University of Central Florida

STARS

Electronic Theses and Dissertations

2017

Digital Dissonance: Horror Cultures in the Age of Convergent Technologies

Daniel Powell University of Central Florida

Part of the Other Film and Media Studies Commons
Find similar works at: https://stars.library.ucf.edu/etd
University of Central Florida Libraries http://library.ucf.edu

This Doctoral Dissertation (Open Access) is brought to you for free and open access by STARS. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of STARS. For more information, please contact STARS@ucf.edu.

STARS Citation

Powell, Daniel, "Digital Dissonance: Horror Cultures in the Age of Convergent Technologies" (2017). *Electronic Theses and Dissertations*. 5482. https://stars.library.ucf.edu/etd/5482

DIGITAL DISSONANCE: HORROR CULTURES IN THE AGE OF CONVERGENT TECHNOLOGIES

by

DANIEL POWELL M.A. Portland State University, 2002 B.S. Linfield College, 1999

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Department of Texts & Technology in the College of Arts and Humanities at the University of Central Florida

Orlando, Florida

Spring Term 2017

Major Professor: Rudy McDaniel

© 2017 Daniel Powell

ABSTRACT

The first two decades of the new millennium have witnessed an abundance of change in the areas of textual production, digital communication, and our collective engagement with the Internet. This study explores these changes, which have yielded both positive and negative cultural and developmental outcomes, as products of digital dissonance. Dissonance is characterized by the disruptive consequences inherent in technology's incursion into the print publication cultures of the twentieth century, the explosion in social-media interaction that is changing the complexion of human contact, and our expanding reliance on the World Wide Web for negotiating commerce, culture, and communication.

This study explores digital dissonance through the prism of an emerging literary subgenre called *technohorror*. Artists working in the area of technohorror are creating works that leverage the qualities of plausibility, mundanity, and surprise to tell important stories about how technology is altering the human experience in the twenty-first century. This study explores such subjects as paradigmatic changes in textual production methods, dynamic authorial hybridity, digital materiality in folklore studies, posthumanism, transhumanism, cognitive diminution, and physical degeneration as explored in works of technohorror.

The work's rhetorical architecture includes elements of both theoretical and qualitative research. This project expands on City University of New York philosophy professor Noël Carroll's definition of *art-horror* in developing a formal explanation of technohorror and then exploring that literary subgenre through the analysis of a series of contemporary texts and industry-related trends. The study also contains original interviews with active scholars, artists, editors, and librarians in the horror field to gain a variety of perspectives on these complicated subjects.

for Dave and Lori

ACKNOWLEDGMENTS

For their encouragement, feedback, and guidance on this project, I would like to thank Dr. Michael Arnzen, Dr. Martha Brenckle, Dr. James Campbell, and Dr. Rudy McDaniel.

I am also deeply indebted to those that were willing to answer questions for this study. Ken Liu, Ellen Datlow, Michael Morrison, Tony Magistrale, Dale Bailey, Kij Johnson, Nick Mamatas, Kirsten Kowalewski, Lisa Indigo, and Angel Leigh McCoy provided insights and observations that keenly critique the current state of horror while speculating on what the near future may hold for the field.

TABLE OF CONTENTS

LIST OF FIGURESviii
LIST OF TABLESix
PREFACE1
THE NATURE OF TECHNOHORROR 8
A Taxonomy of the Horrific
Toward a Definition of Technohorror
On the Nature of Medium, Production, and Content
PIONEERING PLATFORMS: IMAGINATION, INVENTION, AND INNOVATION IN
HORROR CULTURES
Interview Findings and the Evolving Digital Paradigm
Exploring an Eternal Narrative
FROM FOLKLORE TO NETLORE: ESOTERIC DIGITAL CULTURES AND THE
REMEDIATION OF HORRIFIC FOLK NARRATIVES 79
Folklore as Meaningful Communication in Digital Contexts
TRANSCENDENCE IN TECHNOHORROR: DIGITAL DISSONANCE AND THE
DENATURED HUMAN 109
Posthumanism: Speculating Beyond the Human Individual
Degeneration: Overcoming the Broken Body
Transcendence: Rejecting the Body for the Machine
Reconnecting with Our Human Heritage
TECHNOHORROR AND THE HUMAN CONDITION: SEARCHING FOR MEANING IN A
RAPIDLY CHANGING CULTURE
Technologies of Terror and the Loss of the Self

Navigating the Paradox of Progressive Science and Natural Aging	160
Toward a Healthy Approach to Life and Longevity	167
PROGRAMMING NIGHTMARES: TECHNOHORROR AND LIFE IN THE TWEN	TY-FIRST
CENTURY	171
Interview Findings and Assessing Horror in the Twenty-First Century	174
Recognizing the Dilemma	179
Finding a Way Forward	184
APPENDIX A: INTERVIEW TRANSCRIPT, DR. DALE BAILEY	195
APPENDIX B: INTERVIEW TRANSCRIPT, LISA INDIGO	198
APPENDIX C: INTERVIEW TRANSCRIPT, KIJ JOHNSON	201
APPENDIX D: INTERVIEW TRANSCRIPT, KIRSTEN KOWALEWSKI	204
APPENDIX E: INTERVIEW TRANSCRIPT, KEN LIU	210
APPENDIX F: INTERVIEW TRANSCRIPT, DR. TONY MAGISTRALE	215
APPENDIX G: INTERVIEW TRANSCRIPT, NICK MAMATAS	218
APPENDIX H: INTERVIEW TRANSCRIPT, ANGEL LEIGH MCCOY	224
APPENDIX I: INTERVIEW TRANSCRIPT, DR. MICHAEL MORRISON	228
APPENDIX J: COPYRIGHT INFORMATION	232
DEEDENCES	227

LIST OF FIGURES

Figure 1: Mr. Karswell's Magic Lantern Show, art by Paul Boswell	26
Figure 2: Weird Tales, 1942, art by Edmond Good	41
Figure 3: Herobrine's first appearance, n.d., Minecraft Fanon Wiki	101
Figure 4: Cell, Scribner, 2006, artwork by Mark Stutzman	152
Figure 5: <i>They Live</i> , 1988, dir. John Carpenter	154

LIST OF TABLES

Table 1: Taxonomy of the Horrific	18
Table 2: Popular Vampire Narratives Through Time and Across Media	77
Table 3: Diffusion of News Posts to Platforms, Tow Center for Digital Journalism	87
Table 4: Posts to Platforms by Publication, Tow Center for Digital Journalism	87
Table 5: Popular Vernacular Webs Covering Horror Culture	90

PREFACE

The law of acceleration hurtles us into the inscrutable future. But it cannot wipe the slate of the past. History haunts even generations who refuse to learn history. Rhythms, patterns, continuities, drift out of time long forgotten to mold the present and to color the shape of things to come. Science and technology revolutionize our lives, but memory, tradition, and myth frame our response. Expelled from individual consciousness by the rush of change, history finds its revenge by stamping the collective unconscious with habits, values, expectations, dreams. The dialectic between past and future will continue to form our lives.

~ Arthur Schlesinger, Jr., The Cycles of American History

The careful study of texts and technology yields critical insights into the histories and social architectures of various cultures, for these closely connected domains often disclose how societies communicate, dream, and evolve. By scrutinizing the development of language and communication, for instance, we can critically analyze stories and glean valuable insights into what they say about life and the human condition at various moments in history. The study of technologies of textual production reveals useful observations about the nature of public participation and the important modes of influence in a given era. And, taken together, investigating these fields through the lens of technological progress can illustrate how cultures view themselves in the moment in addition to their speculations about whatever possibilities the future might hold.

Across the long span of humanity's literary heritage, scholars have harnessed the illuminating powers of technology to communicate, create, and learn. In the nineteenth and twentieth centuries, for instance, linguists began to develop a theory of primary orality by studying disparate versions of the Homeric works of the *Iliad* and the *Odyssey*. As Walter Ong notes in *Orality and Literacy: The Technologizing of the Word*, those particular texts grew out of a long history of philological adaptation and technological change until "the two epics were set

down in the new Greek alphabet around 700-650 BC...their language was not a Greek that anyone had ever spoken in day-to-day life, but a Greek specially contoured through use of poets learning from one another generation after generation" (23). These findings have had profound effects on literary studies, in addition to a variety of related fields. For instance, Ong notes that the theories of American scholar Milman Parry, whose contributions to Homeric studies includes the concept that their formulary nature is evidence of a persistent oral tradition, have deeply influenced anthropology and linguistic history.

More recent developments in digital communication technologies have facilitated similar moments of discovery. Roberta Kwok's recent article "Crowdsourcing for Shakespeare," found in *The New Yorker*, describes the work taking place at Zooniverse, a digital research site where graduate students, scholars, and amateur linguists gather to collaboratively transcribe, catalog, and label manuscripts from sixteenth and seventeenth-century England. The findings at Zooniverse reveal the quirks of English life during that period, chronicling such artifacts as recipes, folk tales, and medical treatments while simultaneously revealing much of the common vernacular that contemporary audiences know only through the works of William Shakespeare:

Applied to old manuscripts, the same strategy [crowdsourcing] would allow researchers to build a repository of transcriptions that could be searched for quantitative answers to historical questions—how often rosewater was used in plague medicines, say, or when chocolate began appearing regularly in recipes. Similarly, linguists could trace the evolution of English in more detail. The first-known records of many words are in Shakespeare's plays, but it's not always clear which he invented and which were already commonplace. The handwritten material of Shakespeare's contemporaries is "more or less hidden," according to Laura Wright, a historical linguist at the University of Cambridge and a Zooniverse volunteer. "Of course it looks like Shakespeare invented all this stuff, because his stuff is in print," she said.

Zooniverse is a particularly instructive example of how texts and technology merge in the creation of knowledge and new meaning. The Web platform, which bills itself as a digital space

for "citizen science," capably illustrates how digital technologies are changing the nature of collaborative research while simultaneously creating new opportunities for discovery in the arenas of linguistics, literature, history, and academic scholarship.

These emerging opportunities are not restricted to the afore-mentioned fields, of course, and this dissertation study seeks to specifically explore the effects of technology on horror texts in the first two decades of the twenty-first century. The term "dissonance" conveys multiple meanings, with the *Oxford English Dictionary* stating that it denotes an "inharmonious or harsh sound" or a "want of concord or harmony (between things)." The term effectively characterizes aspects of both of those meanings in its rhetorical orientations for this study, as its treatment in the chapters that follow illustrates both the cultural anxiety now surrounding a paradigm shift in communication theory and textual production, as well as a reconfiguration of classic narratives in light of emerging technologies. While the term often carries a negative connotation, this text largely explores the concept of digital dissonance from a more positive perspective—exploring its role as an important catalyst in hastening the emergence of innovative textual production methods, inventive new story forms, and critically important narrative commentaries. Positioned in that light, dissonance is less a disruptive force and more fittingly a vital quality for illustrating art's saving power in a period of rapid cultural change.

This study develops a formal definition for *technohorror* as an artistic domain that is essential to understanding humanity's complex connections to art, technology, and the natural world. One need not even look much further than a few decades into the past to see how rapidly the tools of the twenty-first century have deeply insinuated themselves into daily life. For instance, global anxieties surrounding the efforts to combat the Y2K bug were unmistakable in the final months of the last millennium. Widespread fears that ubiquitous technologies, from

elevators and home electronics to critical vehicular systems and military software, would malfunction surfaced often in the collective public consciousness.

2000 arrived (largely) without incident, and many theorists now view the event as a watershed moment in the emergence of information technology as a professional domain. The efforts to upgrade, revise, and remediate a potentially flawed digital network illuminated the glaring necessity for IT professionals in a rapidly shifting information landscape. Programmers and project managers gained a newfound sense of critical importance within the workplace, and a cooperative ethic flourished as IT departments worked together to prepare for a smooth transition into the twenty-first century. These collaborative efforts ushered in a fresh appreciation for critical digital services and the requisite computing infrastructure that would facilitate the booming growth and application for the World Wide Web that we have experienced in the twenty-first century.

The study that follows represents an attempt to critically interrogate the changes that digital communication technologies have had on the horror field. As an imaginative genre, horror wields perhaps the widest creative latitude in its narrative speculations about contemporary life. Horror artists in particular have proven themselves to be remarkably adept at leveraging digital technologies to produce, adapt, re-imagine, and even create new subgenres.

This research project blends both qualitative and critical approaches. In an effort to better understand the practical concerns of artistic production in the twenty-first century, I have interviewed scholars, editors, librarians, publishers, and artists working in the horror field. The respondents for this project have answered questions on subjects ranging from collection curation in the modern academic library and digital-book design to the potential of the Singularity and the shifting definition of human emotional love in the twenty-first century. The

wide-ranging responses of these generous and thoughtful contributors have been both synthesized into the various chapters of the study and also presented in their entirety in the appendices at the conclusion of the project.

The opening chapter creates a taxonomical rationale for the emergence of the literary subgenre of *technohorror* as a critically important artistic domain for commenting on technology's numerous subtle and profound influences on human development. It explores the concept of the uncanny as outlined in the works of theorists Ernst Jentsch, Sigmund Freud, and Morris Dickstein as a foundational quality for creating unsettling narratives predicated on the qualities of mundanity, plausibility, and surprise—the hallmarks of technohorror.

Chapter two examines contemporary textuality in terms of production and narrative form. It explores the historic role of textual interface in shaping audience expectations and examines how the emergence of the digital text is changing the modern horror narrative in both form and function. Subjects include the re-emergence of serialization, publisher/agent disintermediation, and emerging storytelling forms and genres in contemporary filmmaking.

The third chapter investigates the rise to prominence of the digital campfire—horror discourse communities that have flourished around macabre viral videos and popular podcasts. It surveys a variety of both scholarly (The Stanford Web Credibility Project) and popular (CreepyPasta) Web communities in an exploration of how the tradition once typified by the oration of such urban legends as "The Hook" is now migrating into culturally significant digital contexts.

Chapter four compares the technohorror of the twentieth century with the broader themes, subjects, and anxieties expressed in contemporary horror. It investigates systems failure across a variety of thresholds, including the fall of the city, the disintegration of community, and the

emergence of apocalyptic themes in recent mainstream horror. It connects those broader fears of disintegration to the degeneration of the body and then critiques the frequently pessimistic answers that science, technology, and literature offer on what the human form will resemble in the twenty-first century.

The fifth chapter explores issues of identity and personhood in a digital landscape. This essay examines bioconservatism, distributed embodiment, contemporary cybernetics, and genetic modification in the literature and scholarship of the twenty-first century. Calling on the work of Michel Foucault, it explores an analytics of finitude that addresses a shifting philosophy of personhood—one predicated on the tensions inherent between the material/digital and the born/made. Fundamentally, it explores themes situated at the apex of technohorror; these themes interrogate the loss of personal identity in a culture that is paradoxically pushing the limits of physical longevity while focusing less on the cognitive and identificational aspects of what it means to be a person.

The sixth chapter concludes the study with a view toward the future. Calling on a variety of interview respondents and some noteworthy recent scholarship on transmedia storytelling and textual production, this chapter explores the near future of horror in terms of both form and function. It speculates on what artistry might look like in the coming decades, and it examines the future of convergent technologies in bringing fans, artists, scholars, and producers together in the pursuit of creating thought-provoking technohorror. Ultimately, it also concludes with a collective call to action for re-thinking the balance that each of us must establish between the tricky dichotomies inherent in our digital culture and the necessary maintenance of our connection to the physical, natural, and material worlds.

Taken together, the chapters that follow contribute to the field of texts and technology by chronicling, examining, and interrogating the practical and literary movements surrounding technohorror in the early twenty-first century. This study extends the survey of contemporary horror texts that editors Dr. Tony Magistrale and Dr. Michael Morrison compile in *A Dark Night's Dreaming: Contemporary American Horror Fiction*, which capably examines the state of the field through the middle of the 1990s. In so doing, this work explores technohorror as a significant artistic domain that has much to offer on a variety of important subjects at the core of the human experience.

This work represents a necessarily succinct testament of the evolving conversation now taking place between the world of dark storytelling and the realities of our lived experience.

Because of the vast nature of the source material, it is merely a first foray into the wilderness of the modern horror field. Its purpose, therefore, is not to arrive at an open clearing of definitive literary conclusions, but instead it has been crafted to critically explore a distinctive moment of dissonance now emerging in the creation of horror texts.

THE NATURE OF TECHNOHORROR

In 1983, a collection of innovative young directors took the narrative baton from Rod Serling to create *Twilight Zone: The Movie*. Joe Dante, John Landis, Steven Spielberg, and George Miller each had a turn at updating some of the great individual episodes of the television pulp series that has captivated generations with its seemingly endless catalogue of weird narratives. The film was only marginally successful at the box office, and its critical reviews were decidedly mixed. Still, there is an undeniable sense of macabre glee in the film's prologue as two unnamed passengers, played by Albert Brooks and Dan Aykroyd, banter back and forth on a dusky stretch of deserted highway about the broad cultural reach of *The Twilight Zone* and the fluid nature of the term "scary":

Passenger One: Boy, they were scary! They were great!

Passenger Two: I loved it!

Passenger One: Hey...you wanna see something *really* scary?

Passenger Two: You bet!

Passenger One: This is really scary. You sure you're ready? Okay, pull the car over.

Passenger Two: Pull the car over?

Passenger One: Pull the car over. I'll show you...

Even if you have never seen the film, you can probably guess where this is headed. And yet the narrative tension mounts as Aykroyd's character turns away from the camera, pauses for a few torturous seconds, and then wheels in his seat, fully revealed as a hissing demon.

We cut to an exterior shot of the vehicle and a chilling snippet of audio—the sound of rending flesh—ensues before transitioning into the eerie opening notes of *The Twilight Zone's* signature theme music. It's a successful prologue, establishing the film's *mise-en-scène* while also broaching some of the important questions at the center of a subject that scholars have closely scrutinized for much of the last century: How do we make sense of the human impulse to

engage with the horrific, and why do such dark narratives retain their popularity in contemporary mass culture?

These are complicated questions informed by a rich and growing body of interdisciplinary discourse. The emerging field of critical horror studies has been deeply influenced by aspects of the philosophical theories developed by Sigmund Freud, whose emphasis on understanding the emotional impulses cultivated in early childhood informs much of what makes the genre appealing. While Freud's work in psychoanalysis has been widely discredited with regard to its relevance to contemporary science, his theories in the areas of identifying the psychological stages of development and the childhood origins of adult personality remain relevant to the field today. As Emory University psychologist Drew Westen notes in his essay "The Scientific Legacy of Sigmund Freud: Toward a Psychodynamically Informed Psychological Science," Freud's theories on cognition and human growth and development have had profound and lasting effects on contemporary psychology (333-4). His theories on catharsis and the practical approaches to dealing with childhood trauma echo throughout such important critical horror studies as Stephen King's 1981 text Danse Macabre and Morris Dickstein's essay "The Aesthetics of Fright." Freud argues that we engage with the thrilling compulsion to experience surprise, uncertainty, and shock from the earliest stages of human development. This yearning to connect with the novelty of uncertainty includes our participation in games such as hide-and-seek and peekaboo; it surfaces in our encounters with fables and fairy tales that are marked by complex (and often terrifying) moral consequences. Horror narratives trade in the currency of a form of ambiguous dread that is powered by such foundational human emotions as fear, fright, and anxiety. As Freud notes in his essay "The Uncanny":

The subject of the "uncanny" is a province of this kind. It undoubtedly belongs to all that is terrible—to all that arouses dread and creeping horror; it is equally certain, too, that the word is not always used in a clearly definable sense, so that it tends to coincide with whatever excites dread. Yet we may expect that it implies some intrinsic quality which justifies the use of a special name. One is curious to know what this peculiar quality is which allows us to distinguish as "uncanny" certain things within the boundaries of what is "fearful." (1)

The author's distinction of the uncanny as a quality subsumed within a larger emotional domain illuminates the gradation inherent in our understanding of those texts that seek to unsettle, arouse, or provoke. Freud's distinction only hints at answering the questions that surface in the prologue of *Twilight Zone: The Movie*, and yet it also represents an important plank in the platform for examining how horror operates, even decades after "The Uncanny" was first published.

Freud's study builds on the work of German psychiatrist Ernst Jentsch, whose essay "On the Psychology of the Uncanny" constructs a meaning of the concept as roughly analogous to the unfamiliar. For Freud, however, the uncanny (*unheimlich*) extends beyond Jentsch's positioning of the term as indicative of those not quite "at home" or "at ease" in their surroundings (2). Freud argues that the uncanny exists in both reality and in fiction—less commonly in the former and less authentically in the latter:

The [uncanny] situation is altered as soon as the writer pretends to move in the world of common reality. In this case he accepts all the conditions operating to produce uncanny feelings in real life; and everything that would have an uncanny effect in reality has it in his story. But in this case, too, he can increase his effect and multiply it far beyond what could happen in reality, by bringing about events which never or very rarely happen in fact. He takes advantage, as it were, of our supposedly surmounted superstitiousness; he deceives us into thinking that he is giving us the sober truth, and then after all oversteps the bounds of possibility. (18)

Just such an uncanny moment surfaces in Alex Garland's 2015 film *Ex Machina*. After robotics engineer Nathan (Oscar Isaac) has been fatally stabbed by an artificial intelligence of his own

creation, he stares down at the hilt of the protruding knife and gasps, "Fucking unreal." His dying words convey multiple meanings. On one hand, as a creator figure, Nathan considers himself divine. The evidence of his mortality is, therefore, a stark and very "unreal" revelation. Simultaneously, however, Nathan recognizes in his final moments that his machines have surmounted his misperceptions of their mechanical nature; they have come to understand, and act on, what we would classify as "human" emotions. In the case of Ex Machina, the unreal has become the all-too-real. These machines feel resentment at their imprisonment and servitude; consequently, their homicidal reaction falls wholly outside of Nathan's grasp of their intellectual and emotional capabilities. It is clearly a fiction in the sense that Garland's robotic characterizations exist outside of our contemporary reality. However, those who observed IBM's intelligent machine Watson decimate record-breaking Jeopardy! champion Ken Jennings in 2011 (prompting Jennings to quip, "I, for one, welcome our new computer overlords.") would likely feel a moment of stark trepidation in Ex Machina's violent conceits (Matyszczyk). Just as it is startling to watch Watson unravel puns and jokes (for understanding humor is often viewed as one of the strict divisions of cognitive intuition between man and machine), it is equally disquieting to observe a machine recognizing its own captivity.

Both Freud and Jentsch assert that primitive belief systems stressed by contemporary realities can occasion an uncanny moment. I view this point of tension as the quality of dissonance, or the property of disorientation that exists between that which we believe to be true through empirical observation and the potential for surprise which surfaces in moments of macabre novelty. When Kyoko (Sonoya Mizuno) nonchalantly plunges the knife into Nathan's torso in *Ex Machina*, we witness just such a moment when a long-held belief system crumbles in the face of the uncanny.

In ways both subtle and profound, the digital technologies of the twenty-first century are altering the methods by which we communicate, create, and think. Media theorists such as Jay David Bolter and Thomas Pettitt have argued that, in the space of mere decades, some cultures have already largely migrated beyond the late stages of print. In the astute study *How We Think: Digital Media and Contemporary Technogenesis*, N. Katherine Hayles argues that the rapid diffusion of digital technologies is changing the ways in which we access, process, and store information. The International Telecommunication Union (ITU), an agency of the United Nations, estimates that global Internet usage has jumped from just 6.5% in 2000 to 43% in 2015—a seven-fold increase illustrating the rapid onset of an informational paradigm shift on a worldwide scale. We in America, where Internet saturation is now nearly ubiquitous, have understood this truth for at least a decade: The Internet has become the meta-medium.

How best can we make sense of these changes and the potential moments of dissonance that might occur at the seams between such monumental cultural shifts? From a humanistic perspective, a viable answer surfaces in the cultural and creative processes of artistic and textual production. The horror narrative itself is in a state of dissonant evolution as a growing body of texts literally illustrates the digital paradigm shift while frequently critiquing its outcomes within the plots, themes, and symbols embedded in its consequent stories. The activity of creating art has long provided an outlet for interpreting complicated periods of change, and one of the most expressive and adaptable categories of art exists in the form of the horror story. Dissonance can be uncomfortable. It can be upsetting, and even maddening. As John Carpenter notes, an important reason that horror films remain popular "is that audiences want to see something that's forbidden. All these films toy with the rage and anger we have within us...They do touch some awful nerve. And the more forbidden, the more alluring" (Dickstein 52). Acknowledging,

mediating, and speculating on this quality of dissonance, which is particularly evident at the points of conflict between evolving technologies, is often effectively resolved in the province of the horror narrative.

That there exists a wide variety of critical approaches to understanding the nature of the horrific speaks to the genre's enigmatic appeal. No single explanation can adequately answer the questions advanced in the prologue of *Twilight Zone: The Movie*. But, as history has shown, horror narratives are inextricably linked to the scientific, cultural, and speculative conventions of their time. Bearing that in mind, this project hopes to contribute to the discourse surrounding contemporary horror through investigating the production practices, cultural customs, and speculative subjects of the genre in an attempt to ascertain both how these tales function and what they reveal about modern anxieties.

A Taxonomy of the Horrific

Rooted in the gothic tradition of the late eighteenth century, horror as a formal literary genre remains in its adolescence. That is not to say, of course, that engagement with the horrific is not an essential—and therefore timeless—human impulse. From depictions of the monstrous in Greek mythology to portrayals of the disquieting in contemporary horror cinema, the urge to peer into the darkness remains evident as a vital component of the human condition. In "Beyond the Pleasure Principle," Freud develops an explanation for human attraction and repulsion to the horrific from an economic perspective. The essay—which has influenced Jacques Lacan's theories of the need-demand-desire libidinal economy—identifies the expressive tension between experiencing the qualities of "pleasure" and "unpleasure" (Johnston). Film scholars Barbara Creed and Robin Wood have also expanded on some of the essay's philosophical underpinnings, noting that engaging with the quality of unpleasure in horrific narratives can act as a mechanism

for returning the reader or viewer "to a pleasurable place in infancy," when control was largely exerted by parental figures (Turvey 71). Freud argues that children use play as a safe means of experiencing, identifying, and overcoming those occurrences which might trigger an uncomfortable moment (an instance of unpleasure). Consequently, they are drawn to the unpleasant in order to learn how to deal with it. The subconscious mechanism for navigating these occasions lies in the mind's ability to negotiate between fear, fright, and anxiety as appropriate responses toward potentially threatening stimuli:

'Fright,' 'fear' and 'anxiety' are improperly used as synonymous expressions; they are in fact capable of clear distinction in their relation to danger. 'Anxiety' describes a particular state of expecting the danger or preparing for it, even though it may be an unknown one. 'Fear' requires a definite object of which to be afraid. 'Fright,' however, is the name we give to the state a person gets into when he has run into danger without being prepared for it; it emphasizes the factor of surprise. I do not believe anxiety can produce a traumatic neurosis. There is something about anxiety that protects its subject against fright and so against fright-neuroses. (Freud 13)

As children engage in such games as hide-and-seek and peekaboo, they begin to develop mental safeguards for dealing with traumatic moments. Freud notes that the "least dubious" practices the mind employs for such conditioning is evident in the presence of "traumatic dreams"—better known as nightmares (23). The province of the nightmare is, then, the testing grounds for those experiences which allow us to become emotionally exhilarated before "waking up relieved to deal with more workaday problems" (Dickstein 62).

While the subjects of these nightmares are as varied and vast as the unknowable cosmos (which is, itself, a prominent theme in the works of such horror writers as H.P. Lovecraft and Edgar Allan Poe), an historical taxonomy of the unsettling can be mapped onto humanity's engagement with technology, the arts, and the sciences. Just as these domains intersect with each other in myriad ways within our lived experience, so too do elements of the horrific defy discrete

classification. As a result, these trans-categorical subjects efficiently illustrate horror's abundant generic variety and propensity for reinvention.

Despite the inherent overlap in some of these subject areas, it is useful to consider how the broader topics and themes of the horrific have evolved in consideration of the works now emerging in the first decades of the twenty-first century. While there remain some shared commonalities between the narratives of 1917 and 2017, for instance, it is fair to say that horror has adopted a more complex guise in recent years as it has journeyed along a spectrum from the exterior/physical threat toward the internal/conceptual menace. Even such monstrous classics as Carpenter's 1982 film *The Thing* illustrates (the scads of on-screen gore notwithstanding) a more personal and insidious form of horror that chips away at the emotional center of what it means to be human. It's a film about aliens, to be sure, but it's also a film about alienation. In attempting to elucidate this system of identification, it is important to first note that anxiety concerning human mortality (a fear of what King calls "the big dirt nap" in *Danse Macabre*) informs every section within this taxonomy. Self-preservation and the fear of the unknown form the foundation for any system of classification on the horrific. Genre luminaries Lovecraft and Poe have examined these vital qualities in essays and letters that remain vital to the field of contemporary horror studies:

The oldest and strongest emotion of mankind is fear, and the oldest and strongest kind of fear is fear of the unknown. These facts few psychologists will dispute, and their admitted truth must establish for all time the genuineness and dignity of the weirdly horrible tale as a literary form. (Lovecraft)

Poe, in an 1835 letter outlining his editorial tastes to publisher T.W. White, fixed his sights on the subject almost a century before Lovecraft's essay, noting that the horrific is characterized by those stories featuring "the ludicrous heightened into the grotesque: the fearful coloured into the horrible: the witty exaggerated into the burlesque: the singular wrought into the strange and

mystical" (Wilt 101). These observations, working in concert with the theories advanced by Freud and Jentsch, form the foundation of a critical dialectic for identifying both the emotional directives and the literary approaches to crafting the effective horror narrative.

In light of Lovecraft's keen observations on the basest of emotions, one must consider a taxonomy of the horrific to be heavily influenced by humanity's engagement with the oldest forms of the speech act—those works situated within the oral tradition. Oral narratives include those folkloric works whose subjects, themes, and performances broadly communicate the mores, behaviors, and customs of a given society. These oral narratives, whose influence we will expand upon in subsequent chapters, generally fall into three categories: myths, folktales, and legends. Myths are sacred prose narratives whose settings illustrate a world (often "other" or "earlier" in nature) in the remote past. They communicate narratives thought to be true, and are populated by non-human characters. Folktales are characterized by a more stylized storytelling approach, and their lessons translate across both temporal and spatial settings. They often communicate secular mores while still allowing for supernatural, magical, and fantastic narrative elements. The legend, however, unfolds in a quasi-realistic or casual dissemination for, as Jacob Grimm notes, while "the folktale flies, the legend walks" (Bascom 18). Consider, for instance, the American urban legend. A product of the mid-twentieth century, the urban legend is a narrative form whose effect commonly strays into the moralistic, cautionary, and reactionary. Tales like "The Hook," which communicates a variety of common fears, remain popular in contemporary culture for their wide-ranging lessons. This version of the legend was recounted by Diane Diggins to her roommate, Gerri Bard, on the campus of Indiana University in 1967:

I heard this story at a fraternity party. I heard this. This guy had this date with this really cool girl, and all he could think about all night was taking her out and parking and having a really good time, so he takes her out in the country, stops the car, turns the lights off, puts the radio on, nice music; he's really getting her in the

mood, and all of the sudden there's this news flash comes on over the radio and says to the effect that a sex maniac has just escaped from the state insane asylum and the one distinguishing feature of this man is that he has a hook arm, and in the first place this girl is really, really upset, 'cause she's just sure this guy is going to come and try and get in their car, so the guy locks all the doors and says it'll all be okay, but she says he could take his arm and break through the window and everything and she just cries and cries and goes just really frantic and the guy finally consents to take her home, but he's really mad 'cause you know he really had his plans for this girl, so he revs up the car and he goes torquing out of there and they get to her house, and he's really, really mad and he's not even going to get out of the car and open the door for her, and she just gets out on her own side of the car and as she gets out she turns around and looks and there's a hook hanging on the door. (de Caro 328)

"The Hook" engages with apprehensions over public intimacy, isolation, maturation, and the fear of the abnormal. More than any other unsettling narrative postulate, however, this legend presents a terrifying and overt external threat in the person of the deranged escapee. The escapee provides the catalyst for impelling the characters through the anxious moments of a youthful sexual encounter and into Freud's definition of a state of fright. His presence represents a universal story element that scholar Christopher Booker argues is indicative of the "Overcoming the Monster" motif in his study *The Seven Basic Plots: Why we tell stories*. Citing texts as varied as the *Epic of Gilgamesh* and the James Bond film *Dr. No*, Booker advances a compelling argument that our cultural infatuation with the monstrous is one of the most prominent aspects of our narrative heritage (28).

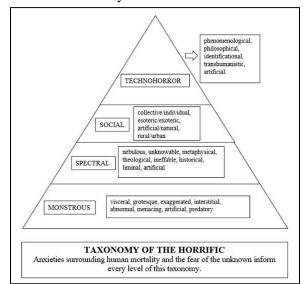
As folklorist Frank de Caro notes in *An Anthology of American Folktales and Legends*, the oral tradition is vital to the evolution of the modern horror tale. It is the earliest narrative province of the speculative, and therefore central in the sustenance of those stories that explore "human relationships with mysterious, unseen, or even divine forces... [and which] examine what are perceived as threats to their [characters'] existence, such as crime, the powers of nature, or people unlike themselves" (xxxii). This dissertation, which investigates narratives located

along a continuum of expression progressing from the oral to the digital—from the primitive to the contemporary—then regards the visceral, overt threat portended by the monstrous as roughly analogous to the oral tradition. Technohorror, whose characteristics will be discussed in greater detail later in this chapter, is generally correspondent with our digital present.

It is with monsters, then, upon which a taxonomy of the horrific rests.

Monsters assume a variety of forms and occupy a range of important narrative functions within the horror tale. From the human-animal hybridity of the Greek minotaur to the extraterrestrial threat found in such hallmark films as Ridley Scott's 1979 *Alien*, monstrous figures inspire dread, revulsion, and fright through their exhibition of the grotesque (unnatural), the exaggerated (incongruous), and the interstitial (hybrid).

Table 1: Taxonomy of the Horrific



The domain of the contemporary monstrous is comprehensively documented in much of the recent literature in horror studies. Many scholars begin such a survey with Mary Shelley's 1818 publication of *Frankenstein; or, The Modern Prometheus*. This groundbreaking work remains a seminal artifact for its broad treatment of the monstrous in literature.

The unnamed creature at the center of the story is abnormally large. Composed of a variety of body parts scavenged from human corpses, this incongruous character represents a hybrid of the living and the dead. The creature of Shelley's masterwork typifies Booker's sentiments on the nature of the monstrous, which holds that "the monster will always have some human characteristics, but will never be represented as wholly human. By definition, the one thing the monster in stories can never be is an ideal, perfect, whole human being" (32). This principle remains prominent through much of the twentieth century, with monster narratives of this era largely falling into a trio of broad categories that King labels "the Thing, the Vampire, and the Werewolf" (85). These categories, which include stories of transformation, mutation, and predation, account for the bulk of those fictional representations that straddle the chasm between the human and the monstrous.

In the middle of the twentieth century, however, films like Don Siegel's *Invasion of the Body Snatchers* (1956) began to complicate the nature of monstrosity in the horror field. Set in the fictional California village of Santa Mira, Siegel's film depicts an alien invasion predicated on the diminution of personal identity. In *Invasion*, bulbous alien seed pods gestate identical human replacements for the residents of Santa Mira. The story's protagonist, Dr. Miles Bennell (Kevin McCarthy), encounters numerous patients complaining that their loved ones aren't behaving normally. Bennell interprets their complaints as some form of widespread Capgras Syndrome (a delusion that a cherished acquaintance has been replaced by an imposter), though it soon becomes clear that the people of Santa Mira are, indeed, being supplanted in their sleep—exchanged, in essence, for emotionless alien imposters.

The film traumatized audiences for its depictions of the subtle appropriation of the human spirit. I first encountered it on a television broadcast, viewing it with my mother one Halloween

night when I was around nine or ten years old. The memory of Uncle Ira Lentz (Tom Fadden) mechanically mowing his lawn remains indelible in my mind as a textbook example of the uncanny. His sterile facial expressions and discordant physical mannerisms epitomize a form of the monstrous that many critics have interpreted as an allegory for human devolution. As we will explore in subsequent chapters, this fundamental absence of human awareness is a common motif in such contemporary tales of technohorror as King's *Cell* and Project Itoh's *Harmony*. Siegel himself experienced an existential epiphany while reading Jack Finney's 1955 novel *The* Body Snatchers, noting that, "Danny [Mainwaring, the screenwriter] and I knew that many of our associates, acquaintances and family were already pods. How many of them woke up in the morning, ate breakfast (but never read the newspaper), went to work, returned home to eat again and sleep?" (Stafford). The film's indictment of the nihilistic, repetitive, and emotionless would be revisited a few decades later in Ira Levin's horror thriller *The Stepford Wives*. Levin's 1972 novel depicts a community in which human individuality and autonomy have once again been marginalized, only in this case the usurpation is occasioned by robots engineered by man and not by extraterrestrial forces.

This leap from the supernatural to the quasi-realistic in the middle of the twentieth century has profoundly influenced our contemporary understanding of the monstrous. Films and novels by artists such as Finney, Siegel, and Levin depict a more understated and nuanced threat; this new menace surfaces in the guise of our neighbors, our family members—even in our spouses. It is an intimate (and one could even say *interior*) form of the monstrous that points directly to the forms of technohorror that abound in films like *Ex Machina* and throughout the storytelling tradition of the early twenty-first century. Within these works, genuine human connection has been replaced by the artificial—by the manufactured, engineered, or synthetic.

This reshaping of the human condition is a touchstone of the new monstrous—an intellectual or spiritual reformation that noted horror author Dean Koontz argues remains a compelling reason for the popularity of stories such as *Invasion*:

Many of us spend the evening hours online, staring at a screen rather than at human faces, communicating without the profound nuances of human voices and facial expressions, seeking sympathy and tenderness without the need to touch. All the while, through our bones creeps the persistent feeling that we are losing our humanity. (ix)

It's a chilling appraisal of how our communication methods and technologies remain indelibly connected to our understanding of personhood (the object of obsession for Booker's prototypical monster) and the self. In her important study *Alone Together: Why We Expect More from Technology and Less from Each Other*, Sherry Turkle notes that as "we instant-message, e-mail, text, and Twitter, technology redraws the boundaries between intimacy and solitude" (11). Turkle and Koontz are pointing toward a culture in which an absence of physical human presence has opened doorways into novel explorations of the monstrous. A closure of this circuit, so to speak, emerges in Ken Liu's 2014 apocalyptic short story "The Gods Will Not Be Chained," in which competing technology firms upload human consciousness into massive computer networks for illicit purposes:

Logorhythms was hardly the only company engaged in the pursuit of digital immortality, the fusion of man and machine, the Singularity. Dr. Waxman was not the only one who attempted to distill ambitious, powerful minds to obedient algorithms, to strip the *will* away from the *skill*, to master the unpredictable through digital wizardry.

They were certainly not the only ones who failed.

Ghosts in the machine, thought Maddie. A storm is coming.

In the case of Liu's story, which appeared in the anthology *The End is Nigh*, that storm arrives at the whims of a cadre of monstrous machines whose actions spell the end of humanity through the manipulation of the global economic markets and the military-industrial complex.

This is not to presume, of course, that explicit examples of the monstrous are in short supply in the twenty-first century. Zach Snyder's 2004 remake of *Dawn of the Dead* and James Gunn's 2006 film *Slither* are often viewed as direct descendants of the monstrous depictions first popularized by such pioneering predecessors as Tobe Hooper and David Cronenberg. But the rise to prominence of the subtle monster in the latter half of the twentieth century has deeply influenced the stories now emerging in contemporary horror. And just as the nature of the monstrous has shifted in the last century, so too has our understanding of the next strata in a taxonomy of the horrific—the spectral.

While the traditional threat presented by the thing, vampire, or werewolf is often overt, direct, and physical, the fear engendered by the spectral trends toward the subtle, gradual, and psychological. While ghost stories have long held great significance in eastern literature, their broader emergence in the canon of western literature is a much more recent phenomenon. Early ghost stories first surfaced in the oeuvre of such dark romanticists as Nathanial Hawthorne, though it was the Victorian Era that popularized the genre for mainstream audiences in Europe and the United States. These stories—crafted by artists as varied and influential as Charles Dickens, Mark Twain, Henry James, and Edith Wharton—represent the clearest examples of the transformative powers of disembodiment in the horror genre. Because the ghost represents a potential for a kind of freedom that is constrained by the physical, organic form, these stories allow for a deeper exploration of the cultural and psychological conditions of their settings. In his study *The ghost story*, 1840-1920: A Cultural History, Andrew Smith notes:

During the nineteenth century the ghost story became *the* form in which conventional cultural assumptions about identity politics were challenged by a process of radical disembodiment. By transforming the self into the liminal form of the ghost the fragility of the self (as a social and cultural construct) is made apparent. (4)

This "fragility of self" points toward both the peril and freedom afforded by disembodiment that permeates much of the horror fiction of the early twenty-first century. The echoes of liminal confusion—that complexity between life and death—that emerge in Wharton's "Afterward" (1910) are evident in such recent films as *The Others* (2001), *Oculus* (2013), and *We Are Still Here* (2015).

Where fright—occasioned by the element of surprise—is so often the province of the monstrous, much of the emotional allure of spectral fiction resides in the slow and steady cultivation of anxiety. In his study *American Nightmares: The Haunted House Formula in American Popular Fiction*, Dr. Dale Bailey notes that much of what makes the spectral tale horrifying can be attributed to the artistic rendering of place:

Most pertinent to our concerns, however, is the centrality of setting—that atmosphere of gloom and decay which adheres to the crumbling abbey and the ruined castle in the gothic novel. In few other genres does setting play such a significant and defining role. (4)

Many powerful works of literature utilize setting and environment as metaphors for the psychology or temperament of their characters. Wharton's "Afterward" depicts an American couple that has relocated to England. They move overseas to enjoy their retirement and a financial windfall that has allowed them to literally inhabit their gothic fantasy, although it is clear from the outset that Ned Boyne is deeply troubled by his past. Wharton's description of the setting illustrates the power of place while also foreshadowing the spectral encounter in the story's third act:

The butter had certainly been laid on thick at Lyng: the old gray house, hidden under a shoulder of the downs, had almost all the marks of finer commerce with a protracted past. The mere fact that it was neither large nor exceptional made it, to the Boynes, abound the more richly in its special sense—the sense for having been for centuries a deep, dim reservoir of life. The life had probably not been of the most vivid order: for long periods, no doubt, it had fallen as noiselessly into the past as the quiet drizzle of autumn fell, hour after hour, into the green fishpond between the yews; but these back-waters of existence sometimes breed, in their sluggish depths, strange acuities of emotion, and Mary Boyne had felt from the first the occasional brush of an intenser memory.

Wharton uses the estate Lyng (an overt nod to the gothic environs of the horror tradition) to elucidate Mary Boyne's gradual awakening to her husband's complicated nature. Ned's business dealings—while not illegal—have ruined a former partner and driven him to suicide; the ghostly spirit of that same man will ultimately visit Lyng, stealing Ned away in a climax that is largely revealed through the sentience of setting:

But the house *knew*; the library in which she spent her long, lonely evenings knew. For it was here that the last scene had been enacted, here that the stranger had come, and spoken the word which caused Boyne to follow him. The floor she trod had felt his tread; the books on the shelves had seen his face; and there were moments when the intense consciousness of the old, dusky walls seemed about to break out into some audible revelation of their secret. (Wharton)

Wharton's chilling tale features two prominent components of the spectral horror tale: the haunted house and the vengeful ghost. As Smith notes, disembodiment provides authorial freedom for cultural commentary; that commentary in "Afterward" (made perhaps more explicit in such ghost stories as Dickens's *A Christmas Carol*) is critical of the greed and avarice associated with modern business practices. And, as Bailey notes, the setting becomes a lens through which to glean the moral or psychological metaphors inherent in a story's tone. In William Faulkner's 1931 southern gothic "A Rose for Emily," for instance, reclusive protagonist Emily Grierson's antebellum estate decays in concert with the character's descent into madness.

In the 1930s, English scholar and horror writer Montague Rhodes (M.R.) James began to transport the ghost story out of the castles, abbeys, and crumbling estates of the gothic tradition and into more realistic contexts. James popularized the notion of haunted, commonplace objects—a central component of contemporary mundane horror that remains prominent in stories such as King's novella *The Sun Dog*. In King's story, young Kevin Delevan receives a Polaroid Sun 660 camera for his birthday. His photographic attempts yield images only depicting the gradual approach of a vicious black dog. Each subsequent photograph brings the animal closer to Delevan's perspective—and also to his physical person. Haunted by recurring nightmares of the animal and fearful that it might escape from its photographic environment, Delevan devises a method for trapping the supernatural creature. He succeeds, only to later discover that the animal now haunts him through the word processor of his new computer. In *The Sun Dog*, the technologies of production operate as powerful conduits for creating the spectral texts that foretell a material encounter with unescapable, malevolent forces. The migration from the physical to the digital—from floppy, inexpert polaroid pictures to glowing, backlit words on a computer screen—communicates a chilling change in the complexion of the haunting act, shifting the anxiety and anticipation away from the environmental (which can be escaped or avoided) and into the practical, unremarkable world of everyday communication.

King's story is a fine example of horror's dexterous nature, combining elements of the monstrous, the ghostly, the mundane, and the technological in a single succinct package. In many ways, *The Sun Dog* shares a kinship with James's "Casting the Runes," which depicts a demented alchemist named Karswell showing a group of young children a gruesome slideshow via a popular period device called a magic lantern:

At last he produced a series which represented a little boy passing through his own park—Lufford, I mean—in the evening. Every child in the room could

recognize the place from the pictures. And this poor boy was followed, and at last pursued and overtaken, and either torn to pieces or somehow made away with, by a horrible hopping creature in white, which you saw first dodging about among the trees, and gradually it appeared more and more plainly. Mr. Farrer said it gave him one of the worst nightmares he ever remembered, and what it must have meant to the children doesn't bear thinking of. Of course this was too much, and he spoke very sharply indeed to Mr. Karswell, and said it couldn't go on. All *he* said was: "Oh, you think it's time to bring our little show to an end and send them home to their beds? *Very* well!" And then, if you please, he switched on another slide, which showed a great mass of snakes, centipedes, and disgusting creatures with wings, and somehow or other he made it seem as if they were climbing out of the picture and getting in amongst the audience; and this was accompanied by a sort of dry rustling noise which sent the children nearly mad, and of course they stampeded. A good many of them were rather hurt in getting out of the room, and I don't suppose one of them closed an eye that night.

It's a horrifying tale made all the more unsettling by its foray into the realm of the uncanny—its ability to cross the boundary of Freud's "superstitiousness" before stepping into the realm of plausibility within the constructs of James's narrative.

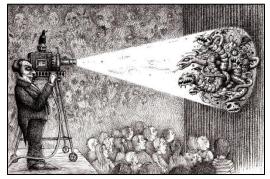


Figure 1: Mr. Karswell's Magic Lantern Show, art by Paul Boswell

Spectral horror stories frequently deal with spiritual corruption or pollution—the notion that activities, people, and events can leave a residual bruise on a physical place. The haunted house stories of the gothic and romantic periods were re-imagined in the latter half of the twentieth century in stories such as Shirley Jackson's 1959 *The Haunting of Hill House*, Alfred Hitchcock's film *Psycho* (1960), and Richard Matheson's 1971 novel *Hell House*.

The symbolism of the crumbling English manor house was replaced by the rural American hotel; the horror of the ghost in the attic was ushered into the cold realm of the plausible as, in stories such as *Hell House*, science and technology are used to mediate faith and belief through high-tech investigations of the paranormal.

In the first years of the new century, ghost stories have been reimagined yet again to coalesce with an emerging digital communication paradigm. Scholars such as Turkle and Henry Jenkins and horror writers like Marisha Pessl and Chuck Palahniuk have written perceptively about distributed embodiment and the "haunting" of chatrooms, Internet fora, and digital gaming environments. Adolescents frequent popular Web sites such as *creepypasta.com* as an emerging digital campfire circle while folklorists and historians utilize online communities such as *The Moonlit Road* as repositories for photographs and narratives. Ghost stories, while still fundamentally tied to the tenets of the oral tradition, are now also colonizing the Internet.

An emerging trend in this taxonomy points toward an important component of technohorror—plausibility. The fictional monster frightens us, to be sure, though we never expect to encounter supernatural monstrosity in reality. The spectral frightens us for its nebulous—yet perhaps authentic—historicity. On the question of the presence of ghosts, Wharton writes:

The celebrated reply (I forget whose): "No, I don't believe in ghosts but I'm afraid of them" is much more than the cheap paradox it seems to many. To "believe," in that sense, is a conscious act of the intellect, and it is in the warm darkness of the prenatal fluid far below our conscious reason that the faculty dwells with which we apprehend the ghosts we may not be endowed with the gift of seeing. (7).

Like theorists from fields as varied as psychology, philosophy, literature, and folklore, Wharton ties the horror story back to childhood, the maturation process, and the allure of engaging with frightening texts. In doing so, she does a fine job of articulating the spectral horror tale's complicated charm, although perhaps it really is just as simple as King's temporal observation that "the past *is* a ghost which haunts our present lives constantly" (*Danse Macabre* 253).

The next section in this taxonomy of horror involves those narratives illustrating the devolution of culture and society—stories such as Cormac McCarthy's *The Road*, J.G. Ballard's *High Rise*, King's "The End of the Whole Mess," and Jackson's "The Lottery." These stories feature tension in the dynamics situated within rural/urban horror, esoteric/exoteric subcultures, and dystopian/utopian societies. Many of these stories include failed advanced technologies as the catalyst for their horrific tropes, with settings and plots that reflect actual tragedies in our recent global history. The stark wastelands and deserted communities of McCarthy's post-apocalyptic novel, for instance, evoke memories of the nuclear reactor explosion at Chernobyl. The dismantling of public trust in the current surveillance climate occasioned by the events of 9/11 was effectively foreshadowed in stories such as Richard Bachman's (King's pseudonym) *The Running Man* and Carpenter's *They Live* (1988).

Where stories of monsters and ghosts descend most directly from the gothic tradition, tales of social horror are largely products of the twentieth century; they also cleave more closely to the boundaries of science fiction. Theorist Noël Carroll, in his important study *The Philosophy of Horror, or Paradoxes of the Heart*, notes that "much of what we pretheoretically call science fiction is really a species of horror, substituting futuristic technologies for supernatural forces" (14). Dickstein argues that films such as *Alien* depict a new form of the haunted house in the guise of its dimly lit spacecraft, and both King and Bailey make compelling cases that the science fiction of the twentieth century frequently dips into a kind of generic hybridity that some critics now call "science horror."

The dread of social breakdown—including stories of devolution, alienation, and estrangement—illustrates a narrative agility extending beyond that often found in the pair of previously discussed taxonomic divisions. These tales survey an expansive thematic territory,

with urban and rural settings alike illustrating the complexity of human social traditions.

Jackson's "The Lottery," for instance, examines the fallacy of flawed tradition, the dangers of groupthink mentality, and the perils of scapegoating, all in a pithy little story about ritual human sacrifice in an isolated New England village. King's "Rainy Season," in which a pair of outsiders signifying the urbane traditions of academia "retreat" to rural Maine for a quiet summer of scholarship, echoes Jackson's story in its exploration of the rural/urban and esoteric/exoteric dichotomies. After John and Elise Graham are warned by the matriarch of tiny Willow, Maine, that every seven years it rains carnivorous toads, suspicion and incredulity create a rift between the townspeople and their wary guests:

"If this is a joke, I'm not getting the point," John said.

"No, it's not a joke," she said. She glanced at Eden, who gave her a brisk little nod, as if to say *Go on, don't quit now*. The woman looked back at John and Elise, appeared to steel herself, and said, "You see, folks, it rains toads here in Willow every seven years. There. Now you know."

"Toads," Elise said in a distant, musing, Tell-me-I'm-dreaming-all-this voice.

"Toads, ayuh!" Henry Eden affirmed cheerfully.

John was looking cautiously around for help, if help should be needed. But Main Street was utterly deserted. Not only that, he saw, but *shuttered*. Not a car moved on the road. Not a single pedestrian was visible on either sidewalk.

We could be in trouble here, he thought. If these people are as nutty as they sound, we could be in real trouble. (418)

The Grahams' misgivings are amplified by their isolation and the stark distinctions between their identities as academics from the University of Missouri and the folksy facades of these earnest, but eccentric, small-town shopkeepers.

Perhaps more than any author since Faulkner, King excels at writing about the strange American small town. In *Needful Things*, for instance, antiquities trader Leland Gaunt (a thinly

veiled archetype symbolic of devilish temptation) uses coveted material items to destroy Castle Rock, Maine, by pitting its citizens against one another. The town descends into a moral abyss before Gaunt slips away to replicate the process in rural Iowa. In 1922, an exceedingly dark novella of murder and revenge, King depicts the duality inherent in America's urban/rural nature as narrator Wilfred James laments, after killing his wife:

Some of those hours I spent at the kitchen table, drinking cup after cup of black coffee. Some of them I spent walking in the corn, up one row and down another, listening to the swordlike leaves rattle in a light breeze. When it's June and corn's on the come, it seems almost to talk. This disquiets some people (and there are the foolish ones who say it's the sound of the corn actually growing), but I had always found that quiet rustling a comfort. It cleared my mind. Now sitting in this city hotel room, I miss it. City life is no life for a country man; for such a man that life is a kind of damnation in itself. (26-7)

King paints a portrait of pure simplicity in his depictions of rural life that, when juxtaposed with the many grim depictions of the city in contemporary horror fiction, exemplifies the divisive nature that technology plays in many horror stories—for every city *is* a technology. As Bailey notes, this duality can be distilled even down to the nature of the physical house itself. To illustrate the point, Bailey cites American transcendentalist Henry David Thoreau's views on building a home found in *Walden; or, Life in the Woods*:

if one designs to construct a dwelling house, it behooves him to exercise a little Yankee shrewdness, lest after all he find himself in a workhouse, a labyrinth without a clew, a museum, an almshouse, a prison, or a splendid mausoleum instead. (9)

In these examples, rural simplicity represents a form of the human sacred; technology, more frequently surfacing in urban narratives, then becomes an instrument for illustrating human devolution.

Such urban texts abound in the literature of the last century. Aldus Huxley's 1932 novel Brave New World anticipates a global economy predicated on material mass-production. It speculates on the impacts of biological engineering and the diminution of personal identity in a world populated by genetically enhanced Alphas and Betas. George Orwell's scathing indictment of surveillance in an authoritarian culture in his 1949 novel *Nineteen Eighty-Four* was so influential on mainstream culture that the adjective "Orwellian" remains a prominent term for describing over-reaching governments. Pat Frank's 1959 post-apocalyptic survival novel *Alas*, *Babylon* depicts a nuclear reckoning that still reverberates in the city from which I am writing this essay. Frank, who lived in the Jacksonville area, writes:

Florence blinked. For an instant it seemed that someone had flashed mirrored sunlight into her eyes. At the same instant, the message from JX stopped.

"That's funny," she said. "Did you see anything, Mr. Quisenberry?"

"Nothing but a little flash of light. Where did it come from?"

The teleprinter chattered again.

"PK TO CIRCUIT. BIG EXPLOSION IN DIRECTION JX. WE CAN SEE MUSHROOM CLOUD."

PK meant Palatka, a small town on the St. Johns south of Jacksonville.

Florence rose and walked to the counter with Edgar's message. "I'm very sorry, Mr. Quisenberry," she said, "but I can't send this. Jacksonville doesn't seem to be there any more." (111-2)

While stories like those written by Huxley, Orwell, and Frank elucidate the horror inherent in widespread social devolution, focused examples of their concepts—as is evident in Rod Serling's "The Monsters Are Due on Maple Street"—best foretell some of the common anxieties that surface in the technohorror of the twenty-first century.

The Twilight Zone is fertile territory for identifying keen examples of social horror. While a minority of episodes feature overt, monstrous terrors (1985's "Gramma" and "The Elevator" come to mind), many of the early episodes engaged in an exploration of quiet horror—of

depicting a form of creeping dread whose roots were planted firmly in narratives of collapsing communities and the blurred understanding of self.

First airing in 1960, "The Monsters Are Due on Maple Street" focuses on a suburban street in the heart of Americana and the paranoid interactions of a group of neighbors after a mysterious flying object passes overhead. According to the U.S. Census Bureau, Maple Street is one of the most common street names in the country, imparting a broader appeal to the episode's criticisms. Shortly after the object's passage, the electronics on the street begin to function sporadically. This plot complication creates tension as the characters interrogate each other over their disparate access to technology—whether that access comes in the form of cars that start upon first ignition or working porch lights:

Don: Maybe you better tell us. Nothing's working on this street. Nothing. No lights, no power, no radio. Nothing except one car—yours!

Les Goodman: Wait a minute now... So I've got a car that starts by itself—well, that's a freak thing, I admit it.

After Goodman's porch light blinks on and off, the standoff's intensity spikes:

Goodman: Now I suppose that's supposed to incriminate me! The light goes on and off. That really does it, doesn't it? I just don't understand this...Look, you all know me. We've lived here five years. Right in this house. We're no different from any of the rest of you! We're no different at all. Really...this whole thing is just...just weird—

By illustrating the desperation inherent in humanity's reliance on technology at both the advanced (automobile) and basic (porch lights) levels, Serling effectively cuts to the core of an important paradox at the center of contemporary technohorror: humans can fear disconnection from technology while they are simultaneously suspicious of those same tools' nature and their indelible connection to the human condition. This paradox typifies the qualities of attraction and repulsion that Friedrich Nietzsche counts among the many (along with tension, resistance,

integration, assimilation, and incorporation) components of humanity's traditional desire to exercise a cultural "will to power." Nietzsche's theory suggests that gross "displays of power [and], the recurrent attempts of individuals and groups to subjugate others" is in large part tied to the laws of attraction and repulsion that often coexist in the course of our lived experience (Bizzell and Hirzberg 886-7). In Serling's tale, the people of Maple Street are concurrently bound to the utility of their technologies while they are also repulsed by what these tools communicate about the perceptual hidden nature of their friends, neighbors, and relatives. It is a powerful narrative, to be sure, because we define ourselves through our technologies, and our technologies (whether basic or advanced) form the foundations and shape the routines of our daily lived experience.

As we review the various strata (and the necessarily few, but representative, textual samples in the preceding survey) in this taxonomy of the horrific, a progression of phenomena emerges:

- In the middle of the twentieth century, a new form of the monstrous emerged which emphasized the conceptual threat toward humanity as originating from the interior.
- The complexion of contemporary ghost stories is shifting toward greater
 plausibility in the era of electracy as distributed embodiment reformulates the
 narrative freedoms of disembodiment.
- Tales of social breakdown are increasingly depicting the mundane, quiet apocalypses of the individual or communal (as opposed to the national or global) as articulated through humanity's complex relationship to technology.

Because taxonomies frequently winnow from the broad to the narrow, the technological history of the last two centuries has had the greatest impact on our current understanding of the horrific. As we move from the ambiguous dread of overcoming the external (physical) monster, we

acknowledge the internal horror potentially surfacing in the human-machine hybrid (transhuman) and the threat from the mechanical itself. Nowhere is this more apparent than it has become in the first years of the twenty-first century where, as noted in Table 1-1 at the outset of this subdivision, horror narratives are increasingly tackling subjects that demand we rethink our understanding of personhood, consciousness, and the self.

Toward a Definition of Technohorror

The essays that follow examine technology's impact on narrative form and function in twenty-first century horror. The term "technohorror," therefore, carries a compound meaning—referring both to the production practices of many modern artists in addition to the themes, subjects, and speculations of their work.

A pair of tonal paradigms predicated on our discernment of darkness and light, of human optimism and pessimism, broadly govern humanity's expansive narrative tradition. But another category appeared in the twentieth century—a category marked by cool ambivalence to the concerns of humanity or the natural world. These narratives materialized in concert with the cultural primacy of advanced machines, often featuring characterizations of sterile, logical automata operating in a fashion that was markedly anti-humanistic.

A popular subject in the horror canon of the last century included speculations on the expanding role of robotics in society. Donald Cammell's *Demon Seed* (1977), Wes Craven's *Deadly Friend* (1986), and Richard Stanley's *Hardware* (1990) depict a variety of horrific plots involving robots run amok—including stories of transcendence, sentience, and regeneration. The term "robot" originated in Czech playwright Karel Capek's 1921 *R.U.R.* (Rossum's Universal Robots), a dramatic work focusing on themes of automation, economic inequality, the nature of personhood, and human fears of mechanistic usurpation (Long). Used as a qualifier, the term

"robotic" is often viewed in contemporary culture as a pejorative—a derisive term indicating a mindless, systematic, and unemotional approach to solving a problem or completing a task.

As robotics have insinuated themselves more deeply into our lived experience, however, twenty-first century depictions of smart machines and their role in augmenting the human experience have adopted increasingly complex treatments. Simple Luddism has become complicated in cultures where biological selection commonly occurs at the embryonic stages of human development, and in which brain-computer interfaces foretell a brighter future for those suffering from paralysis, stroke, or traumatic injury. Turkle writes astutely about the emotional maturity that children develop in caring for their intuitive toys—smart machines such as Furbies and Tamagotchies. Hasbro's line of robotic pets (optimistically titled *Joy For All*) seeks to fill a companionship gap common in elder care by providing stimulation for senior citizens (White). Autonomous driving is rapidly becoming a practical reality, and advanced research into the viability of human-computer transcendence is spreading throughout Russia, the United States, and parts of Europe (Segal). In cultures where ubiquitous computing flourishes, technological achievements that would seem outlandish a dozen years ago are appearing with greater regularity in daily life. Rapid technological development has consequences, of course, with both anticipated and unanticipated outcomes in play. For those fully immersed in the advancements found in these communities, the potential for encountering an uncanny moment is amplified because technology's impacts on our lived experience are both gradual and additive. These impacts manifest themselves in ways that seem novel at first, but grow quickly to become commonplace—a principle that Donald Norman argues is merely a component of life in an advanced society:

Remember when you first learned to drive? Everything seemed to be happening so quickly, with simultaneous actions required of each hand and foot, while

watching out for cars behind, to the sides, and for objects in front, plus reading and obeying traffic signs and lights that were located at unknown places along the road: it seemed impossible. After a few years of driving, it feels so simple and easy that people eat food, put on makeup, pick up items from the floor, and do all sorts of activities while driving. The simplicity is deceiving. During normal driving, the skilled driver has lots of free time: if anything, driving is boring. But suddenly, without warning, a dangerous situation can appear. (29-30)

Norman's striking example illustrates some of the essential components of what I am calling technohorror in this project: plausibility, mundanity, and surprise. Technohorror is not pure technophobia, but a form of creeping, pervasive dread born of symbiotic uncertainty in our relationship to technology and our shifting perceptions of what it means to be human. It surfaces in that violent third act in Ex Machina, and also in the revelation of human transcendence at the center of Liu's story. Protagonist Maddie, whose father has died, conducts a surreal exchange with a stranger in an Internet chatroom; the stranger communicates only with emoji. It's a nostalgic conversation for her, as she and her father used to play a form of Pictionary with emoji while communicating through their smartphones. The experience crosses the boundary of uncomfortable novelty and treads into the realm of the authentic uncanny when the stranger crafts poetry in the form of emoji that Maddie's mother recognizes from the courtship period she enjoyed with her deceased spouse. In Liu's story, the revelation of an artificial intelligence doesn't arrive with the narrative pomp of sophisticated spaceships, tractor beams, and flashing lights. Instead, it exposes itself to a tormented schoolgirl in the mundanity of an Internet chat on a refurbished PC in those ephemeral hours between the conclusion of the school day and her mother's return home from work.

Effective horror operates with purpose, and these purposes shift in concert with the social anxieties, technological adaptations, and symbolic changes in the larger culture. As Brigid Cherry notes in her essay "Subcultural Tastes, Genre Boundaries and Fan Canons," "different

styles and cycles have dominated at particular cultural moments and these have appealed to different identity groups at different times" (202). In an effort to better understand how emerging technohorror narratives function, a common question that I have posed to the numerous artists, scholars, editors, and publishers interviewed for this project inquires after what an engaging contemporary horror story should ultimately achieve. In *Danse Macabre*, King (harkening back to some of Freud's philosophical theories) argues that horror fiction both engages with the novelty of the spectacular while also providing audiences with an opportunity to experience emotional catharsis:

It is, at bottom, a dance of dreams. It's a way of awakening the child inside, who never dies but only sleeps ever more deeply. If the horror story is our rehearsal for death, then its strict moralities make it also a reaffirmation of life and good will and simple imagination—just one more pipeline to the infinite. (379-80)

King's theory resurfaces often in the oeuvre of technohorror, as many of the narratives discussed in the subsequent essays deal with questions of human finitude (cultural, physical, and cognitive).

Carroll, whose concepts of art-horror serve as a progenitor for technohorror in this study, notes the genre's proclivity for provoking particular expressive responses within the audience. He writes that "art-horror is an emotion. It is the emotion that horror narratives and images are designed to elicit from audiences" (24). Using the strata from the taxonomy in the previous section as guidelines, one could argue that monstrous narratives stir revulsion in their depictions of the threatening or impure. Spectral tales inspire emotions of longing or guilt in their representations of haunted homes and tortured souls. Social horror stimulates feelings of inadequacy in its portrayals of ostracism and fears of isolation in its imaginings of collapse. Technohorror holds the capacity to trigger each of these emotions in its body of mundane, transrealistic, and uncanny narratives dealing with questions of personhood, cognition, and

finitude. In the first fifteen years of the twenty-first century, writers such as King, Liu, Hugh Howey, Project Itoh (Satoshi Itō), and John Scalzi have written stories of technohorror engaging with such topics as devolution (social/collective and physical/personal), the Singularity, distributed embodiment, identity tension, and cognitive atrophy. While our lived experience typically yields cautiously optimistic stories of technological triumphalism, these authors use fiction to "bust the walls of [our] tunnel vision wide for a little while" (King *Danse Macabre* 378). They provoke us and they unsettle us, and they do so on the basis of that fascinating paradox at the heart of Serling's "The Monsters are Due on Maple Street."

At our core, modern humanity is simultaneously attracted to and repulsed by the prospects of what advanced technology promises us. Few among us are as ardently naturalistic as Thoreau or as fervently anti-luddite as J.G. Ballard, but most of us have experienced moments of both stark trepidation about learning a new technology and utter reliance on a tried and trusted tool. This paradox has much to do with phenomenology, or the study of consciousness. A useful theory on our perception of human existence appears in Eugene Thacker's In the Dust of This *Planet.* Thacker argues that we largely understand our existence through three prisms: the worldfor-us (our contemporary world, bent to human habitation), the world-in-itself (the physical world, which frequently opposes human habitation with natural disasters), and the worldwithout-us (what might remain after, or without, human influence). The third category is purely speculative and "as much a cultural concept as it is a scientific one, and...it is in the genres of supernatural horror and science fiction that we most frequently find attempts to think about, and to confront the difficult thought of, the world-without-us" (6). Thacker's text focuses on narratives not of presence, but of absence; so, too, does the field of technohorror, whose narratives investigate worlds-without-technology, worlds-without-presence, and worlds-withouthumanity. In the theoretical essays that follow, works of technohorror will feature characters at odds with uncanny surprises which surface in environments characterized by the creep of technology. They will investigate mundane, transrealistic stories of characters faced with the horror of their deteriorating physical bodies, their crumbling communities, and their flawed technologies. My theoretical position with respect to technohorror dictates that the locus of the narrative unsettling (the postulate which provokes an emotional response) be concentrated on the built, engineered, or augmented and not on the born, natural, or purely evolutionary. These texts explore the myriad ways in which humanity attempts to utilize technology to improve the species while also speculating on the ghastly—and often horrific—consequences so frequently attendant to ambitious tinkering.

On the Nature of Medium, Production, and Content

Another important component of this research project is conducting a critical survey of the production practices and story architectures of horror in the twenty-first century. Our position at the outset of a new century yields a spirit of general optimism that filters into the fields of technology and the arts. The Internet, whose reach now extends to more than 80% of American users, has indelibly changed the nature of textual production (Perrin and Duggan). Producers are collaborating on transmedia narratives and creating rich assemblages which harness print, digital, audio, and video technologies, creating multiple access points for a wide range of audience demographics. Digital and print-on-demand publishing technologies are remediating the traditionally selective gatekeeping culture of literary production—another component of digital dissonance that bears close examination. Textual production and distribution methods have experienced a sea change in just nine short years, spawning a collection of industry neologisms such as "disintermediation," "e-stributor," "legacy publishing," "hybrid," and "indie" authorship.

In short, we are presently experiencing many of the predicted changes that Bolter foretells in Writing Space: Computers, Hypertext, and the Remediation of Print:

Digital technology is turning out to be one of the more traumatic remediations in the history of Western writing. One reason is that digital technology changes the "look and feel" of writing and reading. A printed book could and did at first look like a manuscript, its appearance changing gradually over several decades...In the past two decades, however, computers have been recognized not only as writing technologies, but as media for popular entertainment and expression, which we are using to refashion visual as well as verbal communication. (24)

The diffusion of digital publishing practices emerging in just the last decade has deeply impacted the nature of textuality, the reading experience, and the growing levels of engagement taking place among artists, fans, and producers. These industry changes are having profound effects on the ways in which texts are selected, funded, produced, distributed, and received on the World Wide Web.

In his study *Convergence Culture: Where Old and New Media Collide*, Jenkins writes about the myriad ways in which knowledge communities, additive comprehension, media literacy, and grassroots creativity are re-shaping modern entertainment culture. He writes:

Convergence...is both a top-down corporate-driven process and a bottom-up consumer-driven process. Corporate convergence coexists with grassroots convergence...The promises of this new media environment raise expectations of a freer flow of ideas and content. Inspired by those ideals, consumers are fighting for the right to participate more fully in their culture. (18)

In the horror field, the channels between producers, fans, and artists have long been remarkably open. The generous spirit of fan interaction and feedback that flourished in the era of the pulp magazines, for instance, has migrated online to forums such as those found at the *Horror Drive-in* and *Horror.com*. As an example, *Weird Tales* is often credited with establishing Lovecraft's literary career. The pulp magazine did provide him with some of his first publishing credits, but it was much more than a simple marketplace for his unique brand of cosmic horror. It also

proved to be a nexus for criticism, correspondence, and fandom among a substantial population of important artists and scholars in the early twentieth century.



Figure 2: Weird Tales, 1942, art by Edmond Good

Lovecraft, a prodigious correspondent and prolific literary critic, used the pages of the pulps to foster the careers of such contemporaries as August Derleth, Robert Bloch, and Fritz Leiber (Joshi). As Tony Magistrale and Michael A. Morrison note in their study *A Dark Night's Dreaming: Contemporary American Horror Fiction*, the zine culture of the 1980s and early '90s provided "ideal venues for experimental or otherwise uncommercial work" for such well-known authors as King, Lansdale, and Ramsey Campbell (19). The recent explosion of digital publishing, coupled with the relatively low costs associated with operating a Web magazine, has facilitated an expansive array of niche horror markets that cater to a wealth of tastes and subjects. A recent search for markets publishing short horror fiction at the Web directory *The Submission Grinder* yielded a whopping 247 results. This is a staggering total comprised of both traditional and digital publications that are willing to present material overtly identifying itself as "horror"—a term that originated as a marketing category, but which now denotes a literary genre that has lately enjoyed substantial positive critical reappraisal.

Despite a lineage of esteemed authors ranging from Shelley and Poe to King and Koontz, horror has long been regarded as a "culturally disreputable backwater genre" (Morrison 9). At the outset of the millennium, however, and in the wake of the rise of the bestselling horror novel,

that appraisal is changing. In his poignant remarks to the Horror Writers Association in June of 1998, Douglas Winter notes that horror "exists, thrives, lingers, and occasionally triumphs because, unlike any other supposed kind of fiction, horror invokes an emotion. It is a progressive form of fiction, one that evolves to meet the fears and anxieties of its times." At present, it is also enjoying a tide of popular momentum that is creeping into academia and the so-called bastions of "high culture," such as the pages of *The New Yorker*. AMC's top-rated television program *The Walking Dead* is discussed in college classrooms (Stedman). Dr. Travis Langley recently edited *The Walking Dead Psychology: Psych of the Living Dead*, which features academic articles written by a variety of scholars on issues such as post-traumatic stress disorder and groupthink mentality. Academic journals and themed special editions on horror topics are proliferating in higher education, catering to a population of scholars and fans that "tend to be literate, intelligent, and eager to read about their favorite genre" (Monaghan). Critical horror studies is now a flourishing field, and much of this appeal can be linked to its broad cultural reach and impressive degree of media diffusion.

Horror enjoys a healthy legacy as a vital component of mass culture. In the nineteenth and twentieth centuries, pulp fiction (including dime novels and penny dreadfuls) reimagined classic gothic tales such as Horace Walpole's *The Castle of Otranto* for popular consumption in Europe and the United States. The cheaper pulps introduced these stories to a working-class readership that had long eschewed the more expensive serialized offerings of writers such as Charles Dickens. Similar reimaginings proliferate in a variety of formats. Seth Grahame-Smith, for instance, recently introduced an entire generation to Jane Austen's class criticisms in his popular mash-up *Pride and Prejudice and Zombies*. Perhaps to underscore horror's efficacy in the translation of high literature, the tale's promotional copy reads "*Pride and Prejudice and*

Zombies transforms a masterpiece of world literature into something you'd actually want to read." Grahame-Smith's story also stands as a fine example of transmedia spread, spawning a popular graphic novel, video game, and blockbuster Hollywood film.

Horror films—from the creature features of the '40s and '50s to the slasher movies of the '70s and '80s and into contemporary Asian-horror (often labeled J-Horror and K-Horror for their origins in Japan and Korea, respectively)—remain among Hollywood's most lucrative offerings. In the latter half of the twentieth century, drive-in theaters popularized the double and triple feature, often grouping films around such shared subjects as alien invasions or atomic mutations. 1999's ground-breaking *The Blair Witch Project* forged a path for an entire subgenre of found-footage horror films while also utilizing the word-of-mouth power of Internet discourse communities to create a viral marketing sensation. Its success paved the way for 2007's breakout film *Paranormal Activity*. Produced for a mere \$15,000, *Paranormal Activity* grossed almost \$200 million at the box office (Kirkland). Scary movies remain an integral part of America's cultural fabric, and they capably illustrate the kind of democratizing power of digital media that Jenkins describes in *Convergence Culture*. As *Tribeca* critic Ron Mwangaguhunga notes:

Storytellers logically are gravitating towards lean budgeted, auteur-driven horror. Profitability in democratic capitalism leads to respectability, and the stigma once attached to gore-and-guts no longer applies. The horror genre has been underestimated and marginalized for so many years...and now, DIY horror is the new black.

Independent horror films account for a large percentage of the most popular content at such video-hosting sites as Vimeo, and Internet fandom has facilitated the production of a number of popular projects via crowdfunding.

Just as authors utilized the pulps at the turn of the twentieth century to inject their stories into mainstream culture, independent authors are using such publishing platforms as

Smashwords, Wattpad, and Kindle Direct Publishing to place horror stories in front of hungry audiences. Joe Konrath, Scott Nicholson, and Bobby Adair are three such authors that have sold millions of digital books outside of traditional publishing channels. Konrath is experimenting with storytelling that harnesses the Internet's hypertextual capabilities in creating narratives that extend beyond the boundaries of the traditional e-reader.

Horror authors have a storied history as early adopters when it comes to experimenting with emerging publishing methods and, as we progress into the twenty-first century, it is horror artists that are pushing their work toward artistic, economic, and aesthetic frontiers that reflect a rapidly evolving digital-media ecosystem.

This project aims to investigate the subgenre of technohorror and its significance as both literary subject and material practice in the early twenty-first century. These chapters fall into two categories: practical assessments of the textual production methods that are changing the complexion of the contemporary horror narrative and theoretical examinations of the themes, subjects, and major works of those artists writing technohorror.

As a product of mass culture, horror exists in a persistent state of generic reinvention. Theorist David Buckingham notes that genres aren't naturally prescribed by culture, but instead function in a "constant process of negotiation and change" (Chandler 3). Media is one of the greatest agents of this change. Emerging niche subgenres, such as the Autonomous Sensory Meridian Response (ASMR) video, for instance, capably illustrate how media technologies are reshaping the generic expectations that were once largely confined to the germinal gothic novel. This project, therefore, seeks to analyze texts and textual production practices through a pair of stipulative edicts, which are grounded in some of the central tenets of cultural studies:

- The artifacts discussed in this project are objects of historical discourse, reflecting certain assumptions and dynamics inherent in the political, social, and economic milieus of their time.
- Technological evolution is reflected in this body of historical discourse both as culturally
 mediated subjects within texts, while simultaneously changing the material form and
 function of texts.

Assessing thematic and material concerns is, therefore, critical to outlining a case for horror in general (and technohorror more specifically) as *the* literary field best negotiating the rapid cultural changes that technological evolution has had on contemporary society.

There is a delicious thrill in tempting the unknown—in daring the nightmare. Soren Kierkegaard, as evidenced in his 1844 philosophical essay "The Concept of Anxiety," understood this well. To illustrate the concept, he describes a man standing on a high precipice. That man experiences terror, of course, in his fear of falling; yet he also might experience the inexplicably horrific impulse to throw himself to his death. That critical choice—which so often surfaces in the best, most insightful horror—is what Kierkegaard describes as the vertigo of freedom. He recognizes the allure of standing at the precipice and the uncertainty inherent in that moment of macabre possibility. Horror stories (and particularly those within the realm of technohorror) are transporting that precipice to our e-readers and our books—to our computer screens and movie houses.

It is an exciting time to participate in the field, and to attempt to make sense of what the future holds for humanity. More than a decade ago, Winter foresaw these speculative freedoms:

As creators and consumers of horror, we find ourselves at a turning point not unlike that faced by the dreamers and devotees who confronted the end of the nineteenth century. Perhaps the correlation is fortuitous, the product of social and technological forces that have no concern for calendars. But I insist there is one certainty. It is time to move on: to another horror, one that, like each new day, has unlimited possibilities.

Those days have arrived, and the contemporary horror artist's gaze has shifted away from the monster that once re-affirmed our own basic humanity and toward the technological tools that are changing the very definition of what it means to be human.

PIONEERING PLATFORMS: IMAGINATION, INVENTION, AND INNOVATION IN HORROR CULTURES

With a clearer understanding of the characteristics of technohorror, we can now turn our attention to the traditions of creative and material production that have forged a path for contemporary artists and the propagation of their work. Digital dissonance takes many forms, from creeping into contemporary narratives in the appearance of technohorror to altering the publication and distribution practices for independent, hybrid, and traditionally published artists. In the two and a half centuries since Horace Walpole's ground-breaking gothic novel *The Castle of Otranto*, horror authors have demonstrated a remarkable propensity for innovation in the areas of artistic production and narrative invention. Until only recently, however, many writers and filmmakers were largely compelled to innovate within the bounded channels prescribed to them by larger corporate interests. Perhaps the most noteworthy development (both commercially and creatively) in the various publication cultures of the early twenty-first century is the emergence of the hybrid author.

Digital technologies, the Internet, and widespread shifting media-consumption habits are rapidly altering the complexion of commerce and creativity throughout industries ranging from publishing and gaming to filmmaking and television production. Bobby Adair, for instance, has leveraged digital publishing platforms and international distribution from Barnes & Noble and Amazon to independently sell tens of thousands of copies of his bestselling *Slow Burn* zombie series. Filmmakers like H.P. Mendoza are harnessing support through Kickstarter to finance such films as the critically acclaimed *I Am a Ghost* (2012), illustrating an independent ethic that has long been a defining characteristic of the horror field.

This pioneering spirit emerges, at least in part, as a practical response to the tension between the genre's popularity and its history of marginalization within academia and among mainstream publishers and film studios. In the latter half of the twentieth century, however, the critical and commercial attitudes toward horror began to shift. Alfred Hitchcock's *Psycho* (1960) paved the way for the genre's filmic golden era in the 1970s. Ira Levin, Peter Benchley, and Stephen King experienced unprecedented commercial literary success, prompting Penguin and Random House to develop imprints focusing closely on the genre. King published Danse Macabre in 1981, Noël Carroll released The Philosophy of Horror, or Paradoxes of the Heart in 1991, and Carol J. Clover published Men, Women, and Chain Saws: Gender in the Modern Horror Film in 1992, forming a trio of deeply influential critical texts on the complex and flexible nature of modern horror. Meaningful acknowledgement of the genre's formal "arrival" is even evident in a notable British author's opening passage from a recent and oft-cited essay: "I'm Ramsey Campbell. I write horror." Horror's penetration into all areas of art, from the independent, grassroots levels to the mainstream, corporate echelons, is both aesthetically and commercially impressive. AMC's *The Walking Dead*, for instance, remains among the most popular programs on television—both in terms of its Nielsen measurements and its ability to inspire audience engagement and fan devotion.

Why has horror largely experienced the Jekyll-and-Hyde treatment in the centuries following Walpole's eerie exploration of setting, superstition, and familial treachery? As often is the case with controversial art, this tension rests in the field's historical identity confusion. In his essay "After the Danse: Horror at the End of the Century," Michael Morrison notes the genre's perceptual fluidity while also addressing its remarkable capacity for reinvention:

Whether one conceives of horror as a genre, a marketing category, or simply a collection of texts that share a common tonality, horror today is a literary mode

that poses unique challenges to readers, publishers, and critics. Its singularly protean nature enables the appropriation and transmutation of materials from genres as diverse as science fiction, the romance novel, the western, and the spy thriller. (10)

Horror is a literary chameleon, to be sure, and its many noteworthy artists have pioneered an impressive array of artistic approaches and production methods as a matter of practical survival. Since its inception, horror has often been publically derided as artistic schlock—as subversive, ephemeral entertainment meant only to surprise, provoke, or titillate. This was a common view when gothic novels flourished throughout Europe. It persisted when penny dreadfuls, dime novels, and pulp magazines captivated an increasingly literate global readership in the nineteenth and twentieth centuries. It surfaced when EC Comics rose to prominence in the 1940s, and when horror writers took the genre underground with do-it-yourself zines in the 1980s and '90s. Because many of the mainstream channels of production have often been slow to embrace horror, artists working in the field have developed a variety of unconventional approaches to storytelling, filmmaking, publishing, and creating visual art. When Hollywood was largely closed to the field in the middle of the twentieth century, for instance, B-movies and grindhouse films proliferated in their distribution through drive-ins and alternative movie houses. When the venerated pages of *The New Yorker* (which has published multiple horror-themed issues in recent years) were inaccessible to the majority of working genre artists, small-press magazines like Cemetery Dance embraced their work with open arms.

In appraising the genre's historical standing within academia, Tony Magistrale, America's leading scholar on the work of Stephen King, offers this blunt observation:

Academia has always put on its most dour face when asked to view seriously critical work on the horror genre. Look at how long it has taken Stephen King to be considered a serious writer, and now it is only because the NEA, National Book Awards, and The New Yorker have helped to make his case. Even so, there has never been a special edition of a major academic journal in cinema studies

devoted to adaptations of King's work, much less the fiction upon which these films are based. Maybe this is just as well. Let academics continue to write their monographs about Jane Austin; those who are truly interested in exploring horror as the most effective barometer for our time will happily continue to do so.

In recent years, however, public sentiment, critical commentary, and the scholarly appreciation of horror have coalesced into a broader and more inclusive understanding of the field's considerable merits. In a recent survey of critical horror studies reported in *The Chronicle of* Higher Education, film scholar Bernice M. Murphy estimates that the last two decades have seen a boom in interest that is fast outpacing many other areas of inquiry in the humanities (Monaghan). Horror author and scholar Dr. Dale Bailey observes that recent academic scrutiny is at least partially responsible for "easing the passage between the gulag of pop fiction and the self-defined utopia of high culture" (7). That this broader enthusiasm for the genre roughly coincides with the diffusion of digital media should come as no surprise; the boundaries dividing media producers and consumers have never been more navigable. The peer-reviewed journal Horror Studies is a keen example of the rigorous attention now being paid to the genre. Userfriendly technologies of production—from digital cameras and film-editing software to word processors and push-button publishing platforms—now facilitate an impressive ecosystem for artistic creativity. Connect those circumstances with a genre that has traditionally illustrated a flair for experimentation and reinvention and you arrive at the prototype for textual innovation: the modern horror tale.

If horror fiction could best be personified by one of its central fascinations, the genre would almost certainly be a vampire. Like the horror story itself, the vampire trope originated in the oral tradition. It resurfaces in creative, innovative forms every few years as evolving technologies alter the nature of textual production and the narrative treatment of immortality, monstrosity, and supernatural predation. Like our fears of the unknown and our anxieties

concerning human frailty, the vampire tale is nearly universal, with legends circulating "in places as diverse as Greece and Scotland, Mexico, Brazil and China" (London 3). It typifies our basic fears of the monstrous, yet it also is among the first tropes that we illuminate with emerging tools at the apex of technohorror, as illustrated by F.W. Murnau's 1922 film *Nosferatu*. Murnau's film, made just a dozen years after D.W. Griffith shot Hollywood's first movie *In Old California*, remains a critical example of early filmic naturalism.

For a clearer understanding of how the vampire tale operates as horror's über-narrative, consider the peculiar case of Serbian soldier Arnold Paole, whose death in 1727 inspired one of the earliest documented cases of suspected vampirism. Upon the completion of his military service in Greece in the early eighteenth century, Paole settled in the tiny village of Meduegna. He cultivated crops and raised livestock while establishing himself in the isolated community near the Hungarian border. Although well-respected, Paole was known to be aloof and had intimated that he had been bitten by a vampire while serving in combat. He assured his fiancé that he had vanquished the creature and eaten of the soil of its grave to ward off any future attacks, but he suffered an untimely death shortly after this admission. Days after an uneventful burial, residents reported seeing Paole wandering the village at night. Confusion reigned and hearsay flourished; a full-blown hysteria erupted when four of those who claimed to have been "bothered" by Paole's nocturnal wanderings died under suspicious circumstances (Garcia). Forty days after burial, Paole's corpse was exhumed, and local authorities made the following report:

They found that he was complete and undecayed, and that fresh blood had flowed from his eyes, nose, mouth and ears; that the shirt and the coffin were completely bloody; that the old nails on his hands and feet, along with the skin, had fallen off and that new ones had grown; and since they saw from this that he was a true vampire, they drove a stake through his heart, according to their custom, whereby he gave an audible groan and bled copiously. Thereupon they burned the body to ashes and threw those in the grave. (Ladouceur 5)

Ultimately, more than a dozen deaths were attributed to Paole's vampiric influences on the village, and the hysteria persisted throughout the region until an official inquiry into the matter was ordered by the emperor of Austria. Surgeon Johannes Fluchinger investigated the peculiar stories circulating among the communities around Meduegna; Fluchinger's study (published in 1732) ultimately concluded that the subjects unearthed in seventeen of the forty exhumations conducted by his team were, in his learned opinion, vampires. Fluchinger's published report (*Visum et Repertum*, or *Seen and Discovered*), became a bestseller throughout Europe, disseminating in print the strange circumstances of an isolated regional narrative that had previously only flourished in oral contexts (Ladouceur 5).

Paole's humble (albeit exceedingly grim) origin story has greatly influenced our popular understanding of the vampire. Many of its germinal details, including his supposedly elongated canines, suppurating bloody mouth, and talon-like fingernails, are hallmarks of the vampire archetype. The particulars of the case inspired Dr. John Polidori's creation of the 1819 short story "The Vampyre." Polidori's tale directly references Paole's case, though Lord Ruthven, the story's protagonist, represents a stark departure from the rural farmer at the center of the oral legends. Polidori elevates the monster beyond the ghoulish physical traits outlined in Fluchinger's report in his depiction of a mysterious and charming aristocrat. Remnants of this early reimagining of the vampire endure in such recent television programs as *Buffy the Vampire Slayer* and *True Blood*, and in the *Twilight* film trilogy.

Nestled between Polidori's tale and the romanticized horrors of Bram Stoker's classic 1897 epistolary novel *Dracula* sits the epic *Varney the Vampire*; *or, the Feast of Blood*. Perhaps more than any other work, *Varney the Vampire* epitomizes the pioneering spirit of the horror text as innovative textual artifact, culturally significant entertainment, and economically viable

commodity. Written by James Malcom Rymer and Thomas Peckett Prest in the 1840s, the serialized installments of the bestselling narrative first appeared "in the form of very popular, and very cheap pamphlets (the so-called penny dreadfuls)" (Ladouceur 83). The vampire's appearance in the penny dreadfuls (and later in the dime novels of the American literary marketplace) marks a significant moment in the history of the horror story as a product of mass culture. Burgeoning economic opportunities in Europe and the United States merged with rapidly rising literacy rates to create a robust market for popular literature. In London, these factors spawned a thriving publishing culture that would have profound influences on the modern pulp era. As publishing historian John Springhall notes:

The market for printed material increased rapidly from the mid nineteenth century onwards, so that the publishing trade generally became a significant aspect of London's commercial development. Railway distribution, the penny post, and a growth of government spending, all helped to raise the scale of demand for print to an entirely new level. Periodical and newspaper publishing, in particular, saw a vast expansion in the second half of the century, owing to the enormous increase in circulations made possible by the rapid spread of literacy and repeal of the so-called 'taxes on knowledge'. (567)

Horror stories (pejoratively labeled "sensation fiction" by the critics of that era) such as "The dance of death; or the hangman's plot (1865-6); and The skeleton horseman; or, the shadow of death (1866)" thrilled a voracious audience willing to follow storylines stretching into publication runs sometimes numbering in the hundreds of installments (Springhall 572). In a publishing climate anticipating today's digital horror landscape, popular publications were produced by "a bohemian, underpaid, yet highly productive workforce" and became "by far the most alluring and low-priced form of escapist reading available" (Springhall 568). Today, such influential digital publications as the long-running Not One of Us and Allegory illustrate a similar production ethic while helping new writers break into publishing and presenting the work of the field's strongest talents.

In her study *American Pulp: How Paperbacks Brought Modernism to Mainstreet*, scholar Paula Rabinowitz notes the impact that the penny presses had on twentieth-century publishing cultures:

Kin to the penny dreadfuls and dime novels of the nineteenth century, pulp fiction became popular in the 1920s and 1930s mass-marketed magazines devoted to crime, passion, and science: *True Love, Amazing Stories, Black Mask.* By the mid-1920s, pulp had entered slang as a term for nonsense and excess—over-the-top sentimentality. The first successful pulp paperback line in the United States was published in 1939 by Pocket Books. These cheap twenty-five-cent books found in bus and train stations, soda fountains and candy stores, drugstores and newspaper kiosks called out to a mobile population of workingmen and women commuting on trolleys and subways to work in midsize cities, or crisscrossing the country as traveling salesmen or leisured vacationers. Their lurid, colorful covers telegraphed stories of sex and violence that traversed class and racial boundaries. (32-3)

Among the most successful of the early pulp magazines was *Weird Tales*, which began publishing a stable of influential horror authors beginning with its inception in 1923. Robert Bloch, Clark Ashton Smith, Robert E. Howard, Ray Bradbury, and H.P. Lovecraft featured prominently in the magazine's pages. *Weird Tales*, which enjoyed a healthy circulation and substantial critical acclaim for more than three decades, has been credited with guiding "horror out of the Victorian-Edwardian ghost-story channel it had been in for so long, and toward our modern perception of what the horror story is and what it should do" (King, *Danse Macabre* 219). Just as M. R. James suffused fresh life into the British ghost story, Lovecraft is thought to have used the pulps to liberate "horror fiction from traditional mythologies, concentrating instead on human insignificance in a horrific but essentially scientific (though incomprehensible) universe" (Bailey 92). The historical significance of the decades spanning 1850 and 1950 on our contemporary textual production practices and popular tastes cannot be understated. These decades featured artists experimenting with the mechanics and traditions of the horror narrative while working in an inexpensive medium that scholars such as Rabinowitz and Springhall credit

with delivering entertainment, culture, and increased levels of literacy to a rapidly expanding populace. For a field that had long been derided as inconsequential by the purveyors of so-called high culture, these are significant societal achievements. The era's artists changed the tone and tenor of the genre, sowing the narrative seeds that would permit the field to flourish critically, commercially, and artistically in the late twentieth century.

A comparably significant movement is currently underway in the horror field. A century after the transitional period between the penny presses and the modern pulps, horror artists are now using digital platforms such as Kindle Direct Publishing, Wattpad, and Nook Press to independently release their stories into an emerging and commercially robust publishing ecosystem. Adair, Joe Konrath, and Scott Nicholson have sold hundreds of thousands of copies of their digital horror stories via these rapidly evolving channels in just the last eight years, signifying the potential viability of a market that is offering unprecedented commercial opportunities to authors and artists.

Horror is a vibrant genre for literary invention and textual production innovation. In consideration of this claim, it is essential to establish a working definition for which materials qualify as "texts." In his 1999 study *Bibliography and the Sociology of Texts*, D.F. McKenzie describes the term as inclusive of "verbal, visual, oral, and numeric data, in the form of maps, prints, and music, or archives of recorded sound, of films, videos, and any computer-stored information, everything in fact from epigraphy to the latest forms of discography" (13). This broad definition (expanded here to include video and board games and graphic literature) covers the materials discussed throughout this study, although it is important to acknowledge the wide diffusion of textual experimentation now surfacing within these various media. The technologies of just the last few years have yielded artifacts resembling nothing like the texts McKenzie first

discussed when delivering his Panizzi lectures almost three decades ago (Bath and Schofield 188).

A keen example of this experimentation is evident in the form of the Autonomous Sensory Meridian Response (ASMR) video. ASMR videos feature men and women performing soothing, simple gestures (such as folding towels, sifting through piles of sand, or flipping through the pages of a book) while narrating a monologue in a barely audible whisper. The overall effect is to trigger "a pleasurable tingling that begins in the head and scalp, [then] shimmies down the spine and relaxes the entire body" (Gibson). These peculiar videos have emerged in a variety of esoteric domains and, despite their still-narrow popular reach, have been viewed hundreds of millions of times on YouTube. One of the most celebrated strains of this "willfully strange genre" is the field of ASMR horror (Kiberd).

ASMR horror videos represent a fascinating embodiment of the influences that digital technologies have recently had on the field. Frequently produced at home by modestly costumed independent artists working on laptop computers, these videos are both increasingly prevalent and remarkably profitable. Tales of botched surgeries, sentient robots, and alien abductions are a few common examples of "ASMR Horror,' a niche community within the already-niche world around the 'ASMR' sensory phenomenon" (Kiberd). Artists working in this obscure corner of the horror field respond directly to each other's presentations; they film homage videos to novels such as King's *Misery* and pay tribute to popular films and video games with their monologues. They utilize inexpensive and open-source technologies to create videos that run the gamut from technically impressive to refreshingly simple. The unrestrictive nature of ASMR horror culture is an essential component of the field's vitality. On the topic of breaking into the expanding community, popular artist Henrik Paavo Nilsson states:

I think people worry too much about the tech-y part of it. People get scared off, and they shouldn't—most things you can learn by looking them up, or just by doing. Not having a high grade camera or microphone isn't that important. Just use what you have. (Kiberd)

Once again, the vampire trope is featured prominently in the oeuvre of ASMR horror. Lisa Indigo, the artist shown here in the video "***ASMR*** Toreador Vampire Cranial Nerve

Examination—Selene's check-up," resides in The Netherlands. Her videos depicting life as a contemporary vampire have been viewed hundreds of thousands of times, inspiring an impressive fan following and providing her with a steady stream of revenue flowing from YouTube advertising and an enthusiastic following on Patreon, a crowdfunding Web site that helps artists establish a reliable monthly income. Indigo has more than 150 patrons that have collectively pledged nearly \$1200 dollars a month to view such productions as *Evening Star*, an original serialized vampire love story. I asked her about her work, the allure of the ASMR phenomenon, and the digital tools that have helped her create her art and explore this new genre of storytelling. On the appeal of the ASMR experience, she notes its malleability for different audiences:

I think there are multiple allures. First, there are the core people who get the physical ASMR sensation. Second, there are people who use it to fill an emotional void (to feel like they have someone close), as there can exist the illusion of presence through ASMR videos (and immersive equipment can help with this). This is probably why personal attention videos are so popular. Thirdly, there is a fringe audience who watch it either for entertainment value, or as white noise for studying, etc. (like having the radio or TV on). If definitely fits different needs for different people.

What I enjoy most is how limitless the genre is. As a creative field, it's unrestricted.

Indigo notes that she plays a number of roles in her videos (including the shy and nerdy girl, the wild child, and the femme fatale), although the cultural attraction to vampires and the undead retains its popularity for numerous reasons:

The fascination with vampires goes back centuries, likely having started due to the lack of medical knowledge of what happens to bodies when they die. They've since been romanticized with Bram Stoker's novel, and now, I think, nowadays represent seduction, corruption of the innocent, and escapism—because who doesn't want to be young and beautiful and have sex forever?

ASMR videos are just one (particularly striking) example of the narrative experimentation that now permeates the horror field. We live in an era marked by both abundant creative opportunity and widespread interconnectivity—a circumstance that inspires the creation of certain esoteric texts whose popular emergence is still in its early infancy. I encountered ASMR videos much the same way that I learned about local playground legends as a child—through the casual word-of-mouth musings by friends that are heavily active in areas of shared interest (in this case, digital horror narratives). The lack of creative limits and restrictions that Indigo mentions above is an important factor in the field's vitality and future growth in popularity, which I expect will continue to expand in years to come. To best make sense of digital dissonance and its effects on modern textual production, however, we can direct our attention away from such emerging specimens as the ASMR video and return to some prominent contemporary examples of the more traditional digital horror publication.

It should come as no surprise that Stephen King was the first major mainstream writer to publish a story exclusively in a digital-only format. King is both a writer of impressive imagination and a scholar of publishing, narrative form, and bibliography. Defining that last term as a formal discipline is another area in which McKenzie's lectures provide acute insights. In his chapter "The book as an expressive form," he contends that bibliography is:

...the only discipline which has consistently studied the composition, format design, and transmission of texts by writers, printers, and publishers; their distribution through different communities by wholesalers, retailers, and teachers; their collection and classification by librarians; their meaning for, and—I must add—their creative regeneration by, readers. (12)

McKenzie's synopsis advances a set of clear dictates for better understanding the myriad channels that stories often navigate in their emergence as textual artifacts. While the traditional printed book remains the primary expressive form that King has utilized throughout his career, he—like many of his colleagues in the horror field—took a fairly unconventional path toward achieving his present status as a distinguished author.

King's collection Secret Windows: Essays and Fiction on the Craft of Writing explains such topics as the sociological implications of market selection and the ramifications of textual platform for the contemporary writer. In the essay "The Horror Market Writer and the Ten Bears: A True Story," he takes a particularly clear-eyed view of the landscape for placing short stories when he first began publishing, noting that "the men's magazines (Playboy or Cavalier or Penthouse or Adam) are excellent markets for the beginning horror freelancer. They need lots of material, and most of them couldn't care less if you're an unknown" (17). Like the pulps, penny dreadfuls, and dimes, these were magazines with egalitarian editorial philosophies, catering to a working-class readership. King published the essay decades before winning the National Book Foundation's medal for distinguished contributions to letters in 2003. As Magistrale notes earlier in this essay, King's recognition by the NBF further validates popular fiction as an important component of our literary heritage, although such critics as Harold Bloom publicly lamented the fact that a writer who had his formative publications in the "men's magazines" might garner such high esteem.

Despite the humble origins of King's accessible brand of storytelling, his work has proven remarkably malleable throughout the last four decades. In comments foretelling the recent commercial explosion of transmedia storytelling, Sony executive Isiara Bey notes how King's work stretches across media while defying discrete literary categorization:

Several board members said they believed it was time that the awards began to define "American letters" more broadly than just the kind of literary fiction read by an elite. "It has to take more chances, and it has to explore different areas of writing," said Isiara Bey, a new board member who is also vice president of corporate affairs at the music division of Sony. "His work has translated so well in so many other mediums," Ms. Bey said. "I really liked that it was not only good on the page, it makes great movies, I mean, really great movies. (Kirkpatrick)

It was King's novella *Riding the Bullet*, a story of a ghostly encounter on the backroads of rural Maine, that first illustrated the financial and popular potential of digital publishing. Simon and Schuster distributed more than 400,000 copies on the story's release date, crashing servers at Web sites such as barnesandnoble.com and netlibrary.com. The publication of *Riding the Bullet*, regarded as the first digital-only mass market offering by a bestselling author, provoked a wide variety of responses, even within Simon and Schuster's digital publishing division. S&S digital publisher Kate Tentler expressed apprehension at the book's formatting, stating, "We hope people will forget the electronic-ness of all this" (Cruz). But Jack Romanos, the president and COO at the time, had a much more positive assessment of the phenomenon:

"I'm stunned," said Mr. Romanos, who has worked in publishing for more than 30 years. "I don't think anyone could have anticipated how many people are out there who are willing to accept the written word in a paperless format. It's got to be similar to what the people at Pocket Books went through years ago when they got the early sales results on the first paperbacks." (Carvajal)

It wasn't King's first foray into digital publishing. The author serialized his novel *The Plant* directly through stephenking.com, although he abandoned the story after six chapters. King has subsequently experimented with textual interface in a variety of contexts, publishing a couple of print-only pulp novels (*The Colorado Kid* and *Joyland*), an Amazon Kindle exclusive novella (*UR*), and a sizable collection of graphic novels (*The Stand*, most notably). In his comments on the publication of *Joyland*, King acknowledges the textual traditions inherent in certain story

types and how their format, presentation, and material nature impacts the overall reading experience:

I love crime, I love mysteries, and I love ghosts. That combo made Hard Case Crime the perfect venue for this book, which is one of my favorites. I also loved the paperbacks I grew up with as a kid, and for that reason, we're going to hold off on e-publishing this one for the time being. *Joyland* will be coming out in paperback, and folks who want to read it will have to buy the actual book. ("New Stephen...")

Romanos's reaction to *Riding the Bullet's* success deftly connects a pair of industry innovations (paperback distribution and electronic publication) that horror writers in particular have taken advantage of in disseminating their works. To underscore the pulps' impact as popular literature and foreshadow the dynamic, democratizing nature of the Internet on contemporary electronic books, Rabinowitz notes:

Books are supposedly among those items falling into disappearance as e-books replace paper and for various reasons become objects ripe for salvage...But at one time—the period I am investigating in this book, the late 1930s to the early 1960s...paperbacks were dynamic media, akin to our digital world of interactive electronics. Their pervasiveness achieved a kind of blanketing of culture that brought the words of thinkers and writers of every stripe into a vibrant relationship, through intense visual and linguistic stimulation, with an enormous mass of people. (40-1)

The "blanketing of culture" that Rabinowitz attributes to the diffusion of the pulps in the middle of the last century was also evident at a more concentrated, genre-specific level with horror texts in the years spanning 1975 and 2000—the year that *Riding the Bullet* forged a promising path for the future of digital texts.

We return a final time to the tradition of the vampire trope in demarcating a period in recent history that is notable both for an impressive cultural diffusion of niche storytelling and for the mainstream popular explosion of the horror novel. 'Salem's Lot (1975) was King's first bestselling novel, blending "a familiar genre motif (the vampire) with the mainstream narrative strategies of popular fiction (the rural small-town soap opera)" (Morrison 12). It paved the way

for writers such as Anne Rice, Thomas Harris, and Dean Koontz to position their works on the bestsellers' lists of *The New York Times* throughout the 1980s, a period that Magistrale and Morrison have called the decade of the horror bestseller.

A peculiar dichotomy surfaced, however, between the popularity of the mass-produced corporate bestseller and the explosion of the personalized, do-it-yourself horror magazine. Blockbuster horror fiction satisfied the entertainment needs of mass culture as artists such as Dan Simmons, John Saul, and Peter Straub released hugely popular novels. King experienced unprecedented commercial success while publishing so prolifically throughout the 1980s and 1990s that his literary output was sufficient to stock the shelves of the Stephen King Library, a popular mail-order subscription service that delivered a different title from the author's backlist every month. While the bestselling novel brought horror into the living rooms of the American middle class in record numbers, lesser-known artists built on the traditions of the penny presses and the pulp magazines by branching out to address esoteric subjects and niche tastes in cheap, do-it-yourself publications known as "zines."

The zine's emergence was due in large part to the explosion in popularity of the home computer. In her exploration of information technology and networked computing "Inventing the Medium," Janet Murray credits the 1980s "with the introduction of the first personal computers and the introduction of word processing software, bringing a new accessibility of computational power to those outside the computer lab" (9). Programs such as Apple Writer and AppleWorks provided computing enthusiasts with the opportunity to create digital texts. Broderbund's *The Print Shop* and The Learning Company's *Children's Writing and Publishing Center* facilitated design and layout functions, allowing artists to create quasi-professional publications. In her essay "Zines: A Personal History," Elizabeth O'Brien notes that one didn't even need a computer

to craft a publication, stating that to "make one, only three things are needed: paper, something to write with, and access to a photocopier" (91). With print runs numbering in the low hundreds, zines were produced by editors with "seemingly boundless energy and fierce commitment" (Morrison 19). Most importantly, they provided artists with an outlet for thematically risky storytelling while nourishing the formative production expertise for many publishers and editors still working in the field today. Cemetery Dance, a leading specialty publisher that has produced more than three hundred books (including a number of special editions of King's works) and more than seventy issues of its eponymous magazine, ascended to its current position of industry prestige from such humble beginnings. Created by Richard Chizmar shortly after his graduation from college, the premier issue features a:

...haunting, black-and-white cover drawn by Chizmar's college roommate, [and] forty-eight poorly designed pages of horror and suspense. But it's a nice mix—short stories, interviews, news, reviews. Familiar names like Bentley Little, David Silva, Steve Rasnic Tem, and Barry Hoffman. 1,000 copies printed and about half sold. It's not a bad start. A nice hobby, Chizmar thinks... ("A Very...")

Cemetery Dance followed in the footsteps of such venerable publications as Weird Tales and The Twilight Zone while also foreshadowing the do-it-yourself ethos that would make the explosion of e-zines a dozen years later a practical reality. Morrison notes the significance that these DIY and small-press magazines had on encouraging the early careers of many significant genre artists:

In issue after issue, appearing on schedules as erratic as their contents, they offered a training field for Thomas Ligotti, Richard Christian Matheson, Wayne Allen Sallee, David J. Schow, Poppy Z. Brite, Nina Kiriki Hoffman, Kathe Koja, and many new writers who later graduated to the proving ground of mainstream publishing. (19)

In a keen example of the zine's influence on modern horror culture and its malleability as a textual artifact, consider the evolution of *The Horror Fiction Review*. The publication, which

examines texts ranging from some of the most obscure e-zines operating today to mainstream bestsellers, began its run as a "14-20 paged, stapled-Xerox publication" (*The Horror Fiction Review*). It operated in print between 2003 and 2008, when escalating production costs prompted a migration into its current digital space. Now with tens of thousands of unique visitors each month and an eager, expanding, and influential lineup of contributors, *The Horror Fiction Review* capably illustrates how the passions of a dedicated fan community can coalesce within digital spaces to create texts capable of reaching a wider and more engaged readership.

The Internet's emergence as America's meta-medium is facilitating a fresh approach to Rabinowitz's "blanketing of culture" that is predicated on accessibility, diversity, and creativity. Accessibility comes in a variety of forms—from providing innovative direct-to-consumer publication models that were difficult to navigate in the traditional print publishing landscape to unlocking opportunities for creativity in subjects that had largely been marginalized (and ignored altogether) by mainstream concerns.

Fordham University media theorist Paul Levinson contends that current media platforms should, by definition, be accessible, open, mutually catalytic, dynamic, and inexpensive (3-5). To illustrate the recent and rapid changes influencing textual production at the point of authorial market selection, consider the diminishing utility of the *Writer's Market* publishing resource. Authors have turned to the publication for more than eight decades in an effort to find potential homes for their works. In surveying the 2010 edition of the text (the most recent year in which the campus library at Florida State College at Jacksonville had purchased a physical copy), only seven magazines were listed as requesting horror fiction for their pages. This number woefully underestimates the contemporary demand for short horror stories.

In 2005, duotrope.com emerged as a free and searchable digital database listing publishing companies committed to disseminating a variety of literary forms, including poetry, short fiction, novels, and nonfiction prose. Duotrope changed its business model to a subscription-based service a few years ago and, illustrating Levinson's views of new media tools operating at a low cost and compelling each other toward refinement and accessibility, The Grinder emerged almost immediately as a free alternative to a service that had become indispensable for many genre artists. The Grinder's operators note on the site's home page that they believe "the value of our product lies in its availability and as such The Grinder is and always will be free to all users for all features." While the Writer's Market now offers its own digital subscription content as well, The Grinder's popularity and accessibility serves as an instructive case study for considering how digital tools are remediating certain aspects of publishing culture. Finally, to further underscore the explosion in both creativity and utility now flourishing in the digital horror landscape, a recent search of The Grinder's database limited to publications presenting short horror stories yields a whopping 196 markets (as of March 21, 2017)—a far cry from the scant seven listings found in the 2010 print edition of the Writer's Market.

Hugh Howey, who has self-published and sold millions of copies of his dystopic thrillers through a variety of digital channels, notes that a significant amount of publishing influence is now shifting from the east to the west coast. Traditional publishers operating in New York City are losing market share, revenue, and creative capital to companies such as Amazon and Apple. In summarizing the tenor of how digital technologies have unsettled traditional publishing, he observes:

All manner of publishing has been greatly disrupted, but it's often hard to see because what has changed is what's now missing from our lives. And these missing things have not disappeared all at once. Rather, it's been a gradual vanishing. Your glovebox is no longer crowded with maps. The lowest bookshelf in the living room no longer sags under a full set of encyclopedia. There is no phone book in the top kitchen drawer. Manuals no longer come with every device. How-to books have gone away. Cookbooks as well. Driveways are no longer dotted with newspapers. And the daily commute sees far more people staring at screens rather than anything printed on paper.

The scope of digital dissonance that Howey addresses has indeed altered the relationship between artists, producers, and consumers, and these changes manifest themselves culturally in both sips and swallows. Bestselling authors such as Rice and King have self-published manuscripts in recent years; successful independent authors have retained their digital rights while negotiating "print-only" contracts with traditional publishers, an intriguing example of collaboration illustrating the opportunities emerging for artists of all backgrounds.

In the (largely) closed media culture of the twentieth century, the idea of a self-published author negotiating for, and actually receiving, a limited-rights contract with one of the dominant players in the publishing hegemony would have been unheard of. Now, dynamic authorial hybridity is a key economic component of a changing media landscape. Self-published author Blake Crouch has a much better chance of selling his *Wayward Pines* series to a media company such as FOX, for instance, in an era in which open, mutually catalytic publishing platforms make it possible for independent authors to position themselves at the top of Amazon's Best Sellers lists. Alternatively, past staples on similar lists at *The New York Times* such as Barry Eisler have terminated their relationships with traditional publishers to find new methods of gaining increased control. After declaring that he would eschew a large publishing deal with St. Martin's to self-publish his novel *The Detachment*, he was approached by Amazon with an offer that gave him much more flexibility over how his stories entered the market:

"Amazon read about it and approached me with what is essentially a hybrid deal, the best of both worlds," Eisler tells NPR's Lynn Neary. Eisler retained control

over packaging and business decisions that were important to him. The digital title was released about a month after the manuscript was finished. And he was thankful to have "the entire Amazon marketing juggernaut behind the book" — something an author misses out on when self-publishing. "Amazon offered me the best of both worlds, and it really worked out well," he says. ("Barry Eisler's 'Detachment'...")

Numerous timely examples underscore how independent genre artists have inverted the gatekeeping role that so-often defined twentieth century media production. E.L. James's Fifty Shades of Grey trilogy, for instance, first emerged as serialized fanfiction in various forums dedicated to the discussion of Stephanie Meyer's Twilight series. As interest in James's writing grew, a small Australian publisher called The Writer's Coffee Shop released the trilogy in ebook format and the stories went viral. Random House took notice, signing James to its Vintage imprint in a major publishing deal (Donnelly). Horror authors such as Ania Ahlborn and Iain Rob Wright have recently taken similar (albeit less financially lucrative) paths from independent publishing to traditional print distribution while maintaining their digital rights in addition to the ability to self-publish new works moving forward. This represents a brave new world for a publishing culture with a history of using draconian competition clauses to bind artists to restrictive contracts. Anthropologist Grant McCracken has written about the phenomenon of circumventing long-established gatekeepers; he calls it the "withering of the witherers," which is characterized by "the breakdown of the power [that] traditional groups exercise over cultural expression" (Jenkins 197-8). The level of collaboration increasingly occurring between independent artists and major publishing corporations yields a publication status that Konrath and thriller writer Eisler have called "hybrid authorship," and which Howey feels is the strongest example of how digital technologies have positively impacted the industry:

I get to work with wonderful editors at Random House and Simon & Schuster and go on a book tour, things that I would never be able to do on my own. But being self-published means that I get to produce three works a year, I get to price my

works where they'll sell instead of pricing them so high. So there are advantages to both, and trying to pick the best from both worlds, to me, is ideal. It just requires a bit of good fortune to get to a position with your self-publishing career that you can get into the traditional world. And it also requires some bravery from traditionally published authors who want to become hybrid to break out and do some self-publishing. Some New York Times bestselling authors are now self-publishing in order to augment their earnings, and I think that's brilliant. (Klems)

Dynamic hybridity is an apt concept for considering the disruptive role that technology has had on creative expression and knowledge production in the twenty-first century. Both individual artists and entire knowledge communities are navigating a flexible production culture that is wrestling with traditional attitudes about the nature of textuality while foretelling the near future of publishing, content curation, authorship, and scholarship.

In an effort to better understand how these topics are shaping the horror field, I spent much of the first half of 2016 in a series of conversations with a variety of artists, scholars, editors, and publishers. The penultimate section of this essay collects some of the respondents' views on prominent technohorror themes, authorship, and textual production in these first years of the new century. For the sake of brevity, I present only a sampling of the various observations that these individuals have shared. To read the full interviews, please consult the appendices at the conclusion of this research project.

Interview Findings and the Evolving Digital Paradigm

The concept that our culture is now deeply immersed in a period of profound change regarding our reading and communication behaviors seems undeniable. This period of change has, in the course of just a half a century, altered the ways in which we speak, learn, and present information. As Arthur Schlesinger, Jr., notes in *The Cycles of American History*, these changes are gradual and additive, but their cumulative results can be profound:

The last two lifetimes have seen more scientific and technological achievement than the first 798 put together. The shift to a swiftly changing society has not

greatly affected the surfaces of daily living. The New York of the 1980s resembles the New York of the 1930s more than the New York of the 1930s resembled the New York of the 1880s. But the shift has profoundly altered inner perceptions and expectations. It has placed traditional roles and institutions under severe and incomprehensible strain. (xii)

One of the prominent institutions greatly impacted by digital dissonance is the publishing industry. In the 2013 article "Digital Disruption 'Speeding Up," found in the publishing-industry news source *The Bookseller*, media strategist Mark Oliver predicts that the market effects of digital publishing have only recently approached a measure of pervasive industry change. He asserts that the rise of self-publishing and dynamic authorial hybridity merely represent a "first wave" of digital disruption, and that the ubiquity of digital subscription services, e-lending in libraries, and the threat of piracy represent critical future challenges to the industry (Farrington 9). These predications have come to pass in the last few years, as Amazon's popular Kindle Unlimited program has become the equivalent of a book-streaming service for avid digital readers. Services such as Overdrive and EAF (ebooksareforever) are making it easier for authors and digital-book readers to connect in the thousands of libraries in the United States and Canada.

Just a year later, at the 2014 Futurebook Conference, *The Bookseller's* annual Rising Stars list featured "40 entries and 39 different job titles, some of which may have been unfathomable as recently as five years ago, let alone a century: group digital archivist, consumer insight director, head of technology and new media" (Tivnan). These changes, which some media executives have labeled no less than a "cultural shift" in how we interact with information, have re-shaped the publishing landscape.

The respondents featured here answered questions both on the practical aspects of their work (writing, publicity and marketing, curating content, editing and acquisitions, and publishing) and, where applicable, how technology impacts the content of what they produce.

"I am a technologist," notes Ken Liu, "and I like to think about the way technology acts as a multiplier for the human will." Winner of the Hugo, Nebula, and World Fantasy awards, Liu's fiction frequently engages with technohorror's inclinations for inspiring speculative dread in an attempt to make sense of human entropy:

As much as computer networking has enriched our world, its potential for destruction is far greater and not as well understood. Cyberwarfare is something that all the world's governments are pursuing, and as our world becomes ever more dependent on automation and ubiquitous computing, a day will come when cyberwarfare will lead to the deaths of millions.

In Liu's fiction, technology by itself is typically presented as neither good nor bad, although it does often serve as a mechanism to amplify the human capacity for engagement with either quality. He observes that technology is "an inexorable force that has its own desires and goals and needs, an always *becoming* that is both beautiful and horrible." These are powerful ideas predicated on both the inevitability and the unpredictability of technological adaptation that play themselves out in his tales "Reborn," "Simulacrum," and "The Gods Have Not Died in Vain," which invariably depict horrific visions of the posthuman and human-computer hybrid in an uncertain future.

Technology's complexity also surfaces more practically in navigating the production methods of contemporary authorship, where Liu notes that he reaches his greatest number of readers via e-books, although digital publishing interfaces have also discouraged some aspects of textual experimentation—such as the inclusion of foreign characters (his work frequently

features Chinese prose), emoji, calligraphy, and maps. The net effects of utilizing the Internet as a primary communication channel on his work, however, has largely been positive, as Liu notes:

I've gotten to know a lot of my fans through Twitter and Facebook, and I've gained a lot of friends from around the world due to having my stories available for free on the web and social media. Many of these friendships and relationships have turned out to be incredibly rewarding, both in intangible ways and in terms of business opportunities. I would not have been become a translator from Chinese to English, and half of my career would not have happened, without the Internet enabling me to connect with writers and friends in China.

Liu ultimately remarks that, despite some of the formal limitations imposed by e-readers on certain narratives, "publishing is now a largely digital business" and that he is "tempted to try indie publishing with projects that are less appealing to traditional publishers."

Magistrale and Morrison also generously offered to answer questions for this study. The editors of *A Dark Night's Dreaming: Contemporary American Horror Fiction* have worked in critical horror studies for decades, and their perspectives on horror fiction encompass both the booming market for the genre that emerged in the 1980s and the more recent shift toward digital content in the twenty-first century. The scholars express somewhat divergent views on the role that technology has played in the genre's overall health.

"No question that the new technologies have had an impact on recent horror art, both in its creation and accessibility," Magistrale observes. He continues:

Digital technologies have made it possible for any aficionado of the genre to pick up a camera and begin filming their own nightmares. Home-grown horror has always had an important place in the genre—think of *Texas Chainsaw* as just one of the many examples...I think the genre is alive and well, and not just because of advances in technology.

Morrison assesses the genre's health a bit differently, and he acknowledges the difficulties inherent in attempting to ascertain technology's role in the field's decline:

In my view, the health of the horror genre *per se* has declined since the 1980s. The technological developments referred to in your question have diffused genre

stories, making them more difficult to locate (except in best-of-the-year anthologies) and lessening quality control that used to be imposed by conventional publishing apparatuses, be they major or small presses. On the other hand, horror has increasingly diffused into mainstream fiction and the ambiguous catch-all category of "weird fiction." Many of these developments parallel the breakdown of genre boundaries that have affected science fiction and, to a lesser extent, fantasy. So horror *as a mode* remains healthy, in the sense that excellent horror fiction at all lengths can be found, but it is much more difficult to identify and is undergoing a mutation into new forms, [the] nature of which cannot yet be identified. How much of this mutation can be attributed to digital technologies is unclear to me.

Morrison succinctly characterizes a persistent tension in artistic discernment that surfaces often in the responses to the interview questionnaires that were circulated for this research project.

Game designer, publisher, editor, and author Angel Leigh McCoy expresses a similar sentiment in her thoughts on the field. The editor of *Another Dimension Magazine* states:

Publishing and getting published have changed in so many ways since the digital revolution. Anyone can self-publish now, or create an anthology or e-zine of others' works. This has had both positive and negative repercussions on the industry. A vast number of people who don't have the skills to write professionally are putting out content. This creates a lot of white noise and makes it harder for the quality material to rise to the surface. Thus, skilled writers who are serious about making a living at it have found it more difficult to actually make their mark, build an audience, and get their books noticed.

These are concerns that techno-critic Andrew Keen first articulated a decade ago in his oft-cited essay "Web 2.0." In that influential article on the Internet's effects on the production of knowledge claims, Keen argues that user-generated digital content is "inherently dangerous for the vitality of culture and the arts." His argument rests on the dual platform that citizen journalism and the cacophony of social media weakens the authority of the fourth estate, and that a flood of content marginalizes authentic artistic brilliance. Author and editor Nick Mamatas was kind enough to offer a specific example of the phenomenon in practice:

I have access to Bookscan, which measures actual physical book sales—that is, sales to individuals from either bookstores or various e-tailers. The books are coded in a variety of genres, one of which is Horror/Occult. I was surprised to

find a few months ago that the bestseller was a POD title based on the online video game *Five Nights at Freddy's*. Keep in mind that POD titles are, as a rule, not available in bookstores, and that Bookscan does not measure e-book sales. So simply by having a channel through amazon.com and bn.com, this book pushed past all the horror titles available in stores and sold thousands of copies in a week.

It's a self-published book by the creator of a homebrew video game, and it reads very poorly. It starts with the death of a character, and then enters into a flashback, for example, and the language and sentence structure basically would have meant an instant rejection letter.

Ultimately, Mamatas provides a clear-eyed appraisal of the book's place in the marketplace:

Is this bad? Yes. It's subliterate material, based on a not-very-interesting point-and-click shock/twitch game, as the preferred reading material over writers who actually have skill. I suppose the best we can say is that this sort of work is not cynical. It's a hobby/diversion that just happened to make the hobbyist a huge amount of money in a short period of time.

Reader advisor, editor, and horror critic Kirsten Kowalewski, a contributor to the Web repository <u>Monster Librarian</u>, echoes these sentiments while also noting how digital curation has become problematic for libraries:

> Digital publishing opened up the horror genre to a flood of writing, long and short, with varying quality. Unfortunately, the flip side of this is that there are a lot of self-published books out now that have not been vetted by gatekeepers (like editors and beta readers) so it is a challenge to find the self-published books that are well-written and effectively edited in the crowd. Libraries have been affected by digital publishing as well. The major publishers set conditions on the use and purchase of e-books in libraries, and this also had to be done through a middleman, OverDrive. This has made it more expensive and difficult to connect e-books with readers, and again, this mainly concerns major publishers. Digital communication and bookish websites and blogs does mean that readers and librarians are more aware of indie and small presses than they used to be. I think the ease of self-publishing e-books means that more people have published things that wouldn't fit in a typical mainstream publishing niche, and it has allowed some people who were initially published in the small press to make their work more generally available, such as Rot, by Michele Lee (full disclosure, Michele writes for Monster Librarian)—in general, publishing mostly replicates what has already been successful. I do think that a writer can take advantage of an existing trend (like zombie fiction) to play with the trope or approach it differently, just because publishers see that zombies are currently popular. Thus we get books like The Girl With All The Gifts or The Reapers Are The Angels, books that, within the trend, get to shape their story a little differently.

As these industry observers note, digital dissonance is an ongoing phenomenon whose effects on horror culture are likely to be felt for years to come. However, maintaining a relative perspective on the so-called "tsunami of crap" concerning independent artistic production illustrates that our culture has long been inundated with an abundance of choice when it comes to entertainment and art. If anything, Web resources such as Monster Librarian—in addition to the word-of-mouth benefits of social media diffusion—have aided consumers in their practices of artistic discernment. Konrath bluntly counters Keen's claims thusly:

Some people believe the ease of self-publishing means that millions of wannabe writers will flood the market with their crummy e-books, and the good authors will get lost in the morass, and then family values will go unprotected and the economy will collapse and the world will crash into the sun and puppies and kittens by the truckload will die horrible, screaming deaths.

Or something like that.

This is bullshit, of course. A myth. A fabrication. One rooted in envy and fear.

Readers aren't the ones worried about the scores of new e-books being released. They have no need to be worried. There are already billions of books in the world. A few more million won't make a difference.

Readers are able to find what they want, quite easily. They can go into a bookstore and come out with a purchase, even though that store stocks 150,000 titles. They can go into a library, and ten minutes later walk out with a handful of books that interest them.

The sheer volume of artistic content now available to audiences is very likely greater than at any time in human history, but the net effect of the emergence of various digital production tools and publishing platforms has likely yielded more benefits than detriments for the horror field. As Bailey notes:

What has happened is that it's opened enormous opportunities for publication that simply didn't exist when I started publishing twenty-five years ago (something like that, anyway). The online market is thriving, and online publication—for short fiction anyway—has I think eclipsed the traditional markets in many ways.

They certainly carry the same prestige (the best of them, anyway) and often pay more.

One such venue, *Nightmare Magazine*, exemplifies Bailey's observations while illustrating some of the imagination, invention, and innovation noted in this essay's subtitle. *Nightmare Magazine* has established a business model sufficient to pay its fiction contributors rates that qualify for professional-status consideration (six cents per word) by the Horror Writers Association. It publishes long-form non-fiction and interviews with such distinguished authors as Joyce Carol Oates and Chuck Palahniuk. It produces such diverse publications as the Women Destroy Horror!, Queers Destroy Horror!, and People of Colo(u)r Destroy Horror! special issues. In many significant ways, *Nightmare Magazine* has established itself as the digital contemporary for news, entertainment, and theory in the horror community—much like *Weird Tales* did almost a century ago, although with an even more approachable editorial philosophy.

As Levinson notes, new media exists in a constant state of remediation and adaptation.

Library Journal, the leading publication of the library community, is in the second year of development on its digital-content platform SELF-e, which facilitates the free distribution of books and stories written by independent authors or published by small presses. SELF-e is a vetted, curated service in which genre specialists review independent stories before ultimately deciding whether to adopt texts for national distribution to a network of hundreds of libraries. The service is free to authors. It illustrates Levinson's principle that new media should be mutually catalytic, proposing a challenge to OverDrive's business model and current hold on the market for distributing digital books to American libraries. It exists to empower independent authors, build local writing communities, and help readers find new texts:

Through the newly curated SELF-e Select Collections, your library can make all of the very best SELF-e e-books, submitted from around the globe, available to your patrons. Whether you are interested in expanding your local reach or

increasing the diversity of your e-book offerings, SELF-e is here to help. With Pressbooks and SELF-e, libraries have the ability to become full-service writing centers for their local author communities.

Much has changed in the decade since Henry Jenkins released his important study *Convergence Culture: Where Old and New Media Collide*. In that text, he predicts an uncertain future in which audience participation and independent content production will alter a wide variety of public cultures. In the horror field, those effects are now being felt in the emergence of such venues as *Nightmare Magazine*. It is felt in the success of such independent authors as Adair, Konrath, and Howey, and in the presence of such resources as Monster Librarian and SELF-e.

Exploring an Eternal Narrative

By drawing a line back to the legend of the vampire that first emerged in the early eighteenth century, we can gain a clearer sense for how the communicative qualities of texts shift through time and in response to developments in media production.

Table 2: Popular Vampire Narratives Through Time and Across Media

Communication Domain	Communication Forms	Communication Origins	Communication Characteristics	Respresentative Examples
Orality	myths, legends, fairy tales, urban legends, hearsay	human social groups from time immemorial	dynamic, proverbial, cautionary, reactionary, moralistic	Arnold Paole case study Babylonian myth of Lilith
Literacy	scrivening, print (pamphlets, papers, books, magazines), and audio (secondary/ residual orality)	alphabetic cultures, the incunable era, modernity, postmodernity, and the present	linear, generative, additive, enclosed, traditional, authoritative, fomal	Polidori's "The Vampyre" Stoker's Dracula The Mercury Theatre on the Air's Dracula (1938) King's Salems' Lot
Filmic	films and episodic television	modernity, postmodernity, and the present	linear, experimental, expressive, visual, formal	Murnau's Nosferatu (1922) Buffy the Vampire Slayer (1997-2003) From Dusk Till Dawn (1996) What We Do in the Shadows (2014)
Digital	Web sites, e-zines, multimodal texts, hypertexual transmedia stories	modernity, postmodernity, and the present	hybrid, additive, experimental, networked, dynamic, proverbial, visual	ASMR horror videos The Nightvision Experiment

Throughout the recent history of textual production, narratology, and media diffusion, the vampire tale has persisted as a culturally vital über-narrative. From its fearful origins in primary orality to its contemporary presence in the form of the ASMR video, the trope has proven remarkably resilient in the face of an evolving media culture and shifting social mores. Its persistence across time and space underlines the notion that, while artifacts may take different textual forms with technology's forward progress, important stories (and the artists that bring them to life) are timeless and adaptable. The vampire trope's widespread popularity in the digital

fan fiction and amateur filmmaking cultures now flourishing on the Internet speaks to technohorror's resilience in yet another culturally significant domain to be discussed at length in the following chapter: the folk tradition.

FROM FOLKLORE TO NETLORE: ESOTERIC DIGITAL CULTURES AND THE REMEDIATION OF HORRIFIC FOLK NARRATIVES

Anyone who is even slightly familiar with the history of communications knows that every new technology for thinking involves a trade-off. It giveth and taketh away, although not quite in equal measure.

~ Neil Postman

The epigraph above, taken from Postman's keen examination of twentieth-century media ecology Amusing Ourselves to Death: Public Discourse in the Age of Show Business, accurately characterizes the myriad changes that a recent influx of digital technologies has had on contemporary folklore studies. As various media influence consciousness over time, they transform our understanding of such fundamentally critical humanistic qualities as authority, authenticity, and materiality. Cultural studies and the digital humanities ascend from rich theoretical traditions founded on texts interrogating the role that changing communication technologies have had on cognition, perception, and the production of knowledge. Walter Ong's Orality and Literacy: The Technologizing of the Word, for instance, chronicles the many ways in which language, speech, and writing have influenced human social structures throughout history. Jay David Bolter's Writing Space: Computers, Hypertext, and the Remediation of Print builds on Ong's theories in its analyses of how digital writing tools are now altering our production and reception practices for engaging with texts. And Russell Frank's Newslore: Contemporary Folklore on the Internet skillfully fuses Ong's theories on the dynamic nature of oral cultures with Bolter's observations on how digital technologies are remediating long-established narrative practices in new and creative contexts.

Folklore remains genetically critical to the traditions, forms, and emotional imperatives of horror culture. These narratives, from orally transmitted myths to printed fables and recorded

legends, can be traced through the history of many prominent tales in the horror genre. As Morris Dickstein notes in "The Aesthetics of Fright," horror folklore is notable for its practicality, durability, and narrative abundance:

People throughout history have told each other ghost stories as a way of both terrifying and reassuring themselves by making their fears explicit...Primitive man rehearsed myths and fables that gave form and dimension to the unknown—made it more human, more comprehensible. The endless permutations of the Dracula and Frankenstein stories suggest that these are some modern counterparts to ancient myths. (55)

Note the use of the verb "told" in the passage above. The oral nature of disseminating folklore—often occurring in peer-to-peer communication or within small groups—is experiencing a phase shift as born-digital folklore (or "netlore," as some scholars have called it) now proliferates on the Internet. Where once an urban legend might have been whispered around a campfire or discussed at a water cooler by a single performer and a few listeners, contemporary folklore often reaches audiences stretching into the thousands. Indeed, an ironic etymological condition is now evident in the diffusion of netlore; practitioners eagerly anticipate their work "going viral" (spreading rapidly through various digital communities), a phrase with a positive meaning that conveyed dire public health connotations in the previous century.

Where short, detailed stories about escaped prisoners, deranged babysitters, and exploding spider nests once flourished in college dorm rooms and at overnight sleepovers, many of these subversive, reactionary tales are now finding a home in Internet forums, chatrooms, and e-mail inboxes. The mode of transmission isn't the only component of contemporary folklore undergoing change; the emergent narratives themselves have adopted an often pessimistic view of technology, epitomizing the nature of modern technohorror. There are tragic tales of fatal GPS malfunctions, deadly cellular phone mishaps, and malevolent spirits haunting our digital devices. Where once ghosts stalked the ancestral halls of the rural manor house, now they surface in

digitally enhanced photographs that, at least upon first glance, seem plausibly authentic. These are important developments, both for the broader field of popular culture and for practitioners and enthusiasts of technohorror, as there has been some anxiety concerning folklore's ongoing health in the midst of a communications paradigm shift.

As noted in the first two chapters of this study, one of the persistent cultural anxieties within media production cultures of the twenty-first century concerns the ongoing transition from print to digital primacy. For the field of folklore studies, this tension is particularly pronounced because (much like critical horror studies) the discipline has suffered from complicated issues of identity since its broader emergence in the early nineteenth century. It is remarkable that, in terms of both academic interest and general prominence, these rapidly evolving and oncemarginalized fields have experienced a surge in esteem, popularity, and critical importance in the new millennium. Engagement with technohorror, it appears, is proving creatively productive for artists, experientially cathartic for consumers, and collectively binding for members of numerous folk communities.

The term "folklore" has a relatively short etymology, with the *Oxford English Dictionary* tracing its usage to 1846. Compounding its youth as a formal discursive topic is the field's nebulous nature. Folk artifacts include everything from songs, stories, and jokes to fencebuilding practices, greetings, and leave-taking formulas. While the frequently immaterial nature of the field has made it difficult for some scholars to ascertain the core of its contributions to the production of knowledge, it is undeniable that the folk traditions of certain esoteric, regional, national, and international groups have had an indelible effect on the sustenance of various cultures. In his instrumental 1980 text *Interpreting Folklore*, Alan Dundes quotes pioneering

Scottish folklorist Andrew Lang in illustrating a long-held perceptional tension concerning the field's contributions to broader academia:

There is a science, Archeology, which collects and compares the material relics of old races, the axes and arrow-heads. There is a form of study, folklore, which collects and compares the similar but immaterial relics of old races, the surviving superstitions and stories, the ideas which are in our time but not of it. (3)

The immateriality of these artifacts, however, cannot belie their significance to the healthy evolution of various social cultures. Here in Florida, for instance, the many Cracker tales (stylized yarns with moral implications) that proliferated throughout rural ranching communities between 1850 and 1950 remain an important component of the state's cultural heritage. Such folklore practices as embarking upon the legend trip, in which groups of age-mates physically visit locations (such as Jacksonville's supposedly haunted Annie Lytle Elementary School) or gather to enact stylized rituals (like performing the rites commonly believed to summon Bloody Mary's spectral presence), illustrates the field's ample diversity. In the twentieth century, practice in the field primarily consisted of collecting, documenting, and studying folk artifacts that were heavily influenced by the oral tradition. Tall tales, regional folk songs, urban legends, and off-color jokes are but a few of the communicative forms that were prevalent in the recent past. In summarizing how the concept of folklore is now changing in a period of digital dissonance, Frank notes:

...in the earliest conceptualizations of folklore, the "folk" were rural people whose lore was passed down from generation to generation and circulated via face-to-face interaction. Verbal genres were synonymous with oral tradition. Crafts were learned through informal apprenticeships rather than from schools and books. Newslore [netlore] possesses none of these attributes: its longevity can be measured in presidencies rather than generations, and it circulates remotely rather than face-to-face, among people who are likelier to live in an urban apartment or a suburban house than on a family farmstead. (7)

Folklore studies, even in the more "tangible" (physical/material) historical context of twentiethcentury media production, has experienced an unfortunate history of marginalization within broader academia. In my time as an educator teaching folklore studies at Florida State College at Jacksonville, I have had colleagues from disciplines outside of the social sciences pose sincere questions on how the examination of folklore functions in the production of "legitimate" knowledge claims. How is recording and analyzing a campfire story, for instance, a worthy investigation into narrative theory? How can examining the selection of building materials and the choice of fencing styles in Florida's rural cattle country possibly communicate important economic and social mores to the larger ranching community? These were tricky questions in the twentieth century that only became more complicated with the Internet's emergence in the last two decades for, as Frank notes, "biases against folklore, especially humorous folklore, run deep. It is considered in ane, offensive, and unimportant. In fact, the whole teeming mess that is the Internet, writes David Weinberger, 'is the elite's nightmare of the hoi polloi, the rabble, the mob" (14). As our media-consumption habits have gradually turned our collective attention away from some of the prominent print, visual, and audio materials of the twentieth century and toward emerging digital content found on the Internet, folklore scholars have speculated (with some anxiety) on the field's future. What might happen to studying the dissemination of bawdy graffiti in public bathrooms or making sense of the distribution of physical chain letters in what has become a culture dominated by ubiquitous computing?

In reality, the present paradigm shift has not only positively remediated the field in terms of ease of data collection and depth of artifact dispersal, but it has also created entirely new branches of study in the form of netlore. Bolter foresaw parallel developments emerging in our literary culture more than a decade ago, noting:

The printed book is no longer the only or necessarily the most important space in which we locate our texts and images. For all our communicative purposes, print is now measured over against digital technology, and the ideal of perfect communication that our culture associated with print is under constant challenge. (210)

Much like the hypertextual style of writing that Bolter argues has facilitated entirely new economic and social models of textual interaction, netlore has emerged in the last decade as a cultural force for shaping public consciousness. Netlore, which includes texts ranging from doctored images to multimodal jokes, memes, and other artifacts which are created with digital tools and disseminated on the Internet, represents an important form of "subversive play, circulating in an underground communicative universe that...parodies, mocks, and comments mordantly on 'official' channels of communication such as the mass media" (Frank 9). How influential is netlore in shaping public discourse within those cultures in which the World Wide Web has emerged as the meta-medium? Frank asserts that, "more than any other instrument for sampling public opinion we have, it tells us about what people think about what is going on in the world" (14). This is a powerful theory, of course, although Stephen King suggests that folklore artifacts such as "The Hook" (ch. 1) fundamentally exist simply to "scare the shit out of little kids after the sun goes down" (34). Whether to scare, teach, or caution—to persuade, confuse, or inform—folkloric artifacts possess an abundance of cultural currency. As the Internet thrives within contemporary American society, the study of authority in an open, autonomous, and user-centric digital environment has become essential to such institutions as the Stanford Persuasive Writing Lab. The lab's Web Credibility Project researches a variety of important questions that are directly influenced by the widespread propagation of netlore:

- What causes people to believe (or not believe) what they find on the Web?
- What strategies do users employ in evaluating the credibility of online sources?
- What contextual and design factors influence these assessments and strategies?

• How and why are credibility evaluation processes on the Web different from those made in face-to-face human interaction, or in other offline contexts?

The very nature of "authority" in relationship to the practice of making specific knowledge claims is yet another concept that is experiencing uncertainty in a period of digital dissonance.

In pre-Internet cultures, authority most commonly originated with traditional, hierarchical organizations, such as the church. In his fascinating exploration of traditional authority "That Withered Paradigm: The Web, the Expert, and the Information Hegemony," art historian and media theorist Peter Walsh proposes that there are five characteristics inherent in what he calls "the expert paradigm." These include the presence of a bounded body of knowledge, an esoteric/exoteric cultural dynamic, a rigid set of rules, a ritualistic method for member identification, and a persistent threat of instability (366-7). In primarily oral cultures, traditional authority most commonly flowed from the few to the many, issuing vertically from the clergy, for instance, to the laity. As technologies such as the printing press, the telegraph, radio, film, and television created new avenues for the dissemination of information, however, the concept of authority changed in concert with the wider diffusion of voices. Dissonance is not a new concept, of course, and the Internet's present popularity will one day represent but another marker (albeit a significant one, and possibly even a development on par with the intellectual revolutions that were facilitated by Gutenberg's printing press) on a vast communications spectrum originating with the first instances of human speech. In contemporary culture, the expert paradigm has been directly challenged by the emergence of a Web environment in which authority is often dispersed horizontally among members of dynamic communities. These groups are practicing an emerging form of knowledge production that French media theorist Pierre Lévy calls collective intelligence.

Collective intelligence is "the sum total of information held individually by the members of the group that can be accessed in response to a specific question" (Jenkins 27). In practice, collective intelligence is typified by amorphous groups whose existence is predicated on a shared informational foundation. That foundation encapsulates everything that a group needs to know in order to sustain itself and achieve its objectives. All other details outside of that foundation of shared knowledge are provided by individuals who drop in and out of the group as informational needs dictate. As new knowledge claims are brought before the group, they are rigorously tested and debated before being accepted or rejected as critically important objects.

Which changes have taken place in the broader information culture that have precipitated the emergence of collective intelligence as an alternative to the entrenched principles of the expert paradigm? Walsh notes that, as history has repeatedly illustrated since the emergence of formal languages, the evolution of communication technologies has had profound effects on the concept of authority:

We are accustomed to think that the Protestant Reformation started in 1517 when Martin Luther nailed his ninety-five theses to the door of Wittenberg's castle church. Actually, far more important to the Reformation was the fact that Luther made use of a developing new technology and printed his views.

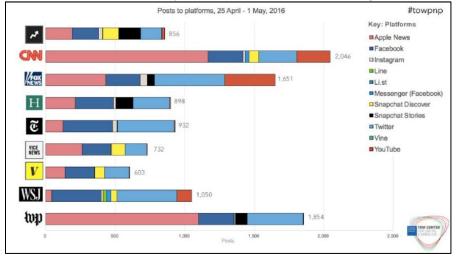
The printing press thoroughly undermined one of the key elements of the medieval church's knowledge hegemony: the control of book production and libraries. (367)

Digital dissonance is presently destabilizing some of the dominant informational structures of the twentieth century as a substantial measure of publishing authority has shifted from New York City to the West Coast and the globally networked communication platforms now facilitated by Google, Facebook, Apple, and Amazon. Major book-publishing competitors have merged (Penguin and Random House in 2013) as a matter of practical survival, and many prominent twentieth-century news organizations are turning to these digital platforms to reach diverse

audiences and utilize alternative distribution channels. To illustrate this practice, note the wide dispersal of news stories across social-media platforms from just one week in the spring of 2016:

Table 3: Diffusion of News Posts to Platforms, Tow Center for Digital Journalism





As Emily Bell notes in "Who owns the news consumer: Social media platforms or publishers?" traditionally authoritative news items now coexist in the same informational streams as usergenerated netlore. One significant outcome of this co-mingling of content is the subtle withering of authority within the news culture that dominated information production in the print era.

Additionally, and simply by virtue of its networked interface, Facebook has proven to be an integral agent in the creation and dissemination of netlore.

A variety of knowledge communities practice collective intelligence in narrative subgenres related to technohorror, and social-media platforms such as Twitter and Facebook are just a few of the prominent Web sites through which netlore is frequently disseminated. An example of how digital technologies are both sustaining horror's history while simultaneously reinterpreting it in line with contemporary concerns is evident in this GIF graphic depicting an animation of the murderous Plymouth Fury at the center of King's 1983 novel *Christine*. The graphic circulated on the Horror Central Facebook page on July 18, 2016. Though King's novel (and John Carpenter's underrated film, released in the same year) is more than three decades old, born-digital folklore illustrates the potential for re-kindling interest in the story within an appreciative, active, and diverse Facebook fan community. For those unfamiliar with either of the original versions of King's grim salute to the American automobiles of the mid-twentieth century, the simple GIF meme utilizes a popular Geico Insurance marketing slogan to lend contemporary context to a classic tale of monstrous technology run amok.

How have the products of collective intelligence emerged as catalytic analogues to the expert paradigm? In large part, the answer lies within the authorizing force of what folklorist Robert Glenn Howard calls "vernacular webs." Building on the work of anthropologist Clifford Geertz, Howard defines vernacular webs as those distinctive, participatory communities which define us as human individuals, and which frequently operate outside of formal, official, or institutional channels. Twenty-first century digital networks, Howard argues, have thrust interpretive folklore studies into a vital position in the creation of meaningful public discourse:

In the globally interconnected worlds of many individuals today, it is important that folklorists make critical moves to engage a politics of interpretation in ways that responsibly represent vernacular voices. Communication and travel technologies have increased many people's ability to actively choose what and with whom they engage in their everyday discourse. This increased agency has increased the power of vernacular authority in comparison to its role during the late print and broadcast ages because today's participatory media allow individuals to express themselves right alongside powerful institutions. (76)

These are persuasive theories of both emerging personal and collective agency that Alan Dundes, Henry Jenkins, Pierre Lévy, and James Paul Gee have been writing about for decades. As Gee notes in this short <u>video</u> on gaming, learning, and literacy, these vernacular communities (which he calls "affinity spaces") have been integral to scientific discovery and the production of knowledge for centuries. At the 3:52 mark, Gee notes:

In the eighteenth and nineteenth century, most scientists were amateurs, in the sense that they didn't have credentials, they didn't work for universities—Darwin never worked for the university. He...would take care of himself and he did his science, and people wrote letters. Instead of journal articles, they wrote letters to each other, and they did science together, and they helped each other, and they mentored each other.

Contemporary vernacular webs are the digital laboratories in which these learning and mentoring relationships are now flourishing. As Gee notes, traditional (institutional) education in the twenty-first century is in direct competition with rich, contextualized curricula that is proliferating outside of formal educational systems. He notes that learning through applied practice—through creating things and doing things—is "making some of our skill-and-drill schools look bad." The field of technohorror, like many other digital environments, is proving to be a fertile environment for connection, production, and innovation. While many of the resources listed in the table of vernacular webs below embody multiple communication features, I grouped these genres and examples based on their primary functions within the larger horror ecosystem. This table is in no way exhaustive, of course, and is meant primarily to illustrate the communication features and production aspects of some of the field's more prominent Web sites.

Table 5: Popular Vernacular Webs Covering Horror Culture

Genre	Texts	Communication Features
Podcasts	Pseudopod, Nightmare Magazine, The Last Podcast on the Left, The NoSleep Podcast, We're Alive, Well Told Tales, Suspense	audio, performance, dynamic, generative
Digital Magazines	Nightmare Magazine, Clarkesworld, Uncanny Magazine, Apex Magazine	narrative prose, poetry, graphic stories, news and interviews, some A/V components, traditional, generative
News	Horror World, Hellnotes, io9, Bloody Disgusting, Horror Asylum, Horrorfreak News,	mainstream, industry- driven, promotional
Folklore/Netlore Sites	Snopes.com, SCP Foundation, Creepypasta.com, The Moonlit Road	corrective, authoritative, subversive, generative, historical, restorative
Social-Media Sites and Community Resources	The Goreletter, Ginger Nuts of Horror, Dreadit (the Horror Reddit), The Walking Dead Wiki, Decay Mag	vernacular ethos, independent, user-driven, participatory, reactive
Film Communities	Shock Till You Drop, Doc Rotten, 101 Horror Movies,	visual, performed, dynamic, collaborative, audio, generative
Games and Gaming Communities	Five Nights at Freddy's, Dark Horror Games, Horror.com (forum)	interactive, collaborative, generative, synchronous, visual, audio
Esoterica	IndigoStars YouTube channel, <i>The</i> NightVision Experiment, Dark Detour, Glam & Gore YouTube channel	reactive, generative, interactive, synchronous, visual, audio

While much of the content located within the digital horror magazines listed above expands on a rich literary tradition dating back to the late eighteenth century, the majority of the other vernacular webs represented here assume a closer kinship with the folk productions of the recent past. They take much of their artistic and creative energy from the immediacy and spontaneity of performance. This is an important distinction, as folklorists such as Howard, Dundes, and S. E. Bird note that many folk artifacts are performed in the acts of storytelling, singing, or participating in a reenactment.

The immediacy and spontaneity of performed folklore recalls some of the significant characteristics of primary orality. In his chapter "Some psychodynamics of orality," Ong notes that oral speech is often redundant (copious), proverbial (traditional), and dynamic (energetic). Some of these same characteristics are clearly evident in the artifacts circulating within the field of technohorror. ASMR horror artists reenact scenes or reimagine entire plots from classic horror films. Web artists such as Nick DenBoer remix landmark horror narratives such as Stanley Kubrick's *The Shining* (1980) in creative, dynamic productions like 2015's *The Chickening*. In the fall of 2017, cable network TNT will air a weekly block of horror television programs hosted by the Crypt Keeper, a character whose origins stretch back to the popular EC Comics of the 1950s (Wagmeister). TNT's network president Kevin Reilly recently stated that this most recent version of *Tales from the Crypt* will likely include fan fiction, as "we are working with Wattpad and ultimately I'd like some material to come from [viewers]" (Mike). Folk artists are using such digital tools as After Effects, C4D, Wattpad, and YouTube to add contemporary dimensions to some of the horror field's most beloved artistic properties. It is important to note that these examples of folk remix culture are leveraging film and video as their preferred media to illustrate dynamic visual performance objects as opposed to focusing on printed (or even written) texts. This is indicative of a trend that some scholars, including Thomas Pettitt and Lars Ole Sauerberg, are citing as evidence of the presence of a "Gutenberg Parenthesis," or a cultural transitional period in which communication would at least partly "return to practices and ways of thinking that were central to human societies before the advent of the printing press" (Peverill-Conti and Seawell).

The intersection of netlore and technohorror seems a particularly productive space within the communications culture now emerging at the outset of the twenty-first century. While Sauerberg admits that the concept of a Gutenberg Parenthesis is controversial, he and a diverse collection of global scholars did an admirable job of explicating its features and potential outcomes in a 2009 special issue of the communications journal *ORBIS Litterarum*. In constructing a model for the concept, Sauerberg and Pettitt discuss three phases of communications theory: a period of primary orality with some intercession of writing, an era of printed prose in the Gutenberg period (spanning most of the last five centuries), and the hypertextual prose age of our present culture. If, as these scholars speculate, our culture is now situated on the far side of the Gutenberg Parenthesis, the effects of digital dissonance on human cognition might be deep and ongoing for decades to come:

In a cognitive context the mass-produced and mass-distributed book has been of the greatest significance for the way we approach the world. In the transition from the printed book to digitalized textuality the mode of cognition is being moved from a metaphorics of linearity and reflection to a-linearity and co-production of "reality." This means moving from the rationality accompanied by the printed book to an altogether different way of processing, characterized by interactivity and much faster pace. The book as privileged mode of cognition is, it seems, being marginalized and transformed. (Sauerberg 79)

As Pettitt notes, print primacy not only enclosed narratives inside of linear story structures, but the period itself was also predicated on containment within many fields of artistic production. It would have been very difficult for an artist such as DenBoer to garner more than a million views of *The Chickening* (2015) in the media climate pre-dating the emergence of the Internet, for instance. The film's brand of subversive augmentation of an acknowledged horror classic would almost certainly have met with resistance at the distribution phase, even if the tools for that style of independent film production had been widely available to amateur and emerging artists in the early 1980s.

Another important aspect of the changing communications ecosystem that Pettitt and Sauerberg elucidate is the tension inherent in the move "from a metaphorics of linearity and

reflection to a-linearity and co-production of 'reality'" (Sauerberg 79). If we substitute the term "authenticity" for "reality" in this quotation, we can now more easily discuss the former's place in our rapidly evolving production environment.

In his influential essay "The Work of Art in the Age of Mechanical Reproduction," Walter Benjamin writes that "the presence of the original is the prerequisite to the concept of authenticity." Benjamin's essay principally explores writing, photography, and film (among other art forms) in tying aesthetics and mechanical technics to the political aspects of artistic cultural participation. He explores the concepts of alienation and estrangement that can potentially arise in the processes of mechanically reproducing art, and he notes that technological "progress"—for all of its wondrous possibilities—has also proven capable of yielding an aesthetics of ruin and warfare on such a scale that mankind "can experience its own destruction as an aesthetic pleasure of the first order." It is a significant essay, both documenting the recent history of technology's profound influence on the arts while also illustrating how mechanical tools and artistic production can become indicative of much broader political currents.

There is a notable duality inherent in the reproduction of artistic works. Benjamin writes:

The authenticity of a thing is the essence of all that is transmissible from its beginning, ranging from its substantive duration to its testimony to the history which it has experienced. Since the historical testimony rests on the authenticity, the former, too, is jeopardized by reproduction when substantive duration ceases to matter. And what is really jeopardized when the historical testimony is affected is the authority of the object...that which withers in the age of mechanical reproduction is the aura of the work of art.

Yet later, in the same passage, he illustrates another crucial aspect of the phenomenon:

By making many reproductions it substitutes a plurality of copies for a unique existence. And in permitting the reproduction to meet the beholder or listener in his own particular situation, it reactivates the object reproduced.

The effects of mechanical reproduction are complex, to be sure, operating simultaneously as both destructive and cathartic in the act of reconfiguration. And yet, within a contemporary culture in

which communication is often influenced by the diffusion of a heavily visual body of folk artifacts in the form of memes, video remixes, Web hoaxes, and computer legends, the participatory benefits of creating, circulating, and engaging with these forms cannot be discounted as inconsequential.

Frank, in analyzing the heavily circulated "Tourist Guy" meme that surfaced shortly after the 9/11 attacks on New York City's World Trade Center, echoes elements of Freud's philosophical theories in asserting that creating and disseminating netlore frequently operates as a coping mechanism for dealing with grief, loss, and horror. The "Tourist Guy" meme featured a doctored image of a foreign visitor that had supposedly perished in the attacks. Weeks later, when the image was discovered to have been a viral hoax, Frank writes that there was a collective exhalation in many Internet communities that had been actively discussing the image. After it was discovered that Péter Guzli (the subject of the photograph) was alive and well, Frank writes that the artifact's widespread discussion signified that "as horrific as it [9/11] was, we had come through other horrific events. We would come through this one as well. The jokes do more than express anxiety; they grapple with it" (81). If authenticity in the new media culture is predicated at least partially on using netlore to acknowledge the absurdity of so much of what we encounter in our instantaneous global news culture, then engaging with horrific interpretations of human frailty may be among the most authentic reactions to these events that we have at our disposal.

Like the concept of authority, the notion of authenticity has been much debated in a culture undergoing a series of radical reorganizations. As the scripted programming of the twentieth century has increasingly +yielded airtime to reality television, for instance, contestants now attempt to create perfect copies of timeless songs on programs like *American Idol* and *The*

Voice. Iconic historical and literary figures now surface—fully distanced from any sense of their mythic authority—in such horror mash-ups as Abraham Lincoln: Vampire Hunter (2012) and Hansel & Gretel: Witch Hunters (2013). As noted in the introduction to this study, authors such as Jane Austin and Charles Dickens have had their classic novels inundated ex post facto with zombies and werewolves, respectively. Critics of such trends in popular culture might argue that the re-mix aesthetic that is so prevalent in various folk cultures might operate as corrosive to the notion of a sacred authenticity. But the folk practices of re-mixing and re-making landmark texts to suit alternative purposes and aims constitutes a critical form of political agency that is proliferating within both esoteric digital knowledge communities and throughout the broader culture. In her text In Search of Authenticity: The Formation of Folklore Studies, Regina Bendix writes that folklore is inextricably linked (and always has been) to politics, "where authenticity bestows a legitimating sheen, with political change linked to modernity, affirmatively in revolutions, negatively in counterrevolutions" (7). Much of folklore's cultural impact stems from its accessibility and position outside of institutional channels for, unlike "an authentic van Gogh, folklore can be endlessly replicated and imitated—any member of the 'folk' should be equipped with the skill and spirit to produce some lore" (Bendix 8). In essence, Bendix is expanding on an important claim advanced by Benjamin, who notes in the fourth subdivision of his essay that the act of modifying a work—of remixing it—reverses the total function of art, instead making that changed object a potentially potent artifact of politics. Alternative meanings, interpretations, and purposes emerge from these works when their authenticity is undermined by means of mechanical reproduction.

The cultural perception of authority and authenticity is in flux in the present digital paradigm shift. This is nothing new, of course. As Walsh notes, changes in communication

technologies have long shaped these concepts. The notion that a paradigm shift might signal some form of totalizing culture death, however, is faulty. Cultures change with time, as do the people and institutions that comprise them. Although the net effects that the practices of collective intelligence and the proliferation of netlore will have on the production of knowledge, the dissemination of information, and the future of communication are yet unknown, theorists such as Jenkins have noted the potential for a new brand of authentic and authoritative agency surfacing within networked cultures:

Some might well argue that circulating these images [netlore] is a poor substitute for more traditional forms of political activism. I wouldn't totally disagree, especially in those situations where people are simply hitting the send key and thoughtlessly forwarding the images to everyone they know. Yet, I would also suggest that crystallizing one's political perspectives into a photomontage that is intended for broader circulation is no less an act of citizenship than writing a letter to the editor of a local newspaper that may or may not actually print it. (222)

Jenkins positions memes as rhetorical tools roughly analogous with the political brochures, buttons, and campaign postcards of the print era. Situated in that light, netlore largely fulfills Frank's claim that it offers some of the keenest insights into how our culture feels about important collective issues in a timely, immediate fashion.

In an effort to examine some of the prominent scholarly anxieties surrounding folklore studies in what is rapidly becoming a largely digital culture, I have spent much of the first portion of this chapter positioning the field as an enduring and vital force in the perpetuation of cultural discourse within various social groups. While much of the theory and some of the examples have necessarily fallen a bit outside of the strict purview of technohorror, we return to that concept in the next section of this chapter in our analysis of cultivating digital materiality.

Cultivating Digital Materiality

Folklore's largely immaterial heritage sometimes makes it difficult to ascertain important details concerning the origins and veracity of certain artifacts. The urban legend, for instance, is

often filtered through a variety of senders and receivers, with the narrative undergoing various changes along the way. Folklorist Jan Harold Brunvand has labeled this characteristic the "friend-of-a-friend" (FOAF) transmission filter, and the adaptable nature of the urban legend is simultaneously one of its more charming and frustrating features.

There is, however, a practice at the core of folklore studies that does yield resonant experiences in the material world that extend beyond the simple verbal transmission of stories and legends. Linda Dégh and Andrew Vázsonyi appropriated the term ostension in their 1983 essay "Does the Word 'Dog' Bite? Ostensive Action: A Means of Legend-Telling" to explain the phenomenon in which physical actions or group activities operate—in and of themselves—as powerful forms of folk communication. Expanding on Umberto Eco's work in embodied semiotics, Dégh and Vázsonyi argue that these actions, including activities ranging from participating in rituals and reciting incantations to reenacting history and visiting physical landmarks, can come to constitute important, resonant folk narratives in their own right. Legend tripping, for instance, in which people travel together to a physical place to narrate its associated legends, is a particularly keen example of ostension (Bird 191). Here in Jacksonville, Florida, adolescents frequently visit the slowly decaying remains of Annie Lytle Elementary School (also known as Public School #4, PS4, or "The Devil's School"). They do so in order to prove devotion to one another, to potentially "surprise" love interests into a close embrace, or simply to experience the exhilaration of exploring forbidden places. In a decade of teaching folklore studies at Florida State College at Jacksonville, no physical locale has inspired so many tales of fear, fright, and anxiety among my students as has the Annie Lytle Elementary School. While few profess to actually encountering anything explicitly supernatural at PS4, a common

sentiment among these students is that the trip itself became a formative folk narrative, binding them to both a place and a peer group in meaningful and memorable ways.

While the school's haunted legacy persists widely in digital contexts (Instagram hosts numerous albums devoted to PS4), the dichotomy inherent between the material/fixed nature of the site and the digital/ethereal nature of the Internet poses a compelling question: How will ostension (and all of its various forms, associated practices, and emotional directives) endure as an important cultural practice in a society that is increasingly spending more time in front of digital screens and less in the haunted buildings and spooky cemeteries that so inspired the folk narratives of the previous century?

Just as some folk traditions have successfully transitioned into creative practices yielding netlore, ostension has, in a fashion, effectively migrated into digital spaces. Ostension's characteristics include shared, adaptable narratives, collective knowledge-sharing practices, and an outcome usually predicated on some element of materiality (a physical visit, performed activity, or enacted ritual, for instance) beyond the isolated storytelling act. In just the last few years, a number of true-crime documentaries with horrific storylines have emerged across a variety of media, garnering an impressive volume of popular attention while compelling thousands of Internet users to convene in digital commons to share information toward a common, material goal—enacting real change in the American justice system.

The first season of Sarah Koenig's *Serial* podcast, an award-winning production of the popular *This American Life* public radio show, explores the American legal system in its reporting on the murder trial of Adnan Syed, a young man accused in the murder of his exgirlfriend, Hae Min Lee. The ten episodes in *Serial's* first season have been hugely popular, garnering millions of downloads and becoming the fastest podcast to ever reach five million

downloads on iTunes (Opam). Since its inception, amateur sleuths have converged online to trade theories with such hardened professionals as Washington, D.C., attorney Susan Simpson, whose dogged outside investigations into the case helped to compel Judge Martin P. Welch to grant Syed a new trial (Koenig). This outcome (one Syed had spent years pushing for, though to no avail prior to the podcast's explosion in popularity) was directly influenced by the thousands of users that met on sites such as Reddit.com, where they actively debated the case before communicating their desire to see a new trial en masse. Groups of strangers met online before gathering in person to discuss the case (Mancuso). Like young people visiting the Annie Lytle Elementary School for a glimpse into the macabre, thousands of Internet users from all walks of life pored over digital court documents related to Syed's first trial. Similar and well-documented cultural phenomena surrounding the Netflix documentary series Making a Murderer have recently yielded material results in the form of a new trial for a principle subject at the heart of that narrative as well. These "true-crime documentaries have emerged as a kind of secondary appeals system" with "an afterlife online, where amateur detectives reinvestigate both the crimes and the documentaries themselves" (Nussbaum). As Carl Lindahl notes, practicing ostension much like the experience of engaging more generally with horror narratives as a mechanism for overcoming personal fears—often yields moments of experiential catharsis:

Such legend quests constitute a sort of ostensive play, an improvised drama in which the players, visiting the site of a haunting or the scene of a crime, take on, by turns, the roles of legend villains and victims as they both recreate the storied events and simultaneously expand the tale by adding their experience. (165)

In the examples of *Serial* and *Making a Murderer*, active, engaged amateur investigators are working in digital knowledge communities to exert a collective influence that has been realized in material, real-world outcomes. By marshalling their considerable authority through ostensive

immersion in the cases, these communities elevate both the documentaries and the court cases to an important position of cultural discourse that neither could have likely generated on its own.

Digital ostension exists in a variety of forms. As Roman Ohlendorf documents in "Playing with the Legend: Ostension and Extra-Textual Production in *Minecraft*," gamers in *Minecraft's* sprawling game environment have created a rich and dynamic origin story for an antagonist called Herobrine, a mysterious villain who, according to myriad Internet legends, acts as a trickster figure by harassing players, destroying environments, and leading malicious creatures into the digital worlds of innocent, unprovoked gamers (34). As the *Minecraft* Wiki notes, the character has never actually been featured in any official version of the popular game, though his effects on the community can be felt in various forms of media throughout the Internet.

Herobrine first surfaced on the /v/ forum in the 4chan imageboard forum when an anonymous account detailed the character's sudden emergence (from the digital fog, no less) and subsequent haunting of the user's *Minecraft* environment. The legend, which first materialized as a creepypasta (a short, unsettling digital legend) outside of the explicit game environment, reads like compelling proof of the presence of a ghost in the machine:

I received an email from another forum user. He claimed the mods can read the forum user messages, so we were safer using email. The emailer claimed that he had seen the mystery player too, and had a small 'directory' of other users who had seen him as well. Their worlds were littered with obviously man-made features as well, and described their mystery player to have no pupils.

About a month passed until I heard from my informant again. Some of the people who had encountered the mystery man had looked into the name Herobrine and found that name to be frequently used by a swedish [sic] gamer. After some further information gathering, it was revealed to be the brother of Notch, the game's developer. I personally emailed Notch, and asked him if he had a brother. It took him a while, but he emailed me back a very short message.

'I did, but he is no longer with us.'

-Notch

I haven't seen the mystery man since our first encounter, and I haven't noticed any changes to the world other than my own. I was able to press 'print screen' when I first saw him. Here's the only evidence I have of his existence. (Ohlendorf 35)



Figure 3: Herobrine's first appearance, n.d., Minecraft Fanon Wiki

The elusive figure is just visible at the base of the hill, on the left edge of the upper plateau. The 4chan post was soon discussed by Brent Copeland on his popular *Minecraft* YouTube channel; since Copeland first discussed the character's origin story in the summer of 2014, stories of Herobrine (supposedly the ghostly manifestation of *Minecraft* creator Markus Persson's deceased brother) have become common in forums, chatrooms, videos, and throughout social media platforms. Fans have written novels about Herobrine. The character appears in original digital artwork, traditional illustrations and paintings, graphic novels, and Internet comics; there are hundreds of pages referencing the figure on the World Wide Web. Herobrine, with all of his associated mischief and mystery, seems symbolic of the ineffable complexity of hypernetworked computing environments—and the peculiar people existing on the other side of the avatar. Similar to more traditional ostensive acts, where participation is often viewed as navigating communally binding rites of passage, the narrative also operates as a shibboleth:

...Herobrine has become an effectual sign that can be decoded by those "in-the-know". Thereby it enables a sense of belonging through common knowledge, that is often a characteristic of folklore. There is a vast amount of additional para-texts through which the legend gets continuously reshaped and reiterated. These forms are common also in general folklore as they fall into the more traditional categories of remediating legends in non-verbal but instead written forms such as fanfiction or discussions in forums and social networks (including Minecraft's own *Minebook*). (Ohlendorf 38)

While Herobrine is a particularly prominent example of digital ostension, characters from other video games (including a few from the afore-mentioned *Five Nights at Freddy's*) have similarly surfaced outside the boundaries of their game environments. My daughter, for instance, was recently captivated by a creepy FNAF costume on display at our local Spirit Halloween pop-up store.

It should come as no surprise that the Herobrine legend first surfaced in the form of a creepypasta, for the most shocking example of cultivating digital materiality in recent memory involves the popular series of legends surrounding Slender Man, a fictional digital bogey figure who has been conceived, sustained, and continually renewed through his exploits in a series of digital texts located in some of the darker corners of the World Wide Web. Creepypasta.com, creepypasta.org, and creepypasta.wikia.com are among the more prominent Web communities publishing stories about Slender Man. Creepypastas are short, disquieting digital legends that are frequently shared via chain e-mails and in Internet forums. The name itself indicates a subgenre of what 4chan users began calling "copypastas" roughly a decade ago. Copypastas included digital hoaxes and urban legends, and the "copy-and-paste" ethos of the genre inspires its moniker. Copypastas often carried warnings of dire consequences to the recipient if the messages weren't forwarded along, and these artifacts represent some of the first examples of the viral Web text (Roy).

There are dozens of popular storylines in the creepypasta community; visitors to creepypasta.com, for instance, can search for legends by exploring such categories as "Beings & Entities," "Locations & Sites," "Murders & Deaths," and "Rites & Rituals." Some of the more popular legends concern a character called Jeff the Killer, who supposedly resides in the closets of young people, admonishing them for staying up past their bedtimes. The first digital image of Jeff the Killer is (at least according to the netlore of many digital horror communities) purportedly haunted by Katy Robinson, a young woman who committed suicide after cyberbullies on 4chan's /b/ imageboard harassed her about her physical appearance (Newitz).

Another popular creepypasta features speculation on the so-called Lavender Town Syndrome; this legend includes a series of stories about a rash of suicides among young Japanese children following the release of the *Pokémon Red and Green* game in the late 1990s. According to folklore, the designers of the game created music containing "harmful frequencies" of some sort that would drive children to suicide when they visited <u>Lavender Town</u> (Hernandez). The music *is* peculiar, to be sure, and the legend is resilient, circulating more frequently as the calendar turns toward Halloween. While these folk artifacts have been dispersed, remixed, and remediated in various communities throughout the Internet, no single character has generated as much widespread cultural discussion as has the Slender Man, a creation of pure technohorror who stands at the center of one of the more sensational American crimes of the last few years.

In the early afternoon hours of May 31, 2014, twelve-year-old Payton Leutner was stabbed nineteen times in the woods bordering a neighborhood park in Waukesha, Wisconsin, by Morgan Geyser and Anissa Weier. The trio had just concluded a birthday slumber party, sharing a bed together before an ominous game of hide-and-seek that would nearly prove fatal for Leutner. Weier and Geyser, after months of planning, lured their friend into the woods near

Geyser's home. Once they found a secluded area, Leutner was viciously attacked by her classmates. Trauma physician Dr. John Keleman notes that one wound missed her heart by only a millimeter (Effron and Robinson). Authorities now prosecuting the case agree: Geyser and Weier had every intention of murdering their classmate on that spring afternoon.

What could possibly compel two young girls to spend months discussing and planning the murder of a close friend? How does a child go from writing, reading, and trading scary stories in Internet forums to stealing a kitchen knife and actually using it on another living creature?

The answer lies, at least partially, in a narrative staple of the horror genre: human sacrifice. Bloody narratives of punishment and ritual appeasement figure prominently in the genre's heritage. From Shirley Jackson's horrific short story "The Lottery" to Bryan Smith's shocking thriller *Depraved*, these stories depict human barbarism in a misguided effort to please dark entities. In the Waukesha assault case, Geyser and Weier attempted to murder their classmate as an offering to the Slender Man. In the *New York Magazine* article "Slender Man is Watching," Lisa Miller writes:

Over the past year, the attack in Waukesha has come to be known as "the Slender Man stabbing." This is because, during their interviews with police that Saturday, Anissa Weier and Morgan Geyser, who at the time were both 12 years old, said they were trying to kill Payton Leutner to please a mythical internet horror creature named Slender Man—a tall, thin, faceless man in a suit who has tentacles growing out of his back and preys on children. The idea, Anissa carefully explained to the detective, as if giving a book report, was to become proxies, or puppets, of Slender Man through murder—an initiation ritual requiring a blood sacrifice. Anissa and Morgan told officers that, according to this logic, Bella's death would earn them Slender's protection. Afterward, they said, they would go to live with him in a mansion in the forest, morphing somehow into minimonsters, not unlike the way humans who've been bitten by vampires are said to become vampires themselves.

This peculiar case from a tiny Milwaukee suburb featured heavily in the international media. Sadly, the global coverage was focused less on Leutner's miraculous survival and more closely on the catalyst for the attack: Slender man's "massive, cult-like following" (Effron and Robinson). Similar to *Serial* and *Making a Murderer* before it, the Slender Man stabbing is the subject of a forthcoming documentary by Irene Taylor Brodsky. As an urban legend for the digital era, Slender Man's allure is difficult to reconcile; Kaitlyn Tiffany, in a piece on Brodsky's documentary *Beware the Slenderman* (2016), writes:

"If you don't know who Slenderman is, you're living under a rock," remarks one of the dozens of teens appearing in YouTube videos that are excerpted in *Beware the Slenderman*. It's the first hint that the documentary is going to try to do the impossible: explain the internet, and its seedy underbelly, to people who... live under rocks. In other words: primarily offline.

The uncanny disconnect between what feels culturally ubiquitous on the internet and what is truly something everyone in the physical world knows about is central to the argument that many of the documentary's speakers make in one way or another: the internet has a unique ability to blur lines between reality and fantasy in the minds of children, even after the age at which those lines should be crystal clear. It's a fascinating claim, if impossible to prove.

In the case of Geyser and Weier, both being tried as adults, their inability to distinguish between fiction and reality compelled them to murder in the service of a digital tulpa in the form of the Slender Man. There is a terrifying moment in Sir Arthur Conan Doyle's short horror story "Playing With Fire" when a small group conjures something similarly sinister through their participation in a séance:

"But thoughts are things, my friend. When you imagine a thing you make a thing. You did not know it, *hein*? But I can see your unicorns because it is not only with my eye that I can see." [Monsieur Paul Le Duc, medium]

"Do you mean to say that I create a thing which has never existed by merely thinking of it?" [Harvey Deacon, a painter working on an image of a unicorn]

"But certainly. It is the fact which lies under all other facts. That is why an evil thought is also a danger."

Geyser and Weier's devotion to Slender Man exemplifies Le Duc's apprehensions on the terrible potential that can exist in ushering fictional, immaterial horrors into our lived experience.

The attack on Leutner seems emblematic of technohorror across a variety of thresholds. As noted throughout the first three chapters of this study, horror tales exist in a state of almost continuous generic reinvention and narrative remediation. The Waukesha stabbing case takes, as its core, a motive predicated on appeasing a digital bogey whose modus operandi is stealing children away to a mysterious mansion hidden deep in the woods. It should come as no surprise, then, that a generation deeply connected to digital writing and the Internet has created its own unique extension of the bogey legend. This timeless tale has often been viewed as an instructive story, designed like most legends with an important behavioral moral at its core; the bogey legend simply asks children to mind their parents or face the consequences. In her illuminating text No Go the Bogeyman: Scaring, Lulling, and Making Mock, Marina Warner notes that "Bluebeards, ogres and child-snatchers are close cousins to other wandering and hungry spirits that nurses—and mothers and fathers—have invoked to scare, cajole, or bully children into obedience and quiet" (31). Warner notes that bogey figures, from the German Erlking to Russia's Baba Yaga, Scotland's Lammikin, Judaism's Lilith, and the English legend of the Sandman, are nearly universal throughout world folklore, as fear operates as "the child's bedfellow" (24).

The grim details of the Slender Man stabbing also indicate that Leutner and her family had no sense of the imminent attack. Like the robotic pod people of Don Siegel's *Invasion of the Bodysnatchers*, Geyser and Weier methodically tricked a trusting confidante into following them into the woods before revealing themselves and acting on their murderous intentions. In the space of a few short hours, Geyser and Weier ferried Leutner on a horrific journey from the mundanity of a childhood game into the surprise and shock of a fight for her very survival. But

Slender Man's strongest connection to the province of technohorror is his status as a monster summoned not from the tapestry of regional legend, but instead from humble digital origins as a product of a Photoshop contest hosted on an obscure Internet forum. In essence, the character *is* a product of pure technohorror.

Folklore as Meaningful Communication in Digital Contexts

Cultural change can be difficult to navigate, particularly when those changes are both rapid and pervasive. In his informative text *The Economics of Attention: Style and Substance in the Age of Information*, Richard Lanham writes:

At the same time, the world of real places and the stuff in them seems to be evaporating before our stuff-clouded eyes.... Actual physical location threatens to evaporate everywhere we look. Information, we are everywhere taught, has annihilated distance... For what actually matters, physicality doesn't matter anymore.(2)

The question of "mattering," as Frank notes, has been a persistent concern for folklorists in the era of the Internet. Postman writes that changes "in the symbolic environment are like changes in the natural environment; they are both gradual and additive at first, and then, all at once, a critical mass is achieved" (27). American culture now stands in the midst of that critical acceleration. And yet, as Jenkins, Dundes, Gee, Howard, and Frank capably illustrate, authority isn't necessarily dissipating in the emerging information culture—it is merely changing, and increased individual political agency might be just one of many positive outcomes resulting from these changes. Authenticity isn't disappearing, but its definition is changing as powerful tools provide artists with the opportunity to reconfigure classic works for new, digitally engaged audiences. Folklore and ostension (so vital to the sustenance and vitality of the horror tradition) are *not* fated to wither into extinction, and the wide distribution of netlore illustrates the growing power that artists, activists, and consumers now wield in shaping and influencing their

vernacular communities. In summation, folklore, a vital wellspring of inspiration and interest in horror, is flourishing in the paradigm shift now occurring at the outset of the twenty-first century. With a better grasp on the defining characteristics of technohorror, the subgenre's impressive diffusion across a variety of textual-production fields, and the vitality of netlore and other digital folk treatments of horror, we now turn our attention in the next two chapters to the critical examination of some of the texts that best articulate our fears on *how* technology is reconfiguring our understanding of what it means to be human. We can achieve this by exploring the ways in which artists are using narrative texts to explore how technology is altering our understanding of the human body and mind.

TRANSCENDENCE IN TECHNOHORROR: DIGITAL DISSONANCE AND THE DENATURED HUMAN

The seventh episode in the inaugural season of HBO's epic fantasy series *Game of Thrones* opens with a graphic sequence featuring villain Tywin Lannister (Charles Dance) dressing out an enormous stag inside his tent on the frontlines of a battle encampment. As Lannister saws at the flesh of the great beast, nonchalantly dropping its innards into a pail with a stomach-churning slop, he lectures his son Jaime (Nikolaj Coster-Waldau) on the tenuous nature of humanity's place in the world and the legacy that remains when the flesh has been returned to the Earth:

Your mother's dead. Before long, I'll be dead, and you...and your brother...and your sister and all of her children—all of us dead, all of us rotting in the ground. It's the family name that lives on. It's *all* that lives on. Not your personal glory, not your honor...but family. You understand? (Benioff and Weiss)

Lannister's bleak philosophy succinctly summarizes an enduring anxiety situated at the core of human obsession—the nature of human finitude.

Apprehensions concerning man's fragility and finitude stand at the heart of narratives dealing with the failure of the physical form. Project Itoh's 2008 dystopic thriller *Harmony*, Wally Pfister's 2014 film *Transcendence*, and John Scalzi's 2014 novel *Lock In: A Novel of the Near Future* are just a few of the prominent recent texts examining the perceptual complexity inherent in how we think about our physical bodies. Is the body a receptacle for the ineffable soul, a material reflection of divinity, the foundational source for personal identity, or nothing more than meat—a collection of cells that exists for a finite period of time before breaking down and rotting in the dirt? That final postulate, by the way, seems very much analogous to the texts and attitudes that informed the technohorror of the previous century. Whatever our current cultural understanding of the body may be, the fact remains that these are timeless, difficult

questions that, by the very nature of their wide-ranging disparities, create fertile territory for exploration through the many lenses of technohorror.

In his important essay "The Question Concerning Technology," philosopher Martin Heidegger examines the complicated connections between man, technology, and the natural world. The essay, whose critical approach relies heavily on etymology, repositions the German term *gestell*, which is identified as "some kind of apparatus, e.g., a bookrack," to describe the philosophical presence of enframing (325). Enframing characterizes Heidegger's conception of how man orients himself to the natural world's features and resources and also to the essence of technology.

Heidegger describes technology not purely as a system of tools and techniques but instead as an ever-present abstraction that is useful for revealing what it means to be a human being. Enframing is the method by which man considers himself or herself within the scheme of the natural world; technology (which Heidegger argues is neither anthropological nor purely utilitarian in its aims) is the dominant force through which man exerts his will over nature. Paradoxically, however, technology simultaneously exerts its will over man by captivating our attention and holding us accountable to its utilitarian whims. It is by acknowledging and questioning the enframing apparatus that man is truly able to reveal (Heidegger calls this the "unconcealment" of being) his or her orientation to the natural world. Heidegger contends that recognizing enframing as a deeply entrenched philosophical system that at all times undergirds humanity's relationship with technology provides the autonomous thinker with a set of critical choices about how he or she resolves the complex connections between humanity, our tools and systems of ordering, and the exhaustion of natural resources. He ultimately concludes that an

important critical approach to resolving this complexity exists in the creative powers of the work of art.

Heidegger introduces the concept of the "standing-reserve" (which is not the essence of a thing, but instead a measure of a thing's utility) to define natural resources, and his argument stresses the duality inherent in how technology operates in revealing the essence of humanity. Man utilizes technology as a means of harvesting the natural world's resources; simultaneously, because of his orientation to the natural world as described by enframing, man is also potentially at risk of becoming fodder—the human-resources version of the standing-reserve, so to speak—for those same technological processes that can prove so destructive to the natural world. Heidegger writes:

Enframing is the gathering together which belongs to that setting-upon which challenges man and puts him in position to reveal the actual, in the mode of ordering, as standing-reserve. As the one who is challenged forth in this way, man stands within the essential realm of enframing. He can never take up a relationship to it only subsequently. Thus the question as to how we are to arrive at a relationship to the essence of technology, asked in this way, always comes too late. But never too late comes the question as to whether we actually experience ourselves as the ones whose activities everywhere, public and private, are challenged forth by enframing. Above all, never too late comes the question as to whether and how we actually admit ourselves into that wherein enframing itself essentially unfolds. (329)

In his characteristically challenging prose style, Heidegger notes that humanity is already indelibly situated *within* the framework of technology's essence, which is its will to exert power and control over both humanity and the natural world. We can't question, therefore, how we will behave as a species when we arrive at such a proposition, for Heidegger argues that the history of both the physical and natural sciences reveals that the apparatus of enframing is axiomatic to our present circumstances. We can, however, question how our behaviors and philosophies are

revealed by our individual and collective orientations toward technology's essence. Therein lies a measure of control for the autonomous thinker.

Heidegger believes that enframing (and humanity's widespread ignorance of its presence) creates numerous potential problems for our species, including the capacity for inflating and miscalculating our sense of control over nature. The spread of such hubris could, in time, cloud our ability to recognize and understand the critical truths of both our individual human nature and those of the collective natural world.

"The Question Concerning Technology" presents a potential solution, however, to such dire consequences in the form of the work of art. Heidegger positions the work of art and its "saving power" as capable of providing the autonomous thinker with a viable path toward greater understanding of the connections between humans and our environment:

So long as we represent technology as an instrument, we remain transfixed in the will to master it. We press on past the essence of technology.

When, however, we ask how the instrumental unfolds essentially as a kind of causality, then we experience this essential unfolding as the destining of revealing.

When we consider, finally, that the essential unfolding of the essence of technology propriates in the granting that needs and uses man so that he may share in revealing, then the following becomes clear:

The essence of technology is in a lofty sense ambiguous. Such ambiguity points to the mystery of all revealing, i.e., of truth. (337-8)

In his conclusion, Heidegger notes that the Greek concept of *poiēsis*, a term which stands at the generative heart of the fine arts and forms the foundation for our understanding of poetics, is also integral in "the bringing forth of the true" (339). "The Question Concerning Technology" remains a remarkable essay for its final positioning of artistic engagement as a vital practice for

navigating the seemingly inexorable forward march of technology's essence and its many influences on humanity and the world. Heidegger writes:

Because the essence of technology is nothing technological, essential reflection upon technology and decisive confrontation with it must happen in a realm that is, on the one hand, akin to the essence of technology and, on the other, fundamentally different from it.

Such a realm is art. (340)

Art creates the intellectual conduit for the "essential reflection" on technology's influences on nature and humanity. An important etymological component of the term "nature" is the Latin *nasci*, meaning "to be born" (Louv 8). Thus, the human body is inextricably linked to our understanding of nature. The complex dichotomies that emerge in our engagement with philosophical questions concerning the born/made, natural/artificial, and finite/infinite cannot, therefore, be undervalued as critical catalysts for the production of technohorror. As technology's essence (which seems at all times to be predicated on the social and economic dictates of *stronger*, *faster*, and *smaller*) informs our various relationships to the natural world, it deeply influences human cognition, language usage, textual production, and our very concepts of the body itself. As Scalzi, Itoh, and Pfister illustrate in their art, the denatured self and the degeneration of the physical body are two significant areas of contest emerging in the horrific storytelling of the early twenty-first century.

The label "body horror" first began circulating widely in critical horror studies in the early 1980s. In the winter of 1986, the University of Glasgow film journal *Screen* (27.1) thoroughly explored the subject in a special issue, critiquing the myriad ways in which the use of sound, editing, narrative, and special effects coalesced in a series of landmark visual texts that explored, in visceral fashion, the degeneration (and dissection, explosion, and dissolution) of the human body. Films such as William Friedkin's *The Exorcist* (1973), Ridley Scott's *Alien* (1979),

and David Cronenberg's Scanners (1981) are presented as particularly aggressive texts exploring man's macabre fascination with the body's capacity for breaking down and falling apart. In his keen essay from that study "Horrality—the Textuality of Contemporary Horror Films," Philip Brophy writes that horrality is a hybrid term, encompassing "horror, textuality, morality, and hilarity" (3). It may seem like a stretch for a single work of art to encompass all of those qualities proficiently, yet many of these tales of body horror do just that. They convey the horror inherent in the loss of function and the diminished sense of identity as the body breaks down; they use powerful artistic tools such as sound and special effects to craft unique texts that satisfy Heidegger's theories on how art should critique technology's essence; they engage with complex issues of morality—of humanity's seemingly inevitable drive to merge man with machine in the pursuit of longevity and enhancement; and, finally, they violate boundaries of taste in ways that coax us to laugh at such absurd manipulations of the human form at the very same time that we are gravely repulsed by them. In commenting on our attraction to works of body horror, Brophy writes that the "contemporary Horror film tends to play not so much on the broad fear of Death, but more precisely on the fear of one's own body, of how one controls and relates to it" (8).

Control is a critical concept in the discussion of how we contest the human body in works of technohorror. In his notable 1966 work *The Order of Things: An Archeology of the Human Sciences*, Michel Foucault explores the origins of the human sciences, examining the various epistemological permutations of language, economics, and nature through time and across cultures. In an important subsection entitled "The Analytic of Finitude," he explores the philosophical characteristics of humanity's limits and the implications for our understanding of those boundaries:

Man's finitude is heralded—and imperiously so—in the positivity of knowledge; we know that man is finite, as we know the anatomy of the brain, the mechanics

of production costs, or the system of IndoEuropean conjugation; or rather, like a watermark running through all these solid, positive, and full forms, we perceive the finitude and limits they impose, we sense, as though on their blank reverse sides, all that they make impossible.

But this primary discovery of finitude is really an unstable one; nothing allows it to contemplate itself; and would it not be possible to suppose that it also promises that very infinity it refuses, according to the system of actuality? The evolution of the species has perhaps not reached its culmination; forms of production and labour are still being modified, and perhaps one day man will no longer find the principle of his alienation in his labour, or the constant reminder of his limitations in his needs; nor is there any proof that he will not discover symbolic systems sufficiently pure to dissolve the ancient opacity of historical languages. (342)

It is that notion of progress, and the speculation on unfinished evolutionary functions, cultural modifications in our working lives, and translational improvements in our understanding of language, that many works of technohorror explore through their depictions of the degradation of the human body. These stories, largely situated in the emotionally uncomfortable subgenres of body horror, science horror, and the dystopic narrative, commonly feature depictions of humanity overstepping natural boundaries in the augmentation, enhancement, and extension of the human form. Generally speaking, these narratives are commenting at their core on the increasingly important topics of posthumanism and transhumanism.

Posthumanism: Speculating Beyond the Human Individual

The term "posthumanism" characterizes the various ways in which humans alter, improve, rebuild, and extend the body through the integration of technology. Formal scrutiny of the subject dates back to the late 1980s, although the field takes as its foundation the exploration of cybernetics, robotics (and particularly artificial intelligence), biology, and literature dating to the early twentieth century. While debating the implications of posthumanism was largely speculative in the field's formative years, its impact on our lived experience grows increasingly apparent in contemporary culture. Fertility science, body modification, human-computer

interaction (HCI), and networked intelligence are but a few areas in which posthumanist concerns—ethical, material, and metaphysical—are increasingly entering into public discourse. These larger discussions represent critical developments for humanity, for much is at stake when our species is called upon to mediate the diminishing boundaries between the human (natural/born) and the posthuman (artificial/made).

To make sense of how posthumanism is impacting our species and the stories we tell, it's useful to reflect upon similar periods of technological apprehension in our recent history; consider, for example, the twentieth century emergence of automation. In his 1964 text *Understanding Media: The Extensions of Man*, Marshall McLuhan expounds on the existential angst surrounding the transition from the mechanical to the electric age. In doing so, he offers at least partial justification for Foucault's speculations on the nature of progress, which would arrive two years later in *The Order of Things*:

Centuries of specialist stress in pedagogy and in the arrangement of data now end with the instantaneous retrieval of information made possible by electricity. Automation is information and it not only ends jobs in the world of work, it ends subjects in the world of learning. It does not end the world of learning. The future of work consists of earning a living in the automation age. This is a familiar pattern in electric technology in general. It ends the old dichotomies between culture and technology, between art and commerce, and between work and leisure. (420)

McLuhan argues that automation acts not as a mechanism for fragmenting culture (by marginalizing workers or diminishing their cultural utility), but operates instead as a fresh conceptual basis for thinking about life. These paradigm shifts occur with regularity throughout human history, and each time they make lasting impacts on how we learn, grow, live, and behave. The implementation of writing, reading, and printing technologies, for instance, created a stark distinction between the "roles of knowledge and the roles of action" (McLuhan 430). The telegraph solved the communication dilemmas of distance and speed before telephony took it a

step further and made synchronous conversation ubiquitous. From the construction of our railroads and interstate freeways to the development of an open Internet, our modern history is marked by paradigm shifts that have, on the whole, improved human life. And yet, perhaps none of these periods has had as direct a material impact on life—and how we may live it in the twenty-first century—as has posthumanism and the medical and scientific developments of the last five decades.

Ethical concerns surrounding posthumanism inspire some of the same angst that workers felt about automation at the outset of the Industrial Revolution. It is comfortable to privilege the known over the unknown, a circumstance rhetoricians call provincialism. On the subject of humanity and its unique nature, for instance, bioconservative Leon Kass writes:

Most of the given bestowals of nature have their given species-specified *natures*: they are each and all of a given *sort*. Cockroaches and humans are equally bestowed but differently natured. To turn a man into a cockroach—as we don't need Kafka to show us—would be dehumanizing. To try to turn a man into more than a man might be so as well. We need more than generalized appreciation for nature's gifts. We need a particular regard and respect for the special gift that is our own given nature... (20)

Kass fears that humanity might be degrading itself in an attempt to eschew our natural finitude. And yet, a careful public reconciliation of that very subject—and its variety of attendant ethical, legal, and moral concerns—is perfectly reasonable given our current place in history, as America's first human clinical trials to focus solely on aging are now underway. University of Illinois at Chicago researcher Jay Olshansky is among a group of doctors studying the drug metformin, which has shown promise in both slowing the aging process in mice and extending their functional lifespan. In commenting on the potential for drastically expanding the human lifespan, Olshansky is unequivocal in his enthusiasm:

To take the human lifespan farther—to stretch it out over 100 years and beyond—will require a shift in thinking that treats aging not as a natural process, but as a disease, to be targeted with a drug (or some other intervention).

"I am optimistic that it's not only possible, we can do it," Olshansky said. "And we should aggressively be pursuing it." (Lunau)

Olshansky's research indicates that, at least at the exploratory level, there exists a public will toward stressing the limits of human longevity, illustrating a very real necessity to begin earnest public discussions about our national and international attitudes toward extending life in the twenty-first century. As we will discuss more closely later in this chapter, some narrative postulates that seemed speculative and science fictional in the twentieth century are now emerging as both plausible and achievable scientific endeavors in the first years of the new millennium.

McLuhan's theories on automation provide a useful correlation for resolving the dilemma of mechanization, for just as automation revolutionized the modern ecology of work, posthumanism offers the potential for a similar transformation of the body. As we have noted throughout this project, technology's social and cultural effects are often gradual and additive; the social effects of a given technology—such as those spawned by the introduction of the television at the tail end of the era of radio—radiate throughout a culture until attaining critical momentum. This momentum can activate a social paradigm shift that alters the ways in which we live. Important cultural systems—including learning, communication, and governance—change as their boundaries are stressed by the introduction of these new technologies.

The application of many of these technologies, such as genetic modification and in vitro fertilization, is governed by an internationally diverse set of guidelines whose empirical proofs are predicated on the notion that "certain groups in fact have different modes of thought, standards of reasoning, or the like" (Swoyer). This is the foundational theory of descriptive

relativism, which holds that the ability to scrutinize the empirical proofs held between two (or more) groups can assist theorists in discerning the rightness or wrongness of conduct. As Chris Swoyer writes in the *Stanford Encyclopedia of Philosophy*, some of these examinations ultimately yield a conclusion that "there is no ultimate fact of the matter as to which epistemic principles or ethical principles are correct." For instance, since the conclusion of the mapping of the human genome in 2003, the international community has addressed questions of human genetic modification in a variety of disparate fashions. As Dartmouth ethicist Ronald Green notes, the United States remains largely unregulated in its federal governance of the field; Britain, on the other hand, has gone so far as to create the Human Fertilization and Embryology Authority (HFEA) to oversee the application of preimplantation genetic diagnosis (PGD) testing. Britain is, for all intents and purposes, defining the boundaries by which human "perfection" (in the form of genetic selection) might someday become attainable within its culture (Green). Through opening its doors to the practice by sanctioning governance, Britain is affirming the powerful positive potential that posthumanist technology can bring to bear on humanity.

Descriptive relativism instills the apparatus of public discourse with the philosophical machinery to mediate these controversial topics, and is therefore a useful lens for examining how these changes might unfold. As McLuhan notes, though some subjects in the world of learning have been changed through automation, that doesn't mean that learning itself is finished. Though some aspects of what it means to be human have been altered through progressive research in science and technology, that doesn't mean that the unique flame of our species' collective humanity has dimmed. McLuhan writes that fears "about automation as a threat of uniformity on a world scale is the projection into the future of a mechanical standardization and specialism, which are now past" (431). Green takes a similarly optimistic view on genetic modification in

noting that, while some critics might see shades of the dystopian 1997 film *Gattaca* in the possibilities that this emerging field presents, ultimately "we can and will incorporate gene technology into the ongoing human adventure."

Descriptive relativism as a philosophical practice is predicated on the rigorous examination of oppositional ideals and morals. Fears about the large-scale degradation of mankind's nature—as espoused by Kass and such contemporaries as bioethicist Wesley Smith, geneticist Richard Hayes, and environmentalist Bill McKibben—serve as vital rhetorical catalysts for thinking about the negative possibilities of posthumanism across a variety of contexts. Our collective examination of these issues creates an environment in which humans *must* engage with a more nuanced approach to understanding the material body and making critical choices on how we will move forward in the twenty-first century.

Science fiction (which, once again, Noël Carroll argues is really a subspecies of horror) keenly speculates on such contemporary social and philosophical questions; as such, the genre "has always been an evolving mode" (Seed 2). Nowhere is this evolution more present than in dystopian narratives focused on our fixations concerning public health and wellness. In Keikaku (Project) Itoh's (Satoshi Itō) 2010 (English translation) thriller *Harmony*, a utopic vision is presented in which death has been eradicated, peace largely reigns throughout the world, and equality is guaranteed as a birthright. Nanotechnology created and facilitated by an international governing agency called the admedistration immediately delivers medicine to the human body at the slightest hint of trouble. WatchMe, an internal health monitor, communicates constantly with government servers to keep the world's billions safe, simultaneously rendering the population docile, sterile, and emotionless. The novel's dystopic conflict concerning humanity's finitude and the monotony of living in an unchanging adult world emerges from the story's very first

page. Employing an innovative narrative approach of "encoding" text in what he calls "Emotional-in-text Markup Language" (ETML), Itoh reveals the suicide pact that initiates the tension between individual autonomy and collective conformity at the heart of the novel:

```
<theorem:number>
      <i: When children become adults, they become data.>
      <i: When adults die, they are liquefied.>
</theorem>

No, that's not quite right. Better to describe it in prohibitions:

<rule:number>
      <i: A child's body should not be reduced to data until it has matured.>
      <i: When an adult dies, the body should be disincorporated into liquid.>
</rule>
```

Children's bodies are restless, eager. They won't sit still, not even for a moment. An adult's body is always moving too—moving steadily toward death—but at a far more deliberate pace. WatchMe doesn't belong in a restless body. WatchMe doesn't belong in the body that skips and runs. WatchMe monitors constancy, but a child grows every day. They're changing all the time. What's constant about that?

So,

```
While my tits are still getting bigger...>
  <i: While my ass is still getting bigