which photo and narrative moment is it connected to? Having to make sense of each physical photograph vis-à-vis its narrative context is a constant negotiation between images and words. The reader is thereby required to dynamically juxtapose what the photos mean and how they function through the representation of absence, moving through different layers of time in the narrative and in between different modes of representation at once.

Put another way: the effect of immediacy of these photographs is such that a reader can view them as inserts in Thomas' daybooks, but as they lack any description or direct context, they become physical liminalities in the narrative, intermedial references that themselves create narrative dissonance. This interjection can be likened to the use of montage in cinema to create a narrative caesura in the illusion of cinematic flow, and in turn, reading into the caesura as temporal and spatial gap serves as a spectator's reminder of the cinematic apparatus, the orthographic camera, and the material referent being substituted.

Similarly, through the photograph's dissonance as caused by their physical interruption of the narrative and their reference to photographic immediacy, they enable the reader to juxtapose their material presence with their thematic representation of absence. The liminal in this sense involves a pause and interjection in the reading process, an opportunity to dynamically juxtapose

and, hence, dive into the gap. Reading the intermedial references of photographs laterally, their physical suspension of narrative meaning occurs for the reader at the same time that another mode of representation, a reference to orthography, arises to offer narrative meaning. Reading them dynamically, their representation of the absence of a material referent is juxtaposed by the re-insertion of material awareness in the form of paper.

In Between Orthographic Immediacy and the Digital

This chapter initiates a description and demonstration of an intermedial hermeneutics by reading into the print intermedial novel. Tracing the steps of the reader's analysis and relationship to materiality in the intermedial reference, especially through their engagement with and awareness of material paper, I have identified here that the process of reading these references is not as straightforward as immediately recognizing their material contexts and conditions of meaning making. Instead, the reader's awareness of materiality develops through a dynamic juxtaposition of modes of media representation. Inquiring into the liminal between these modes of media—in between material paper and orthographic media—reveals that intermedial references to orthography serve as a representation of what is in between: the act of writing an absent material object into the present. In dealing with themes of trauma, ineffability, and disrupted senses of time, Safran Foer's novel extends this act of inscription to explore orthographic media as representation of the absence of the past.

Drawing attention to material conditions of intermediality and exploring the relationship between orthographic immediacy and materiality, this chapter has examined how material awareness exists in the print intermedial text and for the reader through the testimony of its destruction and the disruption of orthographic immediacy. Thinking forward about technologies

of inscription that have emerged since the photographic and cinematic camera, then, a remaining question stands relative to contemporary media forms and practices: how does the relationship between immediacy and materiality change relative to digitally produced objects, which have no material counterpart? Put another way: how does immediacy strengthen and material instantiation weaken when the condition of Roland Barthes' "necessarily real"—the material object that is captured by a photograph and therefore necessary for its production—is removed? Examining the next technological stage of inscription, the next chapter explores how print intermedial novels represent digital objects as immediate—and then seek to restore the reader's material awareness.

Chapter 3: In Between Material Language and Post-Orthographic Objects

This chapter examines the changes in the relationship between materiality and immediacy in our current age, looking at the stakes of this relationship relative to inscriptive functions and practices that have emerged through digital media. I examine how Steven Hall's print intermedial novel *The Raw Shark Texts* (2007) represents concrete images as visual representations of the "reality" of the novel's imaginary world. The images, I argue, are treated as filmic shots that incite a cinematic immediacy for the reader. However, as the concrete images refer to virtual, or "post-orthographic" objects with no material referent, each concrete image also fosters intermedial dissonance in two ways: first, there is dissonance between material language and its spatiovisual construction into images; second, there is dissonance between the material language of the concrete images and their intermedial reference to post-orthographic objects. Inquiring into this double dissonance reveals a discrepancy in post-orthographic inscription between the production and transmission of the concrete images and their reception by the reader. Put simply: the concrete images serve as a reminder for the twenty-first century reader that all digital images are composed out of a composite of pixels on the level of reception (the screen interface), and are, on the levels of production and transmission, a composite of data as computer language (code, databases, and markup).

By examining the use of material language in constructing these visual references, this chapter further develops an intermedial hermeneutics to consider the slippages of representation therein—not only across media, but also across contexts of materiality and meaning making in different forms associated with media, including physical forms such as books and cultural forms such as the novel. What I argue here about *The Raw Shark Texts* is thus relevant to other intermedial texts that highlight the materiality of their intermedial references.

Intermediality in *The Raw Shark Texts*

The Raw Shark Texts is a novel that thinks of itself as a medium: it is self-reflexive about its representational potential to call attention to its contexts in print and book cultures, its own materiality, and its generic traits and upsets of "the novel." The story begins when a man wakes up in a house with signs of amnesia, not knowing who or where he is. He discovers a letter addressed to himself, "Eric Sanderson," and that is signed "the First Eric Sanderson," connoting that the protagonist is a later version of himself. The letter explains that he is being hunted by a shark-like creature called a Ludovician, which is a type of "conceptual fish" that exists in a parallel world that is made out of pure information. Within this "concept world," which has properties similar to water, the conceptual fish consume information in the material world, particularly in the form of human memories and personalities.

The plot of the novel involves Eric's attempts to save himself from being consumed by the shark, including by receiving more letters and paper documents from the First Eric that instruct him on ways to avoid it. Along the way, he encounters the novel's second antagonist: Mycroft Ward, once a man, became so obsessed with immortality that he replicates himself until finally uploading his "self" online. A woman named Scout saves Eric from Ward and also teaches him to defend himself from the shark by confusing it with material language; for instance, she throws a "letter bomb" (typewriter keys that are taped together to resemble the size and shape of a grenade) at the shark. As Eric and Scout seek out the help of a conceptual fish expert, they continue to encounter the Ludovician and other conceptual fish, which appear in the pages of the novel as concrete images—letters, words, numbers, and symbols that are arranged in a spatiovisual way to resemble specific shapes.

The novel develops several forms of intermediality to tell the story, including concrete

images, photographs, and pictures of postcards and qwerty keyboards. It also offers descriptions of photographs, videos, and several text documents. This chapter focuses on the concrete images in particular for their intermediality—for how they offer representations of the conceptual fish of novel's imaginary world, in turn representing the practices of inscriptive media technologies. This method of representation is what Irina O. Rajewsky describes a type of intermedial referencing: not explicit references to media forms, but rather, to their representation methods and practices—a "medium *qua* system" (53).

Of particular importance to these images is their spatiovisual construction through material language—by which I mean that actual linguistic words and symbols are printed onto material paper in the shapes of the conceptual fish. The spatiovisual resemblance of these concrete images to real organisms, including sharks, fish, and amoeba, allows the reader to envision what they might look like in the imagined world. As the novel features these images in correspondence with the gaze of a character in specific directions, it treats them as visual images that are similar to the film shot. As conceptual fish "exist" in the world of the narrative, the reader associates concrete images with the character's line of sight, offering the reader a visual representation or illusory glimpse into the narrative's "reality."

Reading into *The Raw Shark Texts*' "Print Versus Digital" Binary

The Raw Shark Texts uses its materiality to draw attention to a contrast between print and digital media that functions in cultural and ontological ways: print is explored as a representational "opposite" of the virtual concept world and therefore also has the power to physically cancel it out. Previous readings of the novel by other scholars thus focus on its mediation of the status and stakes of print in a digital age; is this reading enough to understand

the complexity of its concrete images and of the text as an example of literary intermediality?

A strong analysis of the novel's contrast between print and digital media is Jessica Pressman's "The Aesthetic of Bookishness in Twenty-First Century Literature" (2009), in which she describes *The Raw Shark Texts* as an example of an "aesthetic of bookishness"—the appropriation of digital characteristics by books and the appropriation of book characteristics by digital technologies (467). As an example of literary intermediality, the novel indeed allows us to better understand the role of print and print novels in a digital culture; for example, Pressman argues that such novels "enhance the book's status as an innovative medium" (467). In another reading, N. Katherine Hayles (2011) frames the novel as a print mediation of the cultural and representative possibilities of databases. Her pertinent application of the novel's negotiation between database and narrative logics offers an understanding of the digital conditions to which author Hall refers and speaks, particularly through her reading of the imagined parallel worlds as two sides of an ontological coin through which form, content, and materiality can be negotiated.

Julia Panko's reading in "'Memory Pressed Flat into Text': The Importance of Print in Steven Hall's *The Raw Shark Texts*" (2011) resembles that of this chapter for its focus on how the novel uses its print materiality to mediate photographic and digital representation methods. Arguing that the novel stands firm on the continued significance of print and the print novel, her description of "textual inscription as its preferred form of storage" can be explored further relative to her examination of print materiality (265). Where she argues that textual inscription is of "primary importance" to the novel because it, like Pressman's described aesthetic of bookishness, helps to strengthen the cultural status of the book, I add that the use of print in general—that is, not just the printing of text on paper, but also the use of materiality through media such as print—is equally as important because it maintains for a digitally literate reader

one eye on the contexts and conditions of materiality in acts of inscription.

Pressman, Hayles, and Panko offer complex analyses that focus upon the impact of digital representation on print beyond the mode of its textuality, and that facilitate a discussion of digital means of representation and their cultural implications. Yet, as mentioned in Chapter 2, a discussion of print intermedial novels such as *The Raw Shark Texts* requires their contextualization relative to a media ecology that cannot be limited to specific forms of media, especially as we are not in a situation in which digital media only remediate, make obsolescent, or engage with print. In this case, I want to ask: what about the relationship between digital media and other media systems? How do we understand *The Raw Shark Texts* relative to a media ecology in which digital media and print media systems are engaged with and influenced by other media systems as well? Indeed, while the novel presents print as an "opposite" to digital media, it also makes reference to many other media forms, including photographs, dictaphones, and cinema—an observation that Panko makes while arguing for print's "primary importance."

Reading the novel, even in a way that echoes its own thematized binary of "print versus digital" is not enough, as it risks a limited understanding of the novel's intermediality and of print intermedial novels in general. So while existing readings offer judicious descriptions of aesthetic phenomena and renewed cultural statuses for print media that emerge from a contemporary media ecology's dynamics, there is something to be said about the novel's intermediality in terms of its combined narratological and formal efforts: its concrete images act as visual representations of the concept world—as if they are cinematic shots and therefore visual "scenes" of the world.

The example of the novel's flipbook demonstrates its intermedial reference to cinematic representation. The flipbook occurs towards the end of the novel when the Ludovician violently

knocks a ship that Eric is on and he falls into the water. Eric descends into the waves and the text gives way to a sequence of images that start out as a vision of the shark in the distance. As the reader flips through the pages, the images grow larger and larger and the shape of the shark's fin gravitates from left to right, leaving an impression that it is swimming towards Eric—but importantly, also towards the reader.

Here, the novel draws from cinematic representation to further develop the realism of its world, projecting the concrete images as specific sights of a character's perspective as if they are freeze-frame shots, and thus suggesting the illusion of movement. The way the illusion of movement works is by having the concrete image function in the same way as a cinematic shot: a series of individual images are ordered into a sequence and projected (whether through a physical flipbook of paper or through a film reel) to depict a change of positioning over shots in order to incite an idea of objects moving through space over time. When done at speeds that match how we perceive certain movements, such as how fast a human can walk, the general movement and flow of water, or the speed and smooth motion with which a shark swims, cinematic and simulated cinematic movement can realistically depict the movements of objects.

The cinematic experience of aligning a spectator's view with the gaze of the camera and by extension with that of characters can create the illusion that the spectator is seeing what characters are seeing in a fictional world. In the same way, in *The Raw Shark Texts,* as Eric sees the Ludovician approaching him with increasing speed—represented through the exponential increase in the shark's size over the sequence of concrete images—the reader interprets the images of the shark through their alignment with Eric's gaze, and they thus share the vision of it swimming towards them.

Intermedial References through the Transcendental Signified

That *The Raw Shark Texts* presumes a reader whose imagination extends to the understanding of cinematic perspective signals that it presumes an orthographically literate reader—a reader who has been culturally exposed to the inscriptive technologies of photography and, more specifically, of cinema, for their effect of immediacy of absent material referents. The illusions of immediacy and presence that are provoked come after the advent of orthographic inscription and its removal of the condition of presence for a material referent in order for an orthographic image to be experienced as realistic or "real."

It is important to identify the presumed cinematic and orthographic literacy of the reader in order to develop a hermeneutics of the print intermedial novel that accounts for its use of multiple modes of media representation. The reader's literacy in each mode is necessary for intermediality to be identified and received as such, particularly in the case of literary intermedial references, which require a reader to negotiate these various modes in order to foster narrative meaning.

Equally as important to understanding this negotiation is the role of narrative imagination in allowing a reader to accept multiple modes of media representation in the act of storytelling. This imaginative process is what Wayne Booth calls the "author-reader agreement," whereby the reader temporarily accepts the statements and representations of a world of narrative fiction to be true (Punday 33). The agreement extends the reader's imagination to accept these worlds even when they deviate from reality or are fantastic, temporarily accepting the ontological reality and parameters of fantastic worlds; this chapter will refer to these unrealistic or fantastic worlds as "imaginary ontologies." It is then this same author-reader agreement that allows the reader to accept the concrete images as visual representations of conceptual fish, such that the spatiovisual

constructions' resemblance to real organisms allow them to stand in for those organisms by association.

The reader's acceptance of visual images draws attention to the meaning making potential of these images as signifiers standing in the place of ideas. This process of substitution can be understood through Jacques Derrida's conception of the "transcendental signified," which posits the transference of signified meanings in their representation by different signifiers, thus creating new signs. With this idea, Derrida points to the construction of signs in general as the arbitrary representation of sometimes artificially constructed meanings. In the case of signified meanings that are separated from their material references, Daniel Punday (2012) likens this separation to the "detaching" of content from materiality: he draws from Friedrich Kittler's observation that the word as such "'becomes a purely differential signifier. Once imaginary effects and real inscription have been renounced, what remains are the rituals of the symbolic'" (qtd. in Punday 11). Operating on a symbolic level, signified meanings that are separated from their material references can be viewed as "re-attaching" onto other objects or as "re-assigned" to other symbolic systems.

In the case of narrative fiction that is composed of words—in other words, narrative fiction that uses the inscriptive practice of the textual symbolic—the symbolic system of language enables the shaping of imaginary ontologies by defining its "reality." The concrete images of *The Raw Shark Texts* lend to its imaginary ontology a heightened realism, offering visual representations of its organisms in order to better conceive and develop in the reader's mind a potential phenomenological experience of this ontology.

Thus we can say that the novel's mediation of multiple modes of media representation presumes a reader who, in being literate in multiple inscription practices, is also literate in the

process of substitution of the transcendental signified. This is because in the mode of verbal language and its inscriptive practice of the textual symbolic, meaning is constructed through the use of words to stand in place of ideas (material referents and theoretical ideas)—a process of substitution that can safely be presumed to be understood by the general reader. At the same time, the depiction of material referents through visual images is a standard form of symbolic representation that can be compared to the Peircian icon. The novel takes this process of symbolic representation one step further to presume that the reader, through their literacy in cinematic immediacy, allows concrete images to represent the visual aspects of an imaginary ontology—visualized and virtualized images that are potent enough to form a sense of realism.

With this understanding of differences in symbolic representation through media's varied modes of inscription and thus representation, we can inquire into how the concrete images, by extension of their being cinematic, would presumably also be described as orthographic. Through their cinematic representation, they do indeed resemble the inscriptive practices of orthography: an image stands in for an object that is absent, but it is still received as immediate and as representative of a "reality" (whether or not it deviates from how we understand the real). However, the problem with calling these images orthographic is that, whereas orthographic images offer the effect of immediacy by first recording material referents, the concrete images of the shark do not correspond to a real, living shark. Nothing is being recorded here. Hence, cinematic immediacy is being used differently.

Cinematic Immediacy Towards the Realism of Images

To understand how *The Raw Shark Texts* uses cinematic immediacy without orthographic inscription, and to analyze how its images resemble cinematic shots, I turn to another example of

its intermedial treatment of images. As Eric and Scout run away from the shark, Eric describes pausing long enough to see it swimming in the black and white tiles of the floor, what appears as the outline of a shark with the black tiles suddenly filled in with words:

> I thought I saw something, something happening to the tiles at the far end of the war, the end we'd come from. I jumped to my feet just as the blinds came down and afternoon sunlight poured in. I saw the movement in the tiles again, this time clearly. For a second, it was a nonsense information, then my eyes refocused. Every sinew in my body went slack and cold. "Oh my god," I said, quietly, simply. "Run," the girl's voice screamed. (Hall 154)

The shape and appearance of the shark are not described by Eric at any point in this passage (a lack of language that will be explored later in this chapter through the novel's theme of the uncanny), but rather through the image of the shark on the adjacent page of the novel. The use of visual imagery to stand in the place of narrative description furthers narrative development through this use of the character's gaze. Indeed, it is incorrect to say that the image is a visual accompaniment in the way that pictures in children's books complement descriptions. As there is no textual description of what Eric sees, the concrete shark is not a secondary narrative element or accompaniment, but rather, a representation of the next temporal occurrence in the narrative trajectory; this is comparable to the cinematic technique of the shot reverse shot or shot/countershot, which might present a shot of a character looking in a direction and then a shot of the image that they are looking at, thereby continuing the unfolding of the narrative.

The effect of cinematic immediacy is used to allow the concrete images to help shape the formation of an imaginary ontology in the mind of the reader. The development and experience of cinematic realism must, in turn, be explored through the conditions of production, transmission, and reception of orthography. In Chapter 2, I discussed that orthographic inscription involves the removal of the condition of presence of a material referent and also the material apparatus (the camera itself), as the photographic content is separated from its recording

device. In the case of cinema, the cinematic content is separated from the camera and also from the material apparatus of projection, the cinema projector. The illusory effects of orthographic immediacy, in this way, first necessitate that the material contexts and condition of cinema (the filmic camera, the projector, and celluloid) are not called attention to, because they break the illusion of the narrative as an imaginative ontological experience.

The cinematic experience as explored in early film theory describes it as encouraging spectators to temporarily "forget" the materiality of the medium so that they can lose themselves in the "reality" of the content. For instance, Jean-Louis Baudry's "The Apparatus: Metapsychological Approaches to the Impression of Reality in Cinema" (1975) refers to the scenario of Plato's cave to explain how this impression is formed. As the cave prisoner undergoes a true experience of perception, they cannot differentiate between the act of perceiving representational images of reality and the perception of "true" reality. Baudry argues that this is the same case in dreams, but also in cinema (217). He compares the dreams and cinema through this likeness, wherein the participant of each, the Subject, experiences an impression of reality because of a lack of motoricity and a lack of reality testing (209-10).

It is important to explore how the illusion of immediacy can still occur whether or not the spectator is aware on some level that they are only watching a movie. Christian Metz describes how the cinematic experience occurs through the spectator's grasping and overcoming of three principles of the cinematic situation: a) projection and introjection relations; b) ontological differences in presence versus absence; c) the experience of perceiving the cinematic image as if it is present (that is, the effect of immediacy) ("The Passion for Perceiving" 825). The spectator recognizes that they are experiencing perception in a state of presence, yet simultaneously understand that both characters and objects on screen are absent—a "memory trace"

("Identification, Mirror" 821). In Metz's view, the spectator is aware of the illusory reality created in cinema but is therefore comfortable enough in their knowledge to allow themselves to be duped by it (834). As an effect of the strength and persuasiveness of immediacy as described by Bolter and Grusin, the represented realities of photography and especially cinema are thus tinged with descriptions of an eagerness to enter the illusion. This effect also explains the experience of realism while viewing narrative cinema, in which the stakes of Wayne Booth's author-reader agreement are arguably raised, as spectators are able to lose themselves in the stories that the medium is telling and the imaginary realities that they present; these can be viewed as imaginary ontologies.

Applied to the Ludovician flipbook passage, the effect of cinematic immediacy as described fits the use of sequential images depicting the shark moving towards Eric and the reader's alignment of perspective with that of Eric's that allows them to see the shark in this way. However, while the effect of orthographic immediacy works as a lens through which to analyze the effects of the concrete images, orthographic images offer immediacy by first recording material objects, and there is nothing being recorded here. The images of the shark and of other conceptual fish have no material referent, meaning that its visual representation is only orthographic insofar as it stands in for a "real" shark in the imaginary world of the novel. In fact, the reader's experience of the shark as immediate and as being capable of movement only occur through the reference to the idea of a "shark": what shape it takes, the details of its physical features, and its patterns and speeds of movement. To allow an idea of a shark configure its image, and to allow its image to stand in for it as an object is a different kind of inscriptive practice that we can call "post-orthographic."

Post-Orthographic Inscription: On Transcendental Data

Mark B.N. Hansen (2004) distinguishes between the inscriptive practices of the camera and the computer. He describes a specific kind of inscriptive practice that is embodied by the camera—the orthographic—for its recording and presentation of absent material objects as if they have presence through their recorded content. One of the conditions of orthographic inscription is identified by Hansen, drawing from Roland Barthes, as the material referent as a "necessarily real" object that must exist in order for a photograph to be produced and perceived.

In contrast to this inscription with a necessarily real referent, Hansen presents post-orthographic inscription: a method of technological inscription that is shaped by digital media technologies and that therefore constitutes the most recent historical stage of inscription. The difference between orthographic and post-orthographic inscription is straightforward: as computers can create realistic images out of codes, commands, and software, and can therefore produce images and objects that have no material counterpart or material referent, they remove the condition of the necessarily real. In turn, they incite a post-orthographic immediacy—the representation and perception of objects that are virtual and thus never existed.

Post-orthography begins with understanding the digital content circuit: the production, transmission, and reception of content. The digital practice of what Lev Manovich (2000) calls "transcoding" is crucial to the standardized representation of content that allows it to participate in this circuit. Manovich holds that digital media technologies operate through the standardization of information into a uniform language that is composed through its methods of numerical representation, modular organization, automation, and variable structures. Digital media have aesthetics and poetics, but first they must offer a consistent way of speaking, reading, writing, and thinking. With its own symbolic system or language, then, digital media represent

other media by making other media speak the same language; transcoding might thus be thought of as a type of translation.

The application of transcoded content on a cultural level is explored by Alan Liu in "Transcendental Data: Toward a Cultural History and Aesthetics of the New Encoded Discourse" (2004). He accounts for the relationship between content, form, and materiality for how its current status and stakes can be understood relative to today's digital culture, capital, and digital representation. Liu draws from Friedrich Kittler's theory of Discourse Networks, contextualizing this theory relative to more recent computer-based technologies as what he calls "Discourse Network 2000." His central argument is that the further abstraction of content has led to "the separation of content from material instantiation or formal representation" (58).

Discourse Network 2000's division between content and materiality is constructed through a second division at the level of content production. To summarize what has been said of the relationship between content and materiality: in Discourse Network 1800, transmission and consumption of content occur through the same medium such that the materiality of that media system can be identified, and Discourse Network 1900 introduced a dimension of separation between transmission and content. The principle of standardization that was established in Discourse Network 1900 also allowed for a new possibility in the later twentieth century, as content could be made electronic and then digital: the removal of the "material substrate" in digital media technologies meant that "variable methods of standardization … could suddenly be imagined" ("Transcendental Data" 80).

Variability is one of the five principles of computer based media language that is outlined by Manovich. His five principles trace how the representation of content into numerical data initiates the process of digitization, including the digitization of other media forms and content.

Once content is digitally represented as data, it is stored into discrete spaces that allow for separate modular parts of a digital object to be altered or edited without impacting larger sections. The networks of storage sites for these pools of data are what Liu calls "data pours" (59). It is this process of standardizing and compartmentalizing content into data that permits it to be manipulated in variable and dynamic ways, a practice that Liu identifies as having been proliferated by postindustrial demands, in an attempt to manage content relative to its *function* rather than its form.

It is this underlying division between the production/transmission of content and the reception of content that leads to a separation between content and materiality. Transcoding content numerically and thus disassociating it from its original material conditions means that content-as-data can be organized into databases and then encoded through markup schemes for the purpose of making content functional and variably so: digital content can be stored, accessed, edited, retrieved, and utilized. The production and transmission of content is kept separate from its visual representation on the interface—a phenomenon that Liu describes as "data transcendence" (59).[24]

The process of transcoding media content that leads to its disassociation from materiality must thus be understood relative to this idea of transcendence, which relates intrinsically to Derrida's transcendent signified. Transcoding makes it so that forms of media and information can speak to one another by speaking the same language. Through this translation, Liu shows, the signified content is transcended into "pools of data" from where they can be re-assigned and hashed together in the process of post-orthographic inscription to become post-orthographic

[24] As mentioned in Chapter 1, it is necessary to note that this idea of abstraction has largely functioned as a discursive imaginary or ideal in information technology and digital media studies.

objects; data transcendence is thus described by Liu as being "semiotically transcendent" (59).

It is the removal of the material substrate that allows for data's transcendence on the level of production/transmission and also for the semiotic transcendence—the variable representation of content—on the level of reception. The digital user's engagement as such can be understood as limited to their interactions with the digital interface. Relative to the cultural phenomenon of media convergence, data transcendence enables the isolation of media practices from the material contexts and conditions of an original medium. The inscription practice therein is one engendered in our digital age of representation: the possibility of the post-orthographic writing of objects into immediacy, the very existence of which not only speaks to these objects' absence, but also to their never having had material or bodily presence. A post-orthographic immediacy requires what Manovich calls "an aesthetic of seamlessness"—a blurring of media borders into a "sameness" on the level of the interface; this "sameness" risks flattening the specific material contexts and conditions of represented media systems, in turn weakening the media user's awareness of media materiality (142). Therefore, the residue of post-orthography is that its very representation refers to the isolation of content from its material and formal contexts in order to achieve an effect of immediacy for the post-orthographic object or image. Within the liminal of material intermediality and the immediacy of post-orthographic objects is the testimony or trace of a lost materiality.

Reading for Post-Orthographic Inscription in the Liminal

The Raw Shark Texts' visual depictions of conceptual fish that are constructed through material language demonstrate the ways that print intermedial texts can critically represent and mediate post-orthographic inscription. Material awareness in particular can be renewed for the

reader who focuses on its removal in the process of post-orthographic inscription, as the novel's intermediality prompts a series of questions for the reader about the use of multiple modes of representation and their ties to materiality.

Why, for example, depict the organisms in a spatiovisual way at all? Why is the concept world represented as permeating the pages of the book? Why is this done in a way that does not offer pictures of actual sharks, fish, and parasites, but instead, in a way that provokes the reader's imagination through spatiovisually arranged language that conjures *ideas* of sharks, fish, and parasites? This leads to broader questions. Why is intermediality utilized in this novel at all? How would the novel be different if it had stuck to text-based narrative and only wrote out descriptions of the conceptual fish?

First, there is a specific literary tradition that needs to be addressed in order to understand *The Raw Shark Texts*' context in an aspect of medium history: that of visual concrete poetry. As I explore in more detail in Chapters 1 and 2, the epistemological shifts fostered at the turn of the twentieth century by the Industrial Revolution, modernity, and exact mechanical recording devices led to the literary exploration of a "semiotics of print" (Tabbi and Wutz 9). The spatiovisual experiments conducted during this time "endowed the word with an aesthetic tangibility and self-conscious heaviness meant to outlast the ephemerality of light and voice" (9). The onset of concrete poetry can be historically contextualized through these experiments, which are described variously as a "spatial turn" by Tabbi and Wutz, a "pictorial turn" by W.J.T. Mitchell (1994), or through "spatial form theory" by Joseph Frank (1991).

Against this history, then, we may read *The Raw Shark Texts*' typographic images of conceptual fish for how they recall efforts of concrete poetry to draw attention to the materiality of the page and to the medium specific modes of inscription. Writers such as Stéphane Mallarmé,

Guillaume Appolinaire, the futurists such as Franco Marinetti, or later, e.e. cummings, and the Brazillians such as Augusto de Campos and Haroldo de Campos, started to draw attention to the materiality of the page and to the significance of medium-specific modes of inscription. These writers were visually arranging the printed word to produce pictures that sometimes were and sometimes were not thematically related to the poems they wrote, with the goal and effect of exploring the multiple dimensions of the medium of language. They signaled how print is a visual medium dependent on the typographical inscription of words, which are really just visual shapes on a page, and how the graphic dimension of writing is not related intrinsically to the semantic concepts writing represents, nor to their verbal analogues. Their visual treatment of language highlighted the normally unnoticed factors that shape the relationship the materiality of a medium dictates between the signifier and signified.

Another perspective is that the visual depictions make the world that much more real as an imaginary ontology. To further complicate this and to better account for media interrelations relative to a current media ecology in which media systems constantly connect, converge, and refer to each other, we can argue that the concrete images augment the concept world as a clever metaphor for digital ontology and digital representation. The images serve as a reminder for the twenty-first century reader that all digital images are composed out of a composite of pixels on the level of reception (the screen interface), and are, on the levels of production and transmission, a composite of data as computer language (code, databases, and markup).

Before answering the aforementioned questions, let me return to discuss the relationship between post-orthographic media and print. The reason that the medium of print is particularly salient for representing the critical issues raised by digital representation is because it possesses a critical distance from post-orthography and post-orthographic inscription. First, the form of

narrative fiction has the capacity to incite an author-reader agreement that allows the reader to temporarily accept various ontological conditions—including ones that resemble digital representation. More importantly, pre-orthographic media such as paper merge the production and transmission of content with the reception of content on the material space of the page. As is stated in Chapter 1, the ink on a page can be traced to the hand or press that inscribed it, and in the same way, it cannot be separated from the other storage medium that houses it. In this sense, the medium of print is uniquely positioned to examine issues of digital representation that allow media to be received on the screen in terms of a "sameness."

Rajewsky addresses the influence of these issues of representation for understanding intermediality—an appraisal that must be accounted for in the development and practice of an intermedial hermeneutics in a so-called digital age. She argues that "with digital media it has become possible to create computer generated photos—following Bolter and Grusin a remediation of photography—that viewers cannot distinguish from images taken with an optical camera" (62). Through the digital blurring of boundaries that designate a difference between media forms—and, by extension, a difference or specificity of media systems—Rajewsky points to a potential impasse for intermediality in the age of post-orthographic inscription, as "the point of intermedial practices is precisely a perceptible medial difference between two or more individual media. Once a medial difference is no longer a given, i.e., is no longer discernible, any discussion about intermedial practices in given medial configurations becomes pointless [on the level of representation]" (62-3).

It is important to distinguish that Rajewsky talks about intermediality on the level of reception and on the digital interface, in which case she identifies the lack of what she calls "medial difference" between media boundaries as incurred through the aesthetic of seamlessness

and the larger effect of media sameness. Her notion of medial difference suggests that the differences between media and the medium specificities that are highlighted by these differences are necessary for intermedial references to exist, as it is the specificities of media that allow us to recognize references to them as such. When there is no medial difference, when media are transcoded into the same language and brought onto the same platform as a comprehensive composite, "digital media seem to be forced to include in their (necessary) simulation processes not only the simulation of the other medium's specific qualities, forms and structures, but also the simulation of a perceptible medial difference, in order to create a discernible effect of intermediality" (63). As such, discussions of intermedial practices are rendered pointless if we only discuss them on the level of representation and reception—the level at which the screen operates.

The use of multiple modes of representation at once, then, complicates the process of reception by only showing part of the process of the digital content circuit. Print intermedial novels such as *The Raw Shark Texts*, however, are able to mediate this multiplicity and simultaneity by calling attention back to medial differences, and in particular, to the borders of more than one medium that intermedial references oscillate between in order to represent one medium through another. Offering a remedy to Rajewsky's observation that digital representations of intermediality only create a "virtual" intermediality, or, what she describes as the "virtualizing and dematerializing [of] the 'reality' of intermedial cultural practices," *The Raw Shark Texts'* concrete images incite the reader's awareness that first, the mode of language functions as a visual image; next, that visual images represent imaginary post-orthographic objects; and last, that the objects themselves speak to a mode of representation with no material counterpart (62-3).

It is through these insights that the reader also recognizes that material language is used to create the physical image of the shark. Its body is made out of a fragment of prose that becomes more and less visible, ebbing and flowing as the fin is depicted as moving back and forth. The use of materiality here creates a tension with the theoretically "conceptual" shark because the concrete image is legible as both text and image. In this tension, the reader's experience is one of juxtaposition laterally—between and among multiple modes of representation—and dynamically—for the ways of seeing the images incite in the reader that shape the novel's imaginary ontology. First, there is the feeling of immediacy of the shark, the illusion that it is swimming towards Eric with its mouth gaping to consume him; this is contrasted with the reader's simultaneous awareness that the object of "the shark" and its illusory movement are composed of individual images in sequence; further, the reader realizes that the shark's form is composed out of words that are printed onto the pages of a bound book.

The two sites of liminality and slippage of representation between the word and the image, and the image and conceptualized object, are what I will describe as a double dissonance. Dissonance is also the underbelly of the liminal, revealing that the concrete images function doubly: the construction of the images function in a different way from the reception of the images. Between each position occurs a process of inscription that transforms one way of seeing, one readerly position, into the next. In *The Raw Shark Texts,* I argue, double dissonance relies on the reader's understanding that images stand in for their represented objects, but it also presumes that the reader understands that these objects may be illusory. As the cinematically literate reader is already versed in the substitution of an image for an object, cinematic immediacy can be incited without orthographic inscription. If cinematic immediacy is a learned literacy, then it can be adopted and intensified through post-orthographic inscription. That is, a digitally literate

reader is knowledgeable enough in digital representation and digital cultural objects that their experience of being "duped" by the realism of the cinematic experience is, forgive the pun, upgraded to a version 2.0: the reader knows that everything on the screen is a representation of things that are composed of encoded data and that do not necessary have a material counterpart. This allows them to buy into the illusion of an object with no material counterpart, and this is part of the condition of post-orthography.

At an extreme, cinematic immediacy through post-orthographic inscription can foster a strength of imaginary ontology that is illustrated by what could be called the Avatar effect: the 2009 film *Avatar* uses digital media technologies to construct to incredible detail the entire imaginary world of the Na'vi on the planet of Pandora. The realism of this world, Aaron Tucker (2014) argues, can cause audience members to

> even imagine wanting to live in such a place and, upon being exiled at the end of the film, to feel a longing for such an unreal paradise. A CNN article published just after *Avatar* was released explained how many viewers "experienced depression and suicidal thoughts after seeing the film because they long to enjoy the beauty of the alien world Pandora"; one spectator is even quoted as saying, "I was depressed because I really wanted to live in Pandora, which seemed like such a perfect place, but I was also depressed and disgusted with the sight of our world, what we have done to Earth. I so much wanted to escape reality." (Jo Piazza, qtd. in Tucker 98-9)

Arguably, part of the prowess of the realism of this imaginary ontology—an immediacy that has spectators wanting to re-enter Plato's proverbial cave—can be identified through director James Cameron's decision to not make *Avatar* until the right technology had been invented: it needed to be post-orthographic, requiring a *digital* 3D camera in order to seemingly construct a world out of nothing.

Of course the production of the imaginary ontology of the film involves real actors, hardware, and materials that compose the film and each of its copies; however, it is crucial to the immediacy of the film that these factors of production are made invisible at the level of

reception. If digital cinema allows for engagement with an imaginary ontology to the level of fantasizing that it is real, then the effect(iveness) of immediacy is strengthened to such a state that the necessary real(ity) could be deemed no longer worth representing. Post-orthographic inscription has allowed us to separate content from materiality and to suspend it from material contexts that include material reality to such a degree that perceived content can form and constitute ideas of an inhabitable virtual reality.

Material Language in/and Post-Orthographic Images

In print intermedial novels, the use of materiality brings us back to earth, so to speak. *The Raw Shark Texts'* use of material language draws the reader's attention to post-orthographic inscription as a kind of writing of digital objects into immediacy (into their virtual "being" or "reality") by hashing together data and code as a kind of language. Where this language is already digital by way of its numerical representation and transcoding, the novel inverts, as in a chiasmus, the method of transcoding by using material language printed on pages of paper to create the same process. It treats language as itself a kind of encoded data, using the post-orthographic practice of inscribing digital objects into immediacy by hashing together material language. The result is the reader's focus on and analysis of concrete images as multiple modes of representation—but on a level deeper than reception, breaking into the levels of production and transmission.

Put another way: while at the level of reception, the viewing of the concrete images makes them look like both visual images and digital objects, the picking apart of the elements of their optical illusion through looking at the individual letters, words, numbers, and symbols (pixel-like pieces) that compose the larger picture that this reception invites produces a

dissonance between reception and transmission/production. This dissonance takes the form of the awareness of the data-based language that needs to be produced and transmitted in order for their composite to be received as a visual image and as a virtual object. Therefore, the materiality of that language underlines that this process of representation originates through material contexts and conditions of meaning making that were removed from the system of the digital content circuit.

Turning to the contents of the novel, then, *The Raw Shark Texts* presents this complex relationship between materiality and immediacy on both the levels of reception (narrative content) and production/transmission (narrative construction), intertwining them in the novel's parallel worlds and thereby necessitating the reader's negotiation of both at once. The novel imagines that the intensification of a media ecology in human history from oral to print to mechanical to electronic to digital allows for "information," in its potency, complexity, intellectual potential, richness, and scope, to respectively thrive in a way that is described as an organic evolutionary process through adaptive and continued growth, feeding, and breeding. The First Eric reflects in a letter addressed to the Second Eric the nature of this evolution: "millions of words and ideas and concepts are constantly evolving. It doesn't seem too implausible that one of them elevated itself above its single cellular cousins in much the same way we did. The Selfish Meme?" (Hall 64).[25] Eric's Darwinian understanding of information suggests that our privileging of technology has mutated within our digital media and digital artefacts. These media and artefacts have become stronger, faster, and are generally better at managing and processing information (Goldsmith 15).

One way to frame this parallel evolutionary history by thinking about what Hayles

[25] "The Selfish Meme" is reference to ethologist and biologist Richard Dawkins' work on evolution, in which he coins the terms "the selfish gene" and "meme."

describes as a "technogenesis" phenomenon—the entangled but respective development of humans and technology, the tie between them that constitutes humans and technology as "symbiots" (*How We Think* 10). An understanding of technology as having an independent history of development can, in a sense, address how certain media ecologies (and here the term "ecology" is meant in the biological sense) ensure that specific species die or thrive. Yet, I take issue with the biological rhetoric Hayles uses to describe technological agency in this sense.[26] Talking about the evolution of technology and information in this way leaves much out, not considering the ways in which technological development in the last century or so has been shaped by economic, political, and cultural demands. For example, Liu's tracing of the emergence of a Discourse Network 2000 and of the phenomenon of data transcendence finds a foundation through a complex cultural history in which the need for the database is identified as coming out of modern demands for standardized production.

In combination with Liu's insistence on an awareness of the significance of cultural history for how we understand media today, we can re-visit *The Raw Shark Texts'* conceptual world as a figurative observation of information and technological history as framed through the generic tropes of science fiction. The Ludovician thereby represents in physical and species form the transcoding or semiotic transcendence of media and information into digital representation, through which content does directly refer to form and/or materiality, and through which the Ludovician's composition out of pure concept finds no static form or materiality; its most important requirement for representation is only the reader's agreement upon the "idea" of a

[26] I saw Hayles speak on technological agency at the 2015 MLA Convention in Vancouver, Canada. While I do not believe she thinks technology is autonomous, it appears that she does think Western society fails to consider how much power is allotted to various technologies. She gave the example of "stock market bots" that can cause mini-crashes before immediately fixing themselves, often at the expense of individual investors.

shark through spatiovisual association.

Mycroft Ward, Materiality, and Transcoded Transcendence

The status of materiality relative to the isolation of content in post-orthographic objects and through post-orthographic inscription can be further explored in *The Raw Shark Texts* through the character Mycroft Ward, who has a notable hatred for materiality for its impermanence and change (through decay) over time. He is of particular interest because he never makes a physical appearance in the novel, either textual or visual, but is instead represented through technological actions and through other characters. His story begins at the end of the nineteenth century, when he is an old man who decides not to die: "he claimed he didn't have time for death and would instead *'unshackle himself from the multitudinous failing of the corporeal harness and progress forward* ad infinitum'" (Hall 199; original emphasis). The "corporeal harness" of the physical body is seen as an evolutionary weakness because its materiality gradually decays over time; it is subject to change, as organic materials in the real world. Ward is described as being successful in transferring his "self" to another, "imprint[ing his] personality onto another person" (200). The representation of his self through an avatar in a young man named Thomas Quinn is akin to transferring his personality and selfness from body to body; the human body as an organic material entity is troublingly treated as a storage structure that is thus understood to become "obsolete" through death. [27]

With this idea of death as being "inefficient" and a waste of time, Hall illustrates the

[27] Mycroft Ward and Thomas Quinn are likely references to specific people during the eighteenth and nineteenth centuries. Mycroft Holmes is the brother of fictional nineteenth century character Sherlock Holmes; he described as a genius with such an expansive memory that he is called a human computer. Thomas De Quincey was an eighteenth and nineteenth century writer whose heavy opium use is said to have changed his conceptions and experiences of time and space.

cultural attitudes about time and efficiency during industrialization and modernity—the ages that Liu associates with sparking the cultural need for the database. Consider that Ward lives at the dawn and ascendancy of the Industrial Revolution, during which sociocultural attitudes towards time and temporality began to change via standards of industrialization and economy, and mechanical reproduction and new storage systems. In this framework of changed attitudes towards time and the epistemological shifts that occur with the associated rise of technology's cultural dominance, the temperance of organic materials becomes unattractive. Compared to then-new technologies' storage ability and their capabilities for mass production (epitomized by technologies such as photography, cinema, and the phonograph), older, materially fixed media such as paper were unattractive, as they are subject to decay over time. As such, Ward holds a distaste for the material, whereas he cherishes the principles of standardization, objectivity, efficiency, and overall "progress."

When the newly young Ward survives the First World War, he fears the impermanence of his physical body and the mortality that is emphasized by the cold, machine-like conditions of an industrial-era war. Through the novel's imagining that a spiritual self, the "data" of oneself, can move through forms, it also explores the transcendence of this data: Ward decides to spread his personality into another person, with the idea that "there would be just one Mycroft Ward, a single *self* inhabiting two bodies" (204; original emphasis). In ever-increasing complexity, Ward creates a system whereby information can be transferred to each body weekly. Yet, by including in his system an increased desire for self-preservation, he accidentally creates a feedback loop that grows out of control until his sole interest is in surviving. This he achieves by spreading to other bodies: "By the 1950s there were six bodies, by the 1970s, sixteen; by the 1980s, thirty-

four" (205).[28] As Ward's efforts to expand are aided in the later twentieth century by the ubiquity and pervasiveness of digital augmentation, he ultimately uploads himself online. He transforms—or, more specifically, he *transcodes* and therefore *transcends*—into a "Ward-thing" that, by the late 1990s (during the Dot-com boom), becomes "a huge online database of self with dozens of permanently connected node bodies protecting against system damage and outside attack. The mind itself was now a gigantic over-thing, too massive for any one head to contain, managing its various bodies online with standardizing downloads and information-gathering uploads" (204).

Speaking to the processes of transcoding, standardization, storage, and an expansion of data, then, *The Raw Shark Texts* mediates the epistemological underpinnings of postindustrial capital in combination with digital media technologies and the needs of contemporary information culture. The requirements that we place upon information as a part of what Manovich calls "storage mania"—the ever-expanding collection of information in computers and computer networks—largely influence the taking up of non-material means of information management and processing (234). Relative to the requirements of storage mania, the materiality of older media and of the archive make them comparatively limited and impermanent storage forms. However, when the content or data can transcend the material forms of "bodies," the management of data in the same language (numerical representation) and as both modular and variable thus becomes too attractive to pass over.

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[28] Hall's representation of the modern conditions of efficiency and industrially driven process that position human minds as downloadable, uploadable (contemporary diction here), archivable, transferrable, and rewritable mirror a problematic cultural trope of the human brain as a computer—a trope that has allowed linguists, neuroscientists, and computer scientists to make the analogy that the computer functions as an electronic brain. In this sense, Ward's practice of spreading his "self" perverts the humanistic notions of knowledge, subjectivity, and experience, treating them as if they are transferable to the point of being downloadable.

Yet, the reader is likely to notice a dissonance in the story of Mycroft Ward between its story of transcendence and the material means through which it is represented in the novel. It is presented as a printed paper document that Scout gives to him so that he can learn who or what Ward is and why Ward is also hunting him. As First Eric's letters are able to reach Second Eric regardless of the fact that the former no longer exists in a corporeal form, material documentation is shown to be a means of inscribing and recording information in a way that is fixed, that survives, and that therefore contrasts the ephemerality of transcendental data. Here, the reception of Ward's story may be dynamically juxtaposed by the reader's awareness of the story's production and transmission in the same representational space of the paper: the novel's typographic bordering of the story is an intermedial reference offering the imagistic impression of a paper document. The Mycroft Ward document (a clear pun on "Microsoft Word") forces Ward back into the material format he tries to evade, as it inscribes, records, and makes static the information that is vital to destroying him; at the same time, it points to Ward's removal of the condition of materiality as tied to his existence, his act of transcoding his "self" online serving to underline post-orthographic inscription as semiotic transcendence indeed.

Water, Words, and Semiotic Transcendence

The transformative act of post-orthographic inscription both separates content from materiality and enables its semiotic transcendence to represent things with no material counterpart. Post-orthographic inscription thus permits content a variability that, on an aesthetic or figurative level, lends itself to a rhetoric of what Peter Lunenfeld calls an "unfinish" in digital space, stories, and time ("Unfinished Business" 8). Content in this way becomes both more abstract and more powerful in its potential applicability, especially as the redistribution of signs

is the means through which false truths may be constructed. For this reason, figurative discussions of transcendence always also require a contextualized juxtaposition with—call it a critical *grounding* through—the re-insertion of material instantiation and awareness, whether physically, symbolically, or both.

The Raw Shark Texts offers such a critical grounding in exploring the dynamics of semiotic transcendence in the concept world, which, by no coincidence possesses the ontological (I hesitate to say "physical") properties of water. Writing in another context, Kenneth Goldsmith (2011) has compared James Joyce's reflections on the "different forms that water can take" with "different forms that digital language can take" in his examination of the textual properties of digital media (27). Water's liquid state takes many forms, as "vapour, mist, cloud, rain, sleet, snow, hail"; it possesses a transient quality that lends to metaphors of permeability, fluidity, and ephemerality—much similar to the language used to describe transcendent digital forms and transcendental data (27). Following this series of parallels that seek to find similarity in the languages in any symbolic system, whether it is the language of water, the language of words, or the language of digital media, Goldsmith arrives at the argument that language possesses a fluidity that allows it to move through spaces and places (27).

What Goldsmith's observations show is that data, as a form of language without material association, is full of *potential* meaning; framed relative to Liu's data transcendence, this potentiality for meaning occurs through data's semiotic transcendence and consequent availability to be re-assigned in semiotic or ontological construction. *The Raw Shark Texts* metaphorizes data into a water full of concepts, qualifying its distinct lack of form or materiality that prevents it from possessing any context or perceptual limits. That is, this water exists and behaves as a sea of signifieds that perpetually move through data pours and are never re-assigned

for semiotic construction, behaving as endless waves that crash into each other and never attach onto material objects.

The novel plays further with the idea of data transcendence through its theme of the uncanny, which can be described as that which cannot be comprehended, as one cannot arrive at a descriptive language for an object. Insofar as meaning is arrived at by arbitrarily constructing limits around an object or notion—that is, insofar as we use the limits available through language to form parameters, associations, or ideas of what something is *not*—the lack of a language that has association to real, material objects creates a sense of the uncanny. In the living room passage, then, Eric wakes in his living room and tries to re-orient himself by focusing on his surroundings. The television is before him, and a concrete image of the Ludovician's eye on the screen is included in the book before Eric describes "a violent *something"* coming through screen and turning the entire living room into a sea of concept water.

The novel's recurring use of the word "something" and Eric's occasional lack of words refer to the concept world's lack of materially associated language: there is no framework or toolkit for comprehending time and space, Eric reveals, as he describes that there are "no more outlines, no edging of the bookcase or back of the upturned TV, just me treading water alone in the moving and shifting and altering with time and perspective the way all words and concepts do" (59-60). Without a language of material association, Eric starts to drown in the concept water. Even oxygen and the act of breathing are concepts that cannot exist without the language to conceive of them: "I came up coughing, gasping for air, the idea of air. A vague physical memory of the actuality of the floor survived but now I was bobbing and floating and trying to tread water in the idea of the floor, in fluid concept" (59). The novel underlines the need for materiality for language, as Eric searches desperately for material anchors: "but my mind could

only find the words, ideas, signs and attachments for these things, never anything solid at all, and my body couldn't act without my mind's instruction" (60).

Materiality, the physical solidness or manifestation of material matter, is polarized as an ontological "opposite" of pure concept or information, its physical fixities attributing to all of its objects a sense of fixed meaning. Author Hall chooses to epitomize the material by representing it through print- and book-based language. As is seen in the example of the Ward document, once content is inscribed onto material objects, it is not only static but also develops more associated meaning over time. A history and memory are thus inscribed for and through each print and book object. As Eric crashes into the bookshelf of his living room, the collision of water and the books effectively nullify the liquid flow of the water world in "a heavy downpour of letters, words, images, snatches of events, faces, places — a forest, a late-night city — the sea around me mixing in and confusing with so much falling everything else" (61). This is depicted as a raining of matter, where the words are attached and *fixed* to material objects. Books crash onto Eric's head, their hard covers knocking materiality back into him, and then the water instantly disappears.

Adding to the novel's thematic mediation of data transcendence is its intermedial representation of the post-orthographic objects that significantly develop the imaginary ontology for the reader. In this same living room passage, for example, after waking from his slumber, Eric's attempt to re-orient himself to his surroundings is portrayed as his focus on the materiality of the space and objects around him. His descriptions of the physical space of the living room are then contrasted with the television screen that contains a formless "something": "There was something distant and alive in the depths of the white noise — a living glide of thoughts swimming forward, a moving body of concepts and half felt images" (57). The shark appears on

the screen as a composite of data that creates a concrete image in the shape of an eye.

The spatiovisual representation of the shark serves to represent the function of concept, detached from form, in a symbolic way, particularly when the concrete images of the shark are compared to the novel's biological diagrams of the conceptual fish. These diagrams, which are depicted as appearing in a textbook, show that the conceptual fish in their primordial stages had developed out of simple material language. For instance, an image of an early single-celled organism is simply a nucleus composed of the letters of the English alphabet (94). In Darwinian fashion, organisms are shown to evolve to have multiple cells, parts, and functions: a prehistoric fish fossil is composed not of bones, but of words that correspond to conceptual parts: fin, eye, and scale (95). Finally, the structure of a mosquito is examined, its more recently evolved body composed of computer coding language (96). It is possible that author Hall was inspired by the composition of DNA itself as a code: G,T,C, and A; the individual nuclei of all living things contains a pattern of these four nucleobases that compose its biological code and that can thus be said to write it into existence.

Though these organisms are imagined to be purely conceptual, the novel's theme of the uncanny and its development of a language without association follows that the protagonist and narrator himself is left without a language to describe them to the reader. Theme on the level of reception, in this way, crashes against form and materiality on the levels of production/transmission and reception: without descriptive language, it is arguable that the conceptual fish *must* be represented spatiovisually. That their shapes are constructed out of material language is a dissonance between word and image that can draw the reader's attention to language as a form of code. In the print intermedial novel's imaginary ontology, language need not be material as it can take the form of pure concept. While the reader accepts this in their

imagination, at the same time, for them, language cannot be separated from its material contexts, as the reader must engage with language in its printed form on material pages.

In Between Post-Orthographic Inscription and Post-Orthographic Realism

This chapter has traced the cultural and technological shifts from orthographic to post-orthographic media, inquiring into how the practice of post-orthographic inscription changes the relationship between materiality and immediacy. An examination of *The Raw Shark Texts* and its intermedial use of concrete images and their cinematic representation reveals a double dissonance between the production and transmission of these images and their reception. That the images are constructed out of material language but are accepted by the reader as representations of a fictional world reveals a dissonance between material awareness and visualized and virtualized content. That is, the reader's awareness of the material construction of a world they temporarily imagine to be "real" draws their attention to the fact that materiality falls away for the effect of represented content's immediacy.

The reader's renewed sense of material awareness is explored in this chapter as a means through which they can more critically understand the effects of immediacy as incited by technological inscriptive functions and practices. The next chapter, however, will call into question the reality of the material itself. What if materiality, as the tangible matter that we associate with "true" perception and "true" reality is used to *legitimize* the realism of post-orthographic content? While this chapter analyzes post-orthographic inscription in terms of virtuality, the next chapter addresses the consequences of post-orthographic inscription and immediacy for making the reader question if something is real—even when it is physically in their hands.

Chapter 4: In Between the ~~Material Book~~ and Post-Orthographic Inscription

This next chapter examines how the act of post-orthographic inscription complicates the relationship between material objects and the reader's conception of reality. Using Mark Z. Danielewski's *House of Leaves* (2000), I inquire into its layers of mediations: here is a novel that claims to be the final product of a book project; the book project pretends to be the edited version of an academic manuscript; the manuscript analyzes a documentary; the documentary is about a house; the house does not exist. This chapter begins with two questions: first, how does the novel use intermedial references to the media forms associated with each of these mediations? Second, how do such intermedial references create an effect of immediacy for each of these media forms and, in turn, for the "reality" of the book project?

In asking these two questions, what is revealed, starting from the material book itself, is that each intermedial reference serves to justify the "proof" of its layer of mediation and also the next layer within. I argue that the realism of these intermedial references functions through post-orthographic inscription and post-orthographic immediacy—the representation of that which does not exist as if it is real. From this hermeneutic perspective, this chapter repeatedly weaves in and out of each of these layers of mediation, negotiating in between each layer what is material and what does not exist.

The *Mille-Feuille* (Thousand Leaves) of *House of Leaves*

As a novel, *House of Leaves* is anything but straightforward. It is composed as a labyrinth of embedded narrations told by different narrators through different inscriptive media. What unites the different narratives is their attempt to understand and capture in mediated inscription (in orthography, image, and text) an impossible object: a house that is bigger on the inside than

the outside and the very existence of which is questioned.

The premise of the narrative is that a documentary filmmaker, Will Navidson, moves in with his family and discovers a door that goes into an "impossible" hallway that changes shape even while one is inside of it. Meanwhile, the house is haunted by a minotaur that is never seen, whose existence can only be represented in the faint sound of a growl in the distance and through the claw marks that are occasionally encountered. Navidson enlists a group to explore the hallway and decides to record their experiences on film, and the product of these recordings makes up the documentary *The Navidson Record.* However, it is important to note that the written text does not represent the film documentary. Rather, *The Navidson Record* film is described and discussed in an academic manuscript that is also called *The Navidson Record*, and that is penned by an old man named Zampanó who dies while trying to write it, leaving it behind in the form of fragmented notes. This collection of notes is discovered by a young man named Johnny Truant, who annotates, edits, and publishes Zampanó's manuscript as a book project called *House of Leaves*. In the introduction of *House of Leaves,* Johnny offers the reader two crucial pieces of information: *The Navidson Record* documentary does not appear to exist and Zampanó was blind. The fictional "Editors" of *House of Leaves,* who appear to work for the novel's publishers at Pantheon Books (the actual publishing house that released author Danielewski's *House of Leaves)*, interject with several appendices, including photographs that testify to the existence of the documentary, and letters exchanged between Johnny and his mother Pelafina that offer more insight into Johnny's background and character.

House of Leaves has a sister publication called *The Whalestoe Letters,* which was published later in 2000. This text contains more letters exchanged between Johnny and his mother. Danielewski has recommended that a reader look at *The Whalestoe Letters* before *House*

of Leaves, suggesting in a sense that Johnny's narration and edits to the manuscript need further mediation. The novel is, clearly, a labyrinth.

The novel is composed of a string of intermedialities that can be described through Irina O. Rajewsky's nuanced notion of an intermedial reference, which accounts for references to both media forms and media practices; the latter is what she calls a reference to "medium *qua* system" (55). As I outline in Chapter 2, in order to work as references, intermedial references must invoke and therefore carry the inscriptive functions and practices of the media that they represent, whether this is achieved through a remediation of a media form, practice, or both. In *House of Leaves,* while not all of the references pretend to be the media objects that they represent, in each case, they *do* attempt to stand in for a media object that needs proof of having had presence—either because the original is missing or because its existence is in question. In both cases, the practices of referenced media are emulated and evoked.

Examining the novel's four main layers of mediations, we may identify along them a string of intermedial references that behaves like a matyroshka doll to maintain the book's effect of immediacy: each layer attests to the immediacy of the layer it contains. First, the physical book itself is an intermedial reference to a fictional physical text that can be described as "the *House of Leaves* book project"—not the work of author Danielewski, but instead, a compiled group of textual and visual documents that the novel's fictional Editors are said to have retrieved from the character Johnny. Second, Zampanó's manuscript *The Navidson Record*—which the book project frames as its main event by listing it in the Table of Contents as appearing on page 1—is an intermedial reference that uses words to describe and therefore stand in place for an orthographic object: the documentary *The Navidson Record.* That the textual and orthographic documents share the same title begins to signal the novel's attempt at their conflation and the

blurring of the differences between their layers of mediation. Third, the documentary is an intermedial reference that uses the orthographic recording technology of the camera to capture characters' experiences in the post-orthographic house and also their encounters with the post-orthographic figure of the minotaur. Fourth, the post-orthographic objects of the house and the minotaur are themselves intermedial references to the act of post-orthographic inscription: their immediacy—that is, their fictional "existence"—occurs not through the representation of real objects with material counterparts, but rather, through the representation of virtual objects through association with the ideas of "a house" and "a minotaur." Put another way: what makes both the house and minotaur post-orthographic is that they are not real, yet their existence can be justified by their being mediated—the very process of representation practiced by post-orthographic inscription to write digital objects into "being."

Leaves upon Leaves: Other Readings

Certainly an example of the print novel branching out in a new direction of typographic, visual, and literary exploration, *House of Leaves* has been written about by a multitude of scholars and in a multitude of ways. Michael Hemmingson (2011) examines the footnotes in particular for their metafictional quality; Nick Lord (2014) examines the text's relationship between the symbolic and the real by describing the imaginary core of the novel. Jessica Pressman (2006) and N. Katherine Hayles (2002) each examine *House of Leaves* for how it pushes the representational and generic limits of the print novel today. Pressman describes the novel as "assemblaged narrative" that behaves formally and thematically as a network—a way of inserting the contemporary print novel into the context of the Internet (107). Hayles examines *House of Leaves'* multiple layers of inscription for how they "recuperat[e] the vitality of the

novel as a genre by recovering, through the processes of remediation," resulting in "a frenzy of remediation [that] attempts to eat all the other media" (781). While the novel does indeed represent almost to excess other media in a process that can be described as remediation, this chapter takes the approach of describing these representations as intermedial references instead, for an appreciation of the fundamental dissonance between each layer of mediation is crucial to understanding the novel's representation of inscriptive technologies.[29]

It is also through this fundamental dissonance that this chapter deviates from Alison Gibbons' article "The Narrative Worlds and Multimodal Figures of House of Leaves: '—find your own words; I have no more'" (2010). Exploring Rajewsky and Werner Wolf's delineations of intermediality and its subsets, Gibbons builds on Rajewsky's "media combination" or Wolf's "plurimediality," proposing to use the pre-established term of "multimodality" to describe the bringing together of semiotic and formal modes (287). Itself a deviation from the field of social semiotics, multimodality has an acutely formal focus that does not account for the issues of narratology, realism, and the current media ecology that this chapter seeks to address.

Mark B.N. Hansen's Reading of *House of Leaves* as Post-Orthographic

This chapter's analysis draws from and thus begins with Mark B.N. Hansen's "The Digital Topography of Mark Z. Danielewski's *House of Leaves"* (2004), which explores how the text requires mediations at every level to represent another non-existent inscriptive document. A closer look at his observations about these layers reveals the need to approach them as intermedial, and in turn, begins this chapter's discussion of the relationship between these mediations' materiality and represented immediacy or sense of "reality."

[29] A further explanation will be provided below through a comparison of remediation to intermediality.

Hansen's frameworks of phenomenology and orthography come back to his first observation that *House of Leaves* is "obsessed with technical mediation and the new media ecology since the introduction of technical recording in the nineteenth century" (598). Here, he draws from the novel's play with materiality (the physical *body* of the text) in order to show that the referent of the digital image has no material body. Hansen's method of dealing with the house as an unrepresentable object is to describe how the failure of orthographic function in this way will "only intensify orthographic desire" through the novel's excessive medium, the repeated attempts to mediate, in many forms and from many angles, leading the book to become "a corporeal palimpsest of the effects of mediation—including the mediation that performs itself" (612; 606). To explain these mediations and their catalysm through the unrepresentability of the house, Hansen turns to the analysis of post-orthography, whereby "the house must also and more fundamentally be viewed as a figure for the otherness of the digital" (607).

In this sense, the novel's description of the house as larger on the inside than the outside is also a comment on digital space being greater than the sum of its parts, an incongruity between experiencing and representing space that Hansen describes as an "incompatability between the 'topo-logic' of digital processing and the phenomenal dimension of human experience" (607). Part of this incompatability stems from the house's post-orthographic existence showing the reader—and by extension, the media user—that a real object (a material referent that has or has ever had presence) is not necessary to invoke the *perception* or *feeling* of the real. Thus Hansen's focus is not on individual characters, but on how each character contributes to articulating, representing, inscribing, and thus manifesting the reality of the house as a post-orthographic—that is, a *digital*—object: the house drives the plot of the narrative, but the house itself cannot *be* (in the novel or as a concept) without its being experienced and mediated by the characters.

Hansen uses the prowess of the individual mediation to illustrate the post-orthographic theory and to demonstrate it at work. In reference to the presentation of the text of *House of Leaves* as an "original" manuscript that has been marked up by Johnny, and the reader's simultaneous recognition that this "original" is in fact a mass-produced novel, Hansen describes the text as "itself already a copy … *a copy with a difference,* which is to say, a singular embodied reading of a 'text' that doesn't exist in any other form, or at least can't be passed on to us in such a form" (618-9; original emphasis). This is the value of the reader: *House of Leaves* as a corpus does not exist without subjects' experiences of a house, a film, a text, a novel, bound together as a paratext. In the same way, a branched digital text arguably does not exist without a reader to write it into being via exploration, the production of a copy with a difference, where each copy is not only legitimate, but the only necessarily real that we have, the experience that adds to the corpus. Hansen thus proposes through his discussion of *House of Leaves* "the waning of the orthographic function of recording," whereby the advent of the post-orthographic becomes *the digital way to write:* a mediation that manifests the text (602). The broader implications of Hansen's argument relate to how the advent of digital technologies have moved us away from thinking of recording and representation strictly within the framework and parameters of orthographic function, or from the necessity of the necessarily real, and towards critically rethinking "the real" and the illusions of realism potentially imbued by acts of inscription.

What this chapter brings to this conversation is a more nuanced focus on the intermediality of *House of Leaves* that understand the encounter and representation of these different practices of inscription and the media that practice them in relation to "the waning of the orthographic function" and the potency of post-orthographic inscription in the dynamics of a media ecology. Inquiring into intermediality relative to post-orthography is especially

significant, I argue, to understanding *House of Leaves* as a text for which the reader cannot rely solely on material instantiation to create a sense of intermedial dissonance, and in turn, material awareness. For this reason, an intermedial hermeneutics is necessary to understanding how the novel uses its materiality to inscribe inscriptions and to mediate mediations in the context of post-orthographic inscription.

An Intermedial Janus Face

The string of intermedial references reveals that each act of inscription molds and reinforces an intermedial Janus face: every time an intermedial reference appears, the media form or practice to which it refers is itself a intermedial reference to a third medium. This Janus face becomes the source of tension at the centre of the book's post-orthographic performance—a lie that has to be maintained through layers of mediation. The string of intermedial references begins with post-orthographic inscription, or what can be described as the inscriptive centre and starting point of *House of Leaves*. The book project offers each intermedial reference as a representation of an inscriptive medium in the form of a "real" object; however, as these objects are fictional, each intermedial reference functions, on the one hand (or rather, face), only by referring to another representation, and on the other hand, *in order* to project that object's immediacy and to thus testify to that object's reality. In this way, the layers of mediation that ripple outwards from the novel's centre carry through each layer its act of post-orthographic inscription and its effect of post-orthographic immediacy: the media object being intermedially referenced at each layer does not exist and requires mediation in order to have immediacy.

The realism of these media objects occurs in two ways: firstly, through the construction of an "imaginary ontology," and secondly, through the materiality of the physical novel. Wayne

Booth's theory of a "reader-author agreement" can be understood as a prerequisite to forming "imaginary ontologies"—the imagined world or worlds or a work of fiction—as it describes the reader's (or the respective receiving subject in the case of other media) temporary acceptance of a fictional world and its ontological laws to be true. Interestingly, the imaginary ontologies of *House of Leaves* and of each of its layers of mediation are presented as a part of the reader's own reality through its string of intermedial references of inscriptive media. The novel's real publishing house Pantheon attests to Johnny's existence, which justifies his discovery of Zampanó's manuscript, which justifies the existence of an orthographic documentary, and so on and so forth, until the reader is led to believe that the minotaur and the house in which it dwells actually exist.

As the material book of *House of Leaves* serves as the physical container (the outer matroyshka doll) of these different inscriptive media and their inscriptive practices, by examining how these practices engage with each other through intermedial reference, we begin to inquire into the liminal—what is between the layers of mediation. The materiality of the novel, in this sense, is paramount to shaping the imaginary ontologies of the book project, offering immediacy at the layer of the novel's physical form in the hands of the reader. Adding to this effect, its intermedial references—especially the references to media forms that also appear in the material pages of the novel as orthographic images, visual documents, and text (the manuscript and footnotes)—pretend to be copies of original documents in the world of the book project. The fact that the reader holds what is otherwise understood to be the material product of the story underlines the *House of Leaves* as physical evidence that all layers mediated by and contained in the novel are real.

To build, then, on the previous statement that the layers of mediation ripple outwards

from a post-orthographic centre, we can summarize by saying that the materiality of *House of Leaves* has a Janus face that reveals its dissonance: materiality serves to remind the reader that *House of Leaves* is a printed novel, its intermedial references working inwards to reveal its centre as the artifice of post-orthographic inscription; also, materiality serves to create an effect of post-orthographic immediacy for each intermedial reference, an immediacy that works outwards to justify the reality of that centre.

In tracing how the materiality of each intermedial reference offers the immediacy of the intermedial reference within it, and how this multi-layered representation of post-orthographic inscription is in ultimately justified through the material container of the physical book, an intermedial hermeneutics allows us to analyze the liminal of these layers—the act of inscribing inscriptions or mediating mediations. As such, an inquiry into the role and hermeneutics of intermediality relative to the practices of post-orthographic inscription is necessary.

Post-Orthography and the Unnecessarily Real

The inscriptive practice of post-orthography as it is used in *House of Leaves* allows the effect of immediacy, as it is this effect that constructs imaginary ontologies and that also creates the double function of the book's materiality. Post-orthographic inscription offers the effect of immediacy for represented objects on the screen in a way that I outline in Chapter 3, drawing from Alan Liu's theory of a Discourse Network 2000. Through the digital process of transcoding information into data, Liu describes how content management follows that data is separated "from material instantiation or formal representation," undergoing abstraction as it is stored into pools of data that Liu describes as "data pours" from which they can be gathered together to create digital content on the level of the screen (58-9). The storage of content into discrete,

networked data pours that are brought together to be consumed on the screen signals the isolation of content on the level of interface reception. This "data transcendence," as he describes it, functions through the simultaneous disavowal of the production and transmission of content (59).

We may align this description of the isolation of content in Discourse Network 2000 with Hansen's identification of the fundamental difference between orthography and post-orthography. The practice of orthographic inscription utilizes a material apparatus (the camera) to capture a material referent—what Roland Barthes calls the "*necessarily* real," as its material existence is a necessity for the orthographic recording to be produced. The recording of the material referent presents itself as having presence or immediacy, a phenomenon that Hansen, drawing from Barthes, argues "champions the specificity of photography as that technical medium capable of bringing together reality and the past" (603). Part of the effectiveness of this merger is the isolation of content from the contexts and conditions of its materiality: the viewer of a photograph is separated from the material apparatus of the camera; the spectator of cinema is separated from both the camera and the film projector.

In post-orthography, the representation and reception of content is also isolated from its materiality—specifically, as Liu outlines, through the disavowal of the contexts of production and transmission. This process of separation in digital content management allows for content to be received as "immediate" on the interface without the condition of the necessarily real. As digital representations can produce digital cultural objects out of pixels that are gathered through a composite of data the databases, code, and markup, its function does not require these objects to have a material counterpart. As such, post-orthographic inscription removes the necessity of the necessarily real, allowing digitally constructed representations to be received and experienced as "real," and thus embodying what I will call the "*unnecessarily* real."

The reception and experience of the unnecessarily real as it evokes the effect of post-orthographic immediacy allows for an understanding of how media are digitally remediated without reference to their original material contexts. As this calls into question the function of intermediality in post-orthographic inscription, the differences between intermediality and remediation need to be addressed. Rajewsky understands the concept of remediation "as a particular kind of intermedial relationship" (49). She navigates through several descriptions of remediation for a description of its medial interrelationships before arriving at Jay David Bolter and Richard Grusin's description that remediations "pay homage to as well as rival, earlier media by 'appropriating and refashioning the representational practices of these older forms'" (Bolter and Grusin, qtd. in Rajewsky 60). The fundamental difference between intermediality and remediation, then, is one of cultural and representational tension. In the case of digital media, this tension of remediation points to the impact of post-orthographic inscription on the current media ecology: digital remediation can pay homage to as well as rival predigital media, yet they also render predigital media materialities unnecessary.

Remediation begins with data transcendence, through which real objects, including media and texts, are transcoded to speak the same language of data—either through digitizing actual material objects or through representing the functions of these objects digitally. In both cases, Liu's notion of a semiotic transcendence in the digital circuit (the production, transmission, and reception of content) applies, as the digital representation of a material object necessarily drops its material form and thus its material signifier. The signified behaves, Liu notes, like Jacques Derrida's "transcendental signified," as it is free floating in networks pools or "pours" of data, ready to be reattached for the needs of a digital symbolic system. In this process, real media objects are remediated onto the screen, their content "equalized" in a way that more easily

enables their encounter, exchange, convergence, and represented fusion. Transcendence signifieds are thus at the ready to be rehashed from databases, to take on new meanings and forms by being written post-orthographically into post-orthographic objects or signs.

As a type of post-orthographic inscription, then, digital remediation possesses a representational paradox: the appearance of predigital media and/or their inscriptive practices on the screen is always already complicated by the precondition that they are post-orthographic inscriptions—that they are written into representation out of a transcendent data that is free of the material conditions that shape its inscriptive practices. Separated from the contexts that help to define their specificities, the remediation of predigital media flattens the foundational differences, lending itself to the aesthetic of seamlessness—the blurring of boundaries between media that leads to the on-screen impression of medial sameness. Medial sameness is the idealized oneness and equality of different media on digital platforms, illustrated by the imagined networking of all data in "the cloud."

Comparing Remediation and Intermediality

In combination, the practices of seamlessness and sameness pose a problem: how do we locate medial difference in the (inter)face of medial sameness? This question allows us to inquire into digital remediation's potential for—or eradication of—the practice of intermediality, and also to ask how we can understand an intermedial hermeneutics in the context of post-orthographic inscription.

Post-orthographic inscription reveals the practice of intermediality in digital media as what Rajewsky calls a simulation: "digital media seem to be forced to include in their (necessary) simulation processes not only the simulation of the other medium's specific qualities,

forms and structures, but also the simulation of a perceptible medial difference, in order to create a discernible effect of intermediality" (63). The problem with intermediality-as-simulation, then, is precisely the paradox of digital remediation: the digital appearance and immediacy of an intermedial reference signifies the post-orthographic erasure of its materiality and thus of the reference's medial difference. This simulation, coupled with seamlessness and sameness, allows for the effect of intermediality of predigital media that exist only virtually. As such, medial difference becomes lost, and in Rajewsky's estimation, "once a medial difference is no longer given, i.e., is no longer discernible, any discussion about intermedial practices in given medial configurations becomes pointless" (62-3).

It is crucial to add that the simulation of intermediality that occurs at the level of reception (the screen) can render *observations* of intermedial practices pointless, as the medial differences are precisely unobservable. However, the lack of difference can still be a point of entry for discussion of materiality at the levels of production and transmission. Specifically, my previous chapters have outlined the ways in which the material form of the print intermedial novel can offer critical distance from the effect of immediacy. Where the process of content reception is separated from the production and transmission of content (a process that also separates media content from its original contexts and conditions of materiality), the material medium of print on paper serves as both the space and transmission of reception. Additionally, the print novel possesses a unique proclivity "to mimic technical orthographic recording [in a way that] attests not simply to its flexibility but—far more significantly, in [his] opinion—to its special aptitude for 'documenting' the undocumentable impact of the digital" (Hansen 611). What is special about print, Hansen notes, is its ability to illustrate the fine "line between mimicry and the differentiation of media," which allows it to at once capture and deviate from

the standards of exact inscription practices (616). For example, he describes the way in which the Zampanó's narration of *The Navidson Record* documentary takes over the film when the reel runs out (616). At this point, the novel reads—and here, forward slashes signify the use of separate pages: "The film runs out here, / leaving nothing else behind but an unremarkable / white / / screen / • " (Danielewski 307-12). When the film runs out, it is Zampanó's text that takes over its depiction in short notes along the bottom of several pages. As the reader turns the pages to reveal fragments of one sentence, the combined sensory effect and affect is of individual frames at the end of a film reel, flitting across a screen.

Drawing from Hansen's description of this use of textual description as a "sensory correlate to the abrupt cessation of visual information," I would add that this sensory correlate reveals the capacity of the textual symbolic relative to the unrepresentability the post-orthographic house: the words succeed where and because the camera fails to capture the house (616). Where exact registration is not possible, there is in the textual symbolic the prowess of imagination that allows the reader to shine light into the darkness of the represented house and onto to blankness of the represented screen. Words are shown to be a refuge here, but not in the case when what they represent is also a lie. That is, while the critical distance of the textual symbolic form offers the print novel the ability to remediate and be intermedial while still maintaining medial difference, in the case of *House of Leaves,* we are shown that even material instantiation is not to be trusted.

In this example, then, print's "mimicry" of other media (an intermediality-as-mimicry or reference) is posed as a material counterpart to the intermediality-as-simulation that Rajewsky describes of digital remediation. Where this critical distance should enable to the reader to isolate the material conditions of the intermedial reference, the larger problem with *House of Leaves*

comes back to the fact that its intermedial references originate from—in order to fuel—the practice of post-orthographic inscription. As has been explored in previous chapters, a dissonance exists in the reception of intermedial references: in order for the intermedial reference to function as such, the reader must both recognize the specificity of the medium being represented and also buy into the effect of immediacy as if it is the real thing. In the case of intermedial references to post-orthographic inscription and objects, this dissonance, or Janus face, causes a slip between intermediality-as-mimicry (recognizing the representation) and intermediality-as-simulation (buying into immediacy).

Orthography versus Future Embodiment

This dissonance can be explained through Hansen's argument that post-orthography causes the necessarily real to "underg[o] a basic shift of orientation: *no longer fixated on the past, it becomes emphatically future-directed* … whereas the orthographic function of technical recording emerges from a preexistent analogy with the body, the digital (and the post-orthographic text) has no such ground" (622; my emphasis). Hansen's further description of the "future-directed process of embodiment, in which a carnal analogy with the digital is … forged as an 'original' supplement" signals a crucial and unique characteristic of the unnecessarily real and of post-orthographic inscription (623).

As the post-orthographic image does not have a body and yet, must be received before it can offer the effect of the immediacy of the object it represents, we can say that *the post-orthographic image precedes the object.* The post-orthographic is inscribed into a digital representation, writing it into being on the screen. To then represent this post-orthographic inscriptive process in the material domain of print seems perplexing, then, as post-orthographic

inscription removes the material substrate. This conundrum ignites the specific question: why is *House of Leaves* a print novel? Author Danielewski is quoted as saying that while many imagine that he wrote it on a computer, it was actually written with pencil and paper: "I'm still convinced that it's a great deal easier to write something out by hand than on a computer. You hear a lot of people talking about how computers make writing so much easier because they offer the writer so many choices, whereas in fact pencil and paper allow you a much greater freedom. You can do anything with a pencil!" (McCaffrey and Gregory 117). The fictional "first edition" of the *House of Leaves* book project is presented in the novel as having been uploaded for online access as an electronic literary project; that its "second edition" (its only edition) is in the format of a novel and that it *calls* itself "a novel" on the cover is a direct response to post-orthography as the inscriptive stage reached in today's media ecology: *House of Leaves* chooses to reside in contexts and conditions of materiality that post-orthography threatens to stamp out.

Moreover, I argue that the novel both reflects and complicates future embodiment through its intermedial references, strengthening their immediacy while serving to break down associations of truthful representation. It is important to note that alongside the characters, the readers of the novel can never access the house or the minotaur. Because the house and minotaur represent virtually constructed objects (objects without a material counterpart that can be orthographically documented), each mediation of their existence is an inscriptive failure. Yet, the choice of inscription media that are represented as material "proof" of other objects' existence is augmented by their authoritative forms—often through the reliance of orthographic media as attesting to the existence of a necessarily real material referent. *House of Leaves* pretends to be a book project published by Pantheon Books (the illusion of immediacy offered through the book's publication is explored further below). The manuscript that makes up the book's main text

presents itself as a serious academic analysis, filled with close-readings of scenes from *The Navidson Record* documentary and critical engagements with scholarly texts by Derrida, Martin Heidegger, Penelope Reed-Doob, and so forth. The existence of the manuscript is attested to in Appendix I: C, "… and Pieces," which features photographs of Zampanó's "actual notes" in fragments—all fictional creations by author Danielewski.

The documentary is an orthographic form that speaks to its representation of real world events. As a genre, it defines itself through its "truthful" representation: *cinema verité* means cinema of truth. Zampanó's manuscript muses on how orthography attests to its own truthful representation through the figure of the necessarily real and the expectation of the genre to present it without manipulation. Comparing documentaries to narrative cinema, Zampanó's manuscript states that documentaries "rely on interviews, inferior equipment, and virtually no effects to document real events. Audiences are not allowed the safety net of disbelief and so much turn to more challenging mechanisms of interpretation which, as is sometimes the case, may lead to denial and aversion" (139).

Turning the idea of *cinema verité* on its head, Zampanó's manuscript discusses the potential for deception in orthography that complicates its act of inscription as the act of writing truth, and in turn, in writing history:

> Of course, no documentary is ever entirely absolved from at least the suspicion that the mise-en-scene [sic] may have been carefully designed, actions staged, or lines written and rehearsed … For the most part, professionals in the field do their best to police, or at least critique, the latest films, well aware that to lose the public's trust would mean the death rattle for an already besieged art form. *Currently, the greatest threat comes from the area of digital manipulation.* In 1990 in *The New York Times,* Andy Grundberg wrote: 'In the future, readers of newspapers and magazines will probably view news pictures more as illustrations than as reportage, since they will be well aware that they can no longer distinguish between a genuine image and one that has been manipulated … In short,

photographs will not seem as real as they once did. (Danielewski 140-1; my emphasis)[30]

Against the premise of a *cinema verité,* Zampanó's manuscript argues that stylization in orthography and cinema—even in the documentary—has always existed, and saliently, that it is made more complicated by the advent of the unnecessarily real of digital images. The act of orthographic inscription and the truthfulness of the orthographic image confront the potential of post-orthographic manipulation. Post-orthography presents the unnecessarily real of digital images as "real," such that the object's immediacy appears to attest to the reality of an absent referent; however, post-orthographic inscription in fact uses the guise of orthography to write image as truth and fiction as history.

We see this act of post-orthographic inscription in the book project's use of orthography to attest to the reality, authority, and thus *authoritative realism* of post-orthographic objects. While Johnny claims that he cannot find a copy of *The Navidson Record* documentary and that it may not exist, "the Editors" include in Appendix III a collection of "Contrary Evidence" that attests to others' cultural engagement with the documentary, strengthening the case for its existence through a rich cultural history. Like Zampanó's "actual notes," these are fictional creations, and they include: a comic depiction of a documentary scene, which appears in a zine from October 1993; a painting of the house's street Ash Tree Lane for an exhibition entitled

[30] It is of note that Mark Z. Danielewski's father, the late Tad Danielewski, was a documentary filmmaker who discouraged his son from embarking on a career as a creative writer. His distaste for the original version of *House of Leaves,* which his son wrote in an attempt to impress him while the father laid dying in a hospital bed, caused Danielewski Jr. to destroy the manuscript in a "pity parade" of confetti (Carpenter n.p.). In what is hopefully not a stretch, I read *House of Leaves* as the mythical labyrinth, which would position Danielewski Jr. as Icarus: he builds a maze of words that mediates the demise of orthography (of the validity of the photograph and the documentary) through the ascent of post-orthographic inscription. In other words, in using the medium of print and the form of literary fiction, Mark Z. becomes his father's father (older than film), and, in tracing the digital absorption of orthography, he also becomes his father's rising son (newer than film).

"Cinema-on-Canvas" from 1994; a photograph from 1993 of a Harvard graduate student's diorama of the house that attempts to conceptualize its multi-dimensional space; and a supposed frame from the documentary in 1991.

Intensifying the orthographic removal of the material referent, these authoritative media reveal how *House of Leaves* further perverts the removal of the material substrate in post-orthographic inscription by using material instantiation to legitimize and reinforce the post-orthographic immediacy at every layer of mediation and for each intermedial reference. Potentially taking the reader further from material awareness, *House of Leaves* can be compared to a 3D printing: its post-orthographic image precedes its physicality as a material object—an image that is necessary to its very creation—but at the same time, its very real existence speaks to the "reality" of its post-orthographic image. The reader cannot rely solely on the materiality of intermedial references to create medial difference.

House of Leaves as Material Archive and Virtual Database

To return to an earlier question, it is important to ask again: how do we locate and inquire into medial difference in the (inter)face of medial sameness? Whereas medial difference can renew a user's (or reader's) awareness of materiality and vice versa, an awareness of medial sameness reveals the lack of materiality at its core and therefore its post-orthographic nature. This is because predigital media do not appear on screen unless they first are transcoded, the process of which separates them from their material forms, erasing the traces of their materiality. In other words, the very presence of predigital media on screen serves as a testament to their

having undergone post-orthographic inscription for digital reception and consumption.[31]

To frame this tension another way: a reader experiences a print intermedial reference as a negotiation between materiality and immediacy, teeter tottering between intermediality-as-simulation (buying into the effect of immediacy) and intermediality-as-mimicry (recognizing the representation of a medium as such and thus recognizing the erasure of its original material contexts and conditions). In this way, the intermedial reference—and the theoretical liminal space in which this tension occurs—contains both an act and a testament: its post-orthographic inscription of a medium reveals the very necessary erasure of the medium's materiality that enables a post-orthographic smoke and mirrors.

Hence, Lisa Gitelman's description of media as "attest[ing] to the moments of their own inscription in the past" ring true: as recording tools, media cannot mediate without speaking to their act of inscription (20). To expand upon a point I make in Chapter 1: media, as objects, subjects, and actions of inscription, offer a form in which to record history and a form to analyze the ways in which we record history. In the case of *House of Leaves,* this is the history of inscription itself. In the book's construction of a matroyshka doll of intermedial references that reinforce the immediacy of each layer of mediation (action) and that also speaks to the post-orthographic framing of each intermedial reference's inscriptive practices, *House of Leaves* behaves as a media subject, object, and action. It is a historically engaged text that, in attempting to represent and write itself at the same time through various inscription practices, can be called an intermedial event.

In this sense, the string of intermedial references is Ariadne's twine that guides the reader

[31] The digital remediation of predigital media for their communicative and aesthetic *functions* rather than their material forms perpetuates the rhetorical treatment of digital media as if it is an all-encompassing representational form—as "transcendent."

both in and out of the book's labyrinth. It ties various inscription practices together in a manner akin to Jorge Luis-Borges' garden of forking paths. As various types of inscription are represented in intermedial references, they serve as a material archive of inscription history; their cultural statuses and stakes are negotiated, their representational affordances and limitations are explored, and their capacity for truthfulness and exact recording are tried against each other.

We can also understand *House of Leaves* as a virtual database of inscription practices that simulates and executes their functions in order to write image as truth and fiction as history. To explore *House of Leaves* as a virtual database, I return to Hansen's observation that the only real thing about *House of Leaves* is the singular readerly experience—a "copy with a difference"—that produces the text itself as a future embodiment. Hansen intensely complicates how we can understand the novel as both a text to be read and a text to be written. The individual readerly experience, he suggests, creates an individual copy with a difference; however, as *House of Leaves* is a cultural text, a multitude of readers and thus of copies with a difference constitute a collection of singularities.

To explain, we can say that the product of *House of Leaves* emerges out of a reader's engagement with the novel's predefined parameters (its finite material form), a syntagmatic sweep across words that is comparable to transitions across rows of relational database cells that are composited to make meaning. Every time *House of Leaves* is interacted with, the transitions undertaken by the reader cause a different textual product to emerge and to be incorporated into the *House of Leaves* database or corpus. We see the material archive and virtual database at work in two examples: the contradictory inscriptive and historical truths of the novel's materiality; and the inscriptive "reach" of the minotaur.

In Between Leaves: Contradictions, Self-Referentiality, and Collapse

To begin to break down the post-orthographic labyrinth of *House of Leaves,* Danielewski includes contradictory "truths" in the book project. Building on the authoritative forms of the novel's material "proof," at least three contradictions—and therefore liminal sites of dissonance—occur to both write and cut down the various acts of inscription and the validity of the objects that they write into being. First, dissonance occurs through the intermedial references to photographs in the appendices. In between the material printing of the photos and in their serving as copies of original photos that testify to the house's and documentary's existence is a post-orthographic lie: the documentary still cannot be found and thus the house cannot be proven to exist. Next, dissonance occurs through the function of the manuscript to attest to both the existence of the documentary and project itself as a factually based, academic manuscript, as Johnny reveals that some of the citations refer to academic texts that do not exist. The false sourcing and plagiarism signals to the reader to be wary of the authority of the academic text.

Finally, the material book as a published work reveals dissonance by presenting itself as being both published by Pantheon as the work of Danielewski and as the published product of a book project, the author of which said to be Zampanó. The opening pages of the novel read "Mark Z. Danielewski's" and on the opposite page: "*House of Leaves* by Zampanó with introduction and notes by Johnny Truant." In an act of self-referentiality, the publishing information about the novel plays with the reader's expectations of published texts to reinforce the illusion of the reality of the novel's contents. The statement that this is a "First Edition" is struck through and a note from "the Editors" describes the novel as a work of fiction imagined by "the author"—but it is unclear if Danielewski's publishers are referring to him, or if the novel's fictional Editors are referring to Johnny and Zampanó. Finally, the book's cover boasts

that this edition is "the remastered full-color edition," a trait also mentioned in the "notes" of the publishing information page; the idea that this text is worth multiple editions and a "remastering" sets up the fiction of its long publication history. The comparison between previous editions also mentions that older editions have appeared in various typographical styles, including braille; this note furthers the novel's fictional publication history by including an imagined collective of readers, editors, and authors in the book project's past.[32]

The string of mediations has led to descriptions of *House of Leaves* as a multi-linear text, as the narrative is composed of Will, Zampanó, and Johnny's combined mediations of the problem of the house (its unrepresentability). The formatting of the separate narratives emphasizes the book's multilinearity, as it implies that the separate narratives are made up of different stuff only tenuously stitched together. The table of contents, for instance, indicates Zampanó's manuscript as the core text; however, Johnny's annotations appear as footnotes that deviate from commentary on the manuscript. He inserts footnotes in reaction to specific things in the manuscript, and his explanations, criticisms, and guesswork become their own narrative thread of the happenings of Johnny's life, upsetting the generic space of the footnotes and colonizing the generic space of the "core text" of the manuscript.

There have been literary antecedents to Danielewski's style. Vladimir Nabokov's *Pale Fire* (1962) and David Foster Wallace's *Infinite Jest* (1996), for example, develop a second layer of the narrative through an apparatus of extensive notes that at times overwhelm their respective "core texts." However, Danielewski uses footnotes as opposed to the endnotes of Nabokov or Foster Wallace. By placing the additional commentary on the same page as the "main" text,

[32] It should be observed that novel's visual tricks would not be legible for the blind reader. The inclusion of blind readers is especially interesting for how it undermines the authority of *House of Leaves'* visual experimentation and orthographic documents.

Danielewski's disruption of the narrative as well as the printed page is more abrupt.

The novel develops a branching system at work that resembles the theoretical models of Borges' "Garden of Forking Paths" (1941) or Julio Cortázar's *Hopscotch* (1963), in which each author envisions a way of interacting with text that is intrinsically non-linear.[33] Cortázar in particular asks the reader to pull multiple narratives from the text by reading narrative fragments in varied order. The reader's subsequent tactile engagement with the text is a technique borrowed and expanded by Danielewski in order to collapse *House of Leaves*' layers of mediation both formally and thematically. In the chapter entitled "Labyrinth," footnotes 146, 148, and 149 appear from pages 120 to 121, but 146 appears in the margins of the text, and footnote 148 is a footnote of a footnote that appears sideways on the upper left hand corner of the page. Footnote 147 cannot be found until page 135, where it appears as a footnote of a footnote that is upside down. Such footnotes often continue for pages, causing the narrative of the manuscript to fall by the wayside, momentarily suspended until Zampanó finishes his explanations or Johnny is done sharing anecdotes. The reader who attempts to read these narrative layers of mediations separately in an attempt to read linearly from cover to cover will deviate from the novel's format, which encourages them to stray. To *not* read the various narratives as layers of mediation and as mediations upon mediations would involve the reader's choice to resist its form. It is possible to argue that the way the novel's formatting collapses its layers of mediation, granting it the structure and behaviour of a database. For example, building on Hansen's note that Johnny's mediation of Zampanó's manuscript is a copy with a difference, I read Johnny's footnotes as a

[33] Borges and Cortázar's texts and textual models are often compared to hypertext or electronic literature, and in this way, a reading of *House of Leaves* as electronic or database literature is certainly possible. While such a reading is not the focus of this chapter, a curious reader can turn to N. Katherine Hayles' "Saving the Subject: Remediation in House of Leaves" (2002) for one such comparison (795).

form of metadata that become just as important as the "main text," especially as they engage with the "main text" in order to add to its corpus.

Even more self-referential and self-reflexive is the book's idea that layers of mediation and therefore dimensions of reality can be breached or can collapse. In an extraordinary demonstration of this collapse, while Johnny is deep in the process of editing and annotating the book project, he describes hanging out with a band and hearing them sing a lyric in reference to a scene from *The Navidson Record* documentary. He asks the band about the lyric, possibly in hopes of finding a copy of the documentary:

> the drummer shook his head and explained that the lyrics were inspired by a book he'd found on the Internet quite some time ago. The guitar player walked over to a duffel bag lying behind one of their Vox amps. After digging around for a second he found what he was looking for. "Take a look for yourself," he said, handing me a big brick of tattered paper. "But be careful," he added in a conspiratorial whisper. "It'll change your life." (513)

In Johnny's hands is the completed, notably tattered, printed first version of *House of Leaves*, its title page stating that it is "by Zampanó, with introduction and notes by Johnny Truant" (513).

This post-orthographic self-referentiality becomes important for the further inquiry of a key scene in *The Navidson Record* documentary, in which Navidson is stranded alone in the pitch-black labyrinth. Recalling that Zampanó is blind and could not watch the documentary, technically no one is able to watch this scene, as it takes place in the dark. While Navidson must resort to vocal recordings to represent this scene, Zampanó describes the scene both through Navidson's interaction with the recorder and through depictions of the space and objects around him, which prompt's the reader's skepticism about both Zampanó's descriptions and the documentary's reality. In addition, another collapse of the layers of mediation occurs when, most curiously, Navidson appears to be aware of the existence of the very book the reader is holding. Zampanó describes Navidson's state of mind in this scene and his physical actions in a collapse

of layers of mediation: "Questions plague him. Is he floating, falling, or rising? Is he right side up, upside down or on his side? Eventually, however, the top spins and Navidson accepts that he questions are sadly irrelevant. Taking a tiny sip of water and burying himself deeper in his sleeping bad, he turns his attention to the last possible activity, the only book in his possession: *House of Leaves*" (465).

Similar to Johnny's experience holding his own completed manuscript in his hands, here, the completed *House of Leaves* book project has found its way back down to its post-orthographic origin, becoming a testament to its own existence. What comes next then, is Navidson's fascinating dilemma: he has nothing to do but read, but has no source of light save a box of matches. He decides to read the front and back of the first page with the aid of a lit match, then tears each page out and lights in on fire in order to read the next two pages. With only one page and one match remaining, in "a final act of reading, a final act of consumption," he lights the top of the page on fire and tries to read the page in a race against its destruction (467). Here, then, is the opening up of liminal, the intermedial, of post-orthographic inscription: the act of reception is at the same time the act of destruction.

Writing under Erasure: Covering up Material Traces

The figure of the minotaur even more poignantly demonstrates this act of destruction, as its ability to breach layers of mediation metaphorizes the text's practice of post-orthographic inscription. The minotaur is able to penetrate Zampanó's imaginary ontology or "reality," and thus his inscriptive layer of mediation. Thematic and formal signification merge through the minotaur, as wherever Zampanó's manuscript refers to information that suggests its existence, the novel's text is in red font and struck through—a representation of the minotaur clawing away

at clues that reveal its presence. On Johnny's layer of mediation, he and his friend Lude go into Zampanó's run-down apartment, where he describes seeing the trace of the minotaur for the first time: "on the floor, in fact practically dead center, were the four marks, all of them longer than a hand, jagged bits of wood clawed up by something neither one of us cared to imagine" (xvii). Next, while describing the collection of notes that make up Zampanó's manuscript, Johnny reflects on its physical "horror" in a way that speaks out of his own layer of mediation and into that of the reader's: "even without touching it, both of us slowly began to feel its heaviness, sensed something horrifying in its proportions, its silence, its stillness … I felt certain its resolute blackness was capable of anything, maybe even of slashing out, tearing up the floor, murdering Zampanó, murdering us, maybe even murdering you" (xvii).

The minotaur is never seen or described in *House of Leaves*, as it has no physical form; instead, it is captured by the documentary for what it leaves behind—signifiers of its presence in the form of horrifying claw marks or echoes of a menacing growl in the distance. Its element of terror occurs in part, then, through its lack of an appearance except through its visible traces of destruction. The novel's theme of the uncanny, developed in descriptions of the minotaur's traces as "unimaginable" and the space of the house as "overwhelming" and "unthinkable," correlates with the larger theme of the unrepresentable. The unrepresentable is the upset of orthography, as orthographic inscription functions through its ability to offer an exact representation of a real object; with the uncanny, exact representations are impossible. The uncanny occurs through the theme of a lack of sight, originating with Zampanó's blindness and continuing through the resolute darkness of the house's hallways, the fluctuating dimensions of the house that make it impossible to map, and the use of echoes to conceive of the limits of a space. I discussed unrepresentability and the uncanny in Chapters 2 and 3 through a lack of

language and therefore a lack of the conceptual parameters around which to arrive at a definition and understanding of a *thing.* In *House of Leaves*, the problem lies not with language but with the thing that evades definitive capture—that which is post-orthographic and precisely has no body, that which is composed out of data, representing an idea and not a real thing.

The uncanny in *House of Leaves* reveals the liminal between its mediations, as it signals a hollowness at the book's post-orthographic centre and of its acts of inscription that build up and out its façade of immediacy. In between every inscriptive layer of mediation there is also a necessitated act of hiding the erasure of material instantiation that fuels its post-orthographic immediacy. That is, the documentary does not exist for reception by the reader except as mediated through Zampanó's manuscript. Yet, the novel pretends that this act of textually symbolic inscription of an orthographic medium cannot occur without rousing the minotaur—as if the attempt to use words to represent the minotaur's orthographic representation allows the minotaur a point of entry into the outer frames of the narrative, moving it up the string of increasingly grounded and real inscriptive practices and into another imaginary layer. Thus, "claw marks" appear metaphorically through the novel's red, struck text.

The immediacy of the metaphorical claw marks on the novel's printed pages might be called monstrous itself, for it at once speaks to the material trace of a post-orthographic object that has no material form and also to the act of deformation of materiality that must occur in order for these traces to exist. Indeed, these are not acts of creation left by the minotaur, but rather, violent acts of destruction upon material objects. In this way, the material traces of deformation can be compared to the Heideggerian X—the act of crossing out a word and still including it in order to speak to the fact that an attempt at signification has occurred (see Heidegger 1983). Called a writing "*sous rature*" (writing under erasure) by Jacques Derrida, this

is a post-structuralist scholarly strategy and also a rhetorical technique in which a word is visible, yet erased, allowing for both its limitations (and the lack of alternative word choices) to be received by a reader.[34] Outside of Heidegger himself, perhaps the best use of the Heideggerian X is in Derrida's work on deconstruction. Through deconstruction, he draws attention to the "violent hierarchy" of dominant symbolic structures in which specific signs and concepts take precedence over non-dominant signs and concepts (Slocombe 91).[35] As such, a writing under erasure appears to be a vigorous challenge to dominant symbolic structures and their ideological foundations in a history of problematic concepts.

However, examples of similar acts of the use of struck text allow for a rethinking of its potential to draw attention to the act of making invisible those very things that are non-dominant and unwanted by ideological systems and structures. For instance, the visual artist Jean-Michel Basquiat notably included words in his paintings and then struck them out so that they remained legible. Arguably challenging the conventions of what is "worthy" of attention in visual art, the function of this act is to create a certain experience for the viewer, who possesses a heightened focus on and appreciation for that which is erased. Applied to post-orthographic inscription, we can understand the post-orthographic content for how its immediacy takes precedence over the representation of materiality, which is erased from the viewer's reception.

House of Leaves' strategy towards the Heideggerian X more closely resembles that of Basquiat's: it features the visual and typographical representation of the minotaur's red struck text, tell-tale scars on the material pages of *House of Leaves* that can be explored for the act of erasure they represent. If the reader imagines that the minotaur breaches the layers of mediation

[34] Here, I am drawing from Marie-Laure Ryan, who uses the terms "affordances" and "limitations" to describe the representational parameters and limits of media.
[35] Slocombe applies Derrida's theory of a "violent hierarchy" to his own reading of *House of Leaves,* focusing on the tension of signification in terms of nihilism.

and carries with it—imposes through its presence—the effect of post-orthographic immediacy, then its act of material deformation can be read as the destruction of materiality that fosters the unnecessarily real—including the very existence of the minotaur itself. The act of post-orthographic inscription in *House of Leaves* erases the "unwanted" materiality of the novel by crossing out. This is where the dissonance occurs, as the reader can dynamically juxtapose the intermedial reference to the book project's "clawed out" text to the novel's struck text on material pages. From the visual claw marks in the haunted house moving outwards through the text's multiple layers of mediation, every material trace that the minotaur leaves behind threatens to reveal the act of post-orthographic inscription and must therefore be covered up by another layer of mediation. To keep up the effect of immediacy, the book induces a layering of matroyshka dolls upon dolls, the act of which occurs in the liminal, hiding the fact that there is nothing real behind claw marks.

Intermediality and the Story of Inscription

In its intermedial practice, *House of Leaves* uses the imaginative potential of fiction in the author-reader agreement, drawing much from the reader's literacy across multiple inscriptive practices. It is the reader's familiarity and literacy in the inscriptive practices of words, images, and digital representations that allows the print intermedial novel to reference and stand in for other media forms and practices. As *House of Leaves* shows, this process of substitution is dangerous because of the arbitrary nature of sign making in general. The signified can be attached to any inscriptive medium with the effect that the resulting sign, image, or object can be called alternatively a "representation," a "documentation," or even a "truth." In the case of transcendental data, however, content becomes increasingly abstracted when it is separated from

its original material forms.

The agreement that *House of Leaves* forges between the author and reader causes the reader to provisionally accept the realism of the text's intermedial references because of the way they are represented materially. Paradoxically*, House of Leaves* shows that the reader cannot trust the text's claims that these intermedial references are offering realistic representations of reality, even when these references are embodied by physical objects in their very hands. In negotiating the dissonance that the intermedial references possess between materiality and immediacy, the reader engages in a dynamic juxtaposition between truth and fiction, and between the event and the story.

This chapter has explored the practice and analysis of intermediality in the context of post-orthographic inscription, addressing a specific kind of relationship between materiality and post-orthography that flattens medial difference—a crucial designation in intermediality—into medial sameness. The materiality of *House of Leaves* serves as the material archive of the inscription practices encompassed therein. In its use of material intermediality, the text illustrates the potential for post-orthography to collapse the act (of inscription) and the testament (of the conditions of erasure in inscription) by pretending they exist in the same space of the material book and at the same time in the act of reading.

The function of intermediality to archive a range of inscriptive practices—from the textual symbolic to orthography to post-orthography—through intermediality's figurative mode of representation—turns the reader's focus to inscription itself. "All mediation is remediation," claim Bolter and Grusin (14). Inscription as the act that writes media into being is the result of media encounters within a wider media ecology. Where post-orthographic inscription is concerned, the act of inscription must be investigated for its ability to represent "reality," and by

extension, “history.” By speaking to digital forms of writing, texts such as *House of Leaves* demonstrate how writing can itself become post-orthographic—transcendent, dematerialized, and subject to questions of how much we can trust the realism of realistic representations.

Addressing the post-orthographic complication of how we arrive at conceptions of reality and history, *House of Leaves* both critically performs and presents itself through post-orthographic inscription, becoming a story of itself and a testament to its own necessity. It functions as a string of intermedial inscriptions to reveal the act of material erasure at its centre, but it also documents this string as the forking paths of inscription history in order to reveal the erasure of its own materiality. At its core’s core, the act of inscription allows for the writing of the story of inscription.

Conclusion: Remembering and Rewriting; or, Where is Materiality?

This dissertation has been an inquiry into how media engage with each other and encounter one another in an effort to show that the inscriptive functions and practices of specific media, while certainly historically shaped, are not historically bound. My task, then, has been to reconcile the encounters of older and newer media in our current epoch that is often thought of in terms of a dominance of digital media and culture. Part of what defines digital media as "new" is that the way in which their remediation and convergence of predigital media—acts that I have described in terms of inscription—have designated them as an all-encompassing representational mode and format.

My focus has thus been on what is lost in the process of translation: the user's awareness of medial difference, and in relation, of represented media's original contexts and conditions of materiality makes us forget the "old" in favour of "newness." I have explored how this occurs through a corresponding increase of the effect of immediacy and a decrease in the explicit presentation of materiality—from the material contexts of media forms as they appear on the screen interface to the material conditions and apparatuses of digital content production/transmission. My emphasis has been on how this process is itself rendered invisible to a media user, what I have suggested is a covering up of the tracks of how materiality awareness is erased on the level of content reception.

Consequently, this dissertation has approached a media user's awareness of materiality as having the potential to unveil material instantiation's erasure by technological inscriptive media and functions, zeroing in on the theoretical site of this erasure: the intermedial, or, the site in which inscription occurs to bring two media together. Analyzing contemporary print intermedial novels that demand the reader's awareness and engagement with their inherently material

medium, I have inquired into the tensions, slippages, and dissonances of intermedial references in print. These reveal the act of inscription of one medium into another, and in the process, reveal that a medial difference exists and persists.

This difference draws attention to the fact that the inscriptive functions and practices of predigital media are not historically bound, eradicating ideas of their being partitioned off and of older media as being culturally irrelevant or obsolete. Indeed, their continued use and representation in cultural texts combats the idea of their dissolving and disappearing into digital platforms. Thus, my dissertation has sought to rethink linear approaches to media development over history that polarize media as "new" and "old" by reconfiguring media in an ecology model, viewing media as networked and referential in cultural history, memory, and reflexive practice.

The Eternal "Now" and the Eternal "New"

The reason that a rethinking and reconfiguration of media relations over history is important is because it allows for the argument that media are not bound to the historical contexts and conditions out of which they emerge. Thus, the loss of historical consciousness that I outline in Chapter 1 deserves revisiting as well: I discuss this loss vis-à-vis Joseph A. Schumpeter's notion of a "creative destruction" that drives a constant revolution of "the economic structure from within, incessantly destroying the old one, incessantly creating a new one" (83). Alan Liu argues that creative destruction has reached a modern apex in post-industrial information culture, in which history, historical consciousness, and what he calls "the literary" also risk destruction (*The Laws of Cool* 2). He observes that information culture and postindustrial society create a circumstance and style of thinking that is governed by the "eternal 'now,'" thus designating history as "obsolescence" (8; 6)

It is this mode of thinking about history that I have argued frames media over history in the terms of the "old" and "new." Fleshing out the ability of newer media to offer the immediacy of older media (this ability is what makes it "new"), we may align the effect of immediacy in technological media with the historical (or rather, antihistorical) approach of the eternal "now." In this way, eternal nowness and eternal *newness* are two sides of the same bright and shiny coin, accounting for the role of each in a systematic drive that destroys in order to create. These modes of thinking have no time to look backwards into history, and this is the very point of immediacy and "new" media in the vein of a "just-in-time" capitalist mentality: the object is here now, for us, so that we do not have to remember from where it came or how it came to appear to be.

Contextualizing this loss of historical consciousness, Neil Postman (1993) explains that the principles of industrial invention follow the belief that "what cannot be measured either does not exist or is of no value" (51). Troubled by this way of thinking, I began my dissertation because I wanted to know what would happen in an age when "the literary," being theoretical, creative, reflexive, and historically conscious, is potentially devalued. My inquiries led to recurring observations of the affordances of digital media to "encompass" other media through representation and to offer a theoretically infinite variability of digital content—the combination of which can encourage the privileging of "progress" and choice over tradition and history.

The tension between "progress" and tradition seems to permeate contemporary literature that speaks to a post-industrial information culture. One of my earlier encounters with this kind of literature was through Manovich's reading of Rick Moody's collection of short stories, *Demonology* (2002). Manovich offers *Demonology* as an example of how a creative writer in "a digital age" may have difficulty dealing with an abundance of choice, the freedom to pick and choose, and the idea that there are always other options, other representations, other platforms,

and other ways to write. In one short story, Moody slips into stream-of-consciousness, navigating through how best to represent his deceased sister Meredith in a negotiation of choice with (and within) literary tradition. He writes,

> I should fictionalize it more, I should conceal myself. I should consider the responsibilities of characterization, I should conflate her two children into one, or reverse their genders, or otherwise alter them, I should make her boyfriend a husband, I should explicate all the tributaries of my extended family (its remarriages, its internecine politics), I should novelize the whole thing, I should make it multigenerational, I should work in my forefathers (stonemasons and newspapermen), I should let artifice create an elegant surface, I should make the events orderly […] I shouldn't clutter a narrative with fragments, with mere recollections of good times, or with regrets, I should make Meredith's death shapely and persuasive, not blunt and disjunctive. (qtd. in Manovich 44-45)

Manovich uses this example of a grandiose exploration of narrative tactics to argue that through the computer and through computer culture, the traditional author's authoritative role is paired with that of a media user's, as the user can explore their own branches and networks through choice (45). Moody demonstrates the possibilities of these narrative branches, rambling almost uncomfortably about all that he can, could, or *should* do in his writing, and mediating a writing-through-selection that causes confusion and creative anxiety. It is the representation of this confusion and anxiety, however, that allows Moody to cope, and that also helps to insert tradition, or at least literary tradition, into his text as he simultaneously feels, reflects, and represents his thoughts. In this way, *Demonology* serves as a documentation, a testament to the experience of the contemporary writer and their struggle between cultural choice and literary reflection. This is a struggle that, at first glance, seems to cause a breakdown of meaning, but in fact, is successful in representing the moments when meaning threatens to break down and is then kept from doing so through a negotiation between theoretically infinite choices and a focused literary representation of the process of self-reflection.

Towards a Future Literary: On a Writing of Erasure

This unique form of writing that attempts to work through that which threatens its traditions sparked my interest in analyzing contemporary print literature, with a focus on novels. I have been particularly intrigued by Alan Liu's theory of a "future literary," which I discuss here in the conclusion of my dissertation for how it can take my proposed hermeneutics of the intermedial and of materiality one step further, towards a nuanced approach to erasure as an act of historical destruction and to practices of erasure in literature as a response to destruction.

The purpose of the future literary, Liu theorizes, is to "serve as witness to the other side of creative destruction; not the boundless 'creation' that has powered the market rallies of the New Economy, but the equally ceaseless destruction that produces historical difference" (8). So long as there is reflection, even that which is destroyed can linger as a memory. In this sense, Liu describes the contemporary "job" of literature and the arts today to be *history:* "the most ambitious art will henceforth 'make history' by itself performing arts of destruction—or at least of blockage and trespass—in a certain manner, against certain targets" (8). But not just any history: he continues that this is "a special, dark kind of history … of things destroyed in the name of creation" (8).

As Liu posits that each act of contemporary creativity thus creates a dark lobe, like a "shadow," I wish to place greater focus on these shadows as spaces and substances of the residual—spaces that represent what is destroyed and forgotten in how we think of history and of historical consciousness (307). My interest in the residual is in its value as a site of remembrance of an excess that is brushed aside and left behind. Its unwanted presence—and also its instrumental absence—possesses the same value that Georges Bataille (1986) establishes of excrement and excremental culture: as having the power to call attention to that which is dirty,

unwanted, and rejected in a mode or system of thought (92).[36]

Residue threatens the drive of creative destruction by identifying and identifying *as* its dirty laundry, and it is therefore residue that I have focused on in the intermedial as a space of medial comparison, juxtaposition, and difference. As medial difference enables lateral discourse and begets discursivity, it encourages us to think of media and their relations in terms of their significant alterities. An intermedial hermeneutics can, in this way, be explored further as a way of engaging in the future literary: it offers a way to read on the outskirts and in between the lines for what is not dominant, obvious, or even present in a text. In my own reading of materiality in intermedial references, I precisely read for the absence and erasure of materiality as something that is unwanted, rejected, and dirty, for it spoils the clean aesthetic of seamlessness and the pure effect of immediacy. In this sense, an intermedial hermeneutics can read into what is *not* there, whereby, as I have shown, the intermedial text can be analyzed for the act of writing it into being and therefore also as a testament to the complexities and potential violence of that act.

To consider further how an intermedial hermeneutics reads into what is not there, we can turn to one of Liu's own examples of the future literary in action: the Critical Art Ensemble, an experimental and arguably radical art collective that asserts for the practice of "hacktivism," or, digital activism. A prime objective of hacktivism is to trespass and block systems and institutions of capitalist power, representing a contemporary countercultural movement against post-industrial information culture. From the perspective of writing a dark history (what could be understood as a subset of a Foucauldian counterhistory), I will identify key theoretical frameworks in hacktivism that can define core principles in the theory of the future literary. Specifically, I am interested in the act of trespass through erasure, where hacktivists go online

[36] My discussion of the residual here is developed from a short article that I wrote for *English Studies in Canada* entitled "'Efficient' Creativity and the Residue of the Humanities" (2014).

and erase personal information and data that has been collected about sociocultural groups (including themselves). Erasure as a practice has a powerful central message: "This is mine; this is ours. I am *taking it back* by erasing it."

Used by the future literary, the act of erasure is fascinating for how it offers possibilities of symbolic remembrance, critical reflection, and reclamation. To offer a literary example of this erasure in action, I turn to Jonathan Safran Foer's *Tree of Codes* (2011), an experimental text that performs and embodies erasure in the material domain of print. In the Author's Afterward, Safran Foer discusses his long-standing desire to create a die-cut "book by erasure"—a book made out of another book by cutting out sections with an XActo knife. Contemplating which book to cut up, he eventually chose Bruno Schulz's book of short stories, *The Street of Crocodiles* (originally published in 1934), and thus we have *Tree of Codes*; its title is itself a "cut up" of the letters of the original book. While the question of whether or not the text is intermedial is a difficult one, as it serves as a representation of a separate short story, it can be described as intermedial for how it functions as two print texts at once.

Tree of Codes is largely unreadable, as parts of it have been "erased." As seen through the framework of hacktivism, the erasure of content is a retaliation against institutional power and a response to the efforts of that power's original erasure in replacing tradition with consumer-savvy choice. Erasure is thus comparable to Chapter 4's discussion of the critical value of the Heideggerian X and of Jacques Derrida's writing under erasure. Here, I want to argue that for the future literary and for a hermeneutics of the intermedial, erasure must not only be about literally erasing things, but about representing, as a *testament,* that which has been erased. In "How to Analyze Texts that were Burned, Lost, Fragmented, or Never Written" (2013), Sean Braune identifies different categories of absent or partially absent texts, including

the fragment and the supplement. He argues that "the fragment is that which remains after either the biblioclasmic event (as in the case of manuscript burning), or the title that suggests the totality of an imaginary work (as in the case of texts that do not exist), while the supplement can be considered the potential space that is occupied by the text that no longer exists (or never did)" (240). To these categories of loss, I add the testament as the simultaneous response to the lost text and effort to participate in its continuation by remembering, reflecting upon, reclaiming, and rewriting textual absence and erasure. The future literary leaves us with a text of erasure to examine, a note left at the scene stating that that which was erased has also been reclaimed.

Before continuing with my discussion of erasure and the future literary, I must discuss why *Tree of Codes* is an apt choice for the idea and practice of erasure. Moreover, it is important to contextualize its historical context and weight. Bruno Schulz was a Jew who lived in Austro-Hungary during the Second World War, in a town overtaken by Germans. He was shot in 1942 by a Gestapo officer as an act of revenge on another Gestapo officer who had favoured Schulz. As *Street of Crocodiles* is only one of two remaining Schulz works, Foer chose it for what it represents: erasure itself. He compares the text to the Wailing Wall in Jerusalem as the last fragments of a history—fragments whose presence signify the absence of everything else that could have been but had been destroyed, or what Safran Foer calls "the infinite expressions of infinite thoughts and feelings taking infinite forms" (138). Through the erasure of a person and a group of people, not only are histories and possible futures lost, but also the ability to think about, remember, reflect upon, and represent these histories and futures. And while *Street of Crocodiles* and *Tree of Codes* do not refer to this loss in their content, both texts symbolize it: the former through its singularity as a remaining text and the latter through its exploration of *Street of Crocodiles* as a text of erasure.

I must clarify that I am not equating the histories and lives lost through genocide with anxieties and losses felt by literary tradition. Rather, I am interested in exploring connections in erasure as an act of reclamation and a rewriting, a furthering even, of memory and reflection through the future literary. I find an origin point of discussion through a double sensibility in Safran Foer's work: his investment in representing loss both as someone with personal ties to human atrocity and as a contemporary author who grapples with the text in its traditional form. Safran Foer is known for his experimental works, which are arguably symptomatic of the contemporary writer being overwhelmed with choice in a way that Moody's own work articulates. Safran Foer's method of representing this abundance is by drawing attention to it as a textual struggle that is illustrated in intermedial play on material paper.

Hence, *Tree of Codes* removes text, becoming barely readable, as there is hardly a complete sentence, and only bits and pieces of ideas and information. In this way, physical erasure appears to form a text that is meaningless, as the act of choosing what to erase threatens to implode meaning in the same way as Moody's writing-through-selection. However, representations of erasure imbue the text with meaning, particularly through Foer's investment to reflect upon that which is not remembered or cannot even be accessed.

It is erasure that allows *Tree of Codes* to participate in the future literary, foregrounding the significance of memory, history and reflection for such examples of contemporary literature. While the notion of erasure may seem juxtaposed from memory or reflection, in fact, Safran Foer offers a testament to that which has been erased by himself further erasing, drawing attention back to the original text's weight and brevity—its ability to stand for that which had been unwanted and which was destroyed to make room. Erasure engages in a performance of continuation, displaying its own absence, such that we can say that a text that itself represents

erasure has living, presence, and remembrance to regain.

Rewriting "The Text": The Materiality of the Digital

In these ways, examples of the future literary in action speak to different approaches not only to thinking of history, but also to engaging with and writing history. Derrida (2009) articulates different ways of "thinking history, of doing history, of articulating a logic and a rhetoric onto a thinking of history"; included in his scope of texts to re-read this way are what he calls texts that are not "even books at all" (332-3).

Here, I turn to an inquiry of the future literary for how it approaches the problem that, in the vein of the eternal "now" and eternal "new," history "is obsolescence." The future literary proposes a way of reclaiming history by remembering the manner in which it is erased. Yet, in the attempted act of reclaiming, it must be said that history itself is changed, as the act of remembering is simultaneously the act of rewriting: the past can be present only in the present moment and only through the change. In this regard, Derrida's proposal for alternative ways of thinking about history provokes an interesting turn of perspective, requiring the perusal of how we think of "the text" in the first place and of the *legibility* of its rethinking.[37]

The purpose of the intermedial and of an intermedial hermeneutics in this dissertation has been to discuss medium specificities, affordances and limitations, materialities, and histories—and the reader's renewed focus on these elements. Applying this study more broadly, the intermedial can unearth other ways of reading what is before our eyes and in our hands that might otherwise be missed because it does not fall under the traditional categories of what we consider to be legible "text"—and this includes, I argue, the materiality of the digital.

[37] Thank you to Michelle O'Brien for her helpful suggestions that produced this idea.

In the process writing this dissertation, I have asked myself if there is a materiality of the digital. And the answer is *of course there is*: materiality abounds in digital media through the physical devices that a user engages with, the hardware within, the resources of out which they are constructed, and the people who and machines that construct these devices and gather these resources.[38] The invisibility of these materialities is something I have sought to uncover by underlining the processes through which their visibility is erased. My focus on the effect of immediacy, however, can also be expanded through a consideration that inscriptive media and functions, in helping to shape the epistemologies of historiocultural periods, establish standards of representation that equally train us in what counts as consumable or legible "text."

It is through the aim of immediacy that we can, for example, understand the abstraction of content at the level of reception over the stages of inscription—an abstraction that can in turn be used to explain Daniel Punday's observation of a shift in analytical and creative focus from the novel (form) to the narrative (content) (35). Hans Gumbrecht identifies a similar abstraction in the "'devaluation of any material surface as secondary in relation to subjective interiority'" (qtd. in Tabbi and Wutz 3). In enabling the reader to focus on the devaluation and erasure of material instantiation, an intermedial hermeneutics highlights the agency of the reader. In the context of Liu's observation of a division between the levels of production/transmission and reception of content, dissecting the experience of the reader-user can offer a more intricate understanding of the level of reception: material delivery (the presence of content on the screen) can be thought of as a different *moment* from material reception (the moment of reading), as the

[38] See Mel Chen's *Animacies* (2012) for their fascinating analysis of the globalized politics of materiality. Specifically, Chen delineates the place of resources such as iron over "there" in developing countries and their removal from the awareness and presence of people over "here" in Western countries, which must be protected from its toxicities and dangers. Thank you to Michelle O'Brien for bringing this connection to my attention.

latter accounts for the reader-user's experience of hapticity, kineticism, and affect in reading.

In a conversation with e-literature pioneer Marjorie Luesebrink (*nom de plume* M.D. Coverley) about the element of materiality in the digital, she told me that materiality is "there in the bright yellow" of the screen, but that we do not receive it that way. We do not read its code—for instance, #FFFF00 or rgb(255, 255,0)—or process its matter, but rather, are trained to read how it backgrounds the words or dominant images, "the text" to be consumed. She continues, "some critics may declare that a piece is not immersive, but even media critics can be swayed by the hierarchy of text, where text is present. In this sense, we risk missing so much, as if there is no affect exerted by the bright yellow, disregarding it in favour of what 'the text' is." Following her argument, I must agree that we are sympathetically trained to read for words, images, and objects, and not what they are made out of. And this is the significance of the intermedial: in revealing acts of inscription, it reveals many other angles from which we can view text that do not need to fall under the traditional framework of "the text"—an understanding of texts that are not "even books at all."

Against a rich ecology of media in encounter, what an intermedial hermeneutics encourages as a way to reveal erasure and unearth materiality is an emphasis on the reader's material encounter with media. Treating media as networked nodes in a media ecology, the time it takes to compare and juxtapose one node to another is a potential moment for the reader's material engagement with media, whether those media are digital or predigital. It is a contemplation, occurring as a weight and wait. What is in between media, then, is the necessary moment of material reception when we see in and over different media *the bright yellow*, hear its vibrant and vibrating timbre, feel its saturation on our fingertips, smell its brightness, and taste bright yellow in our mouths.

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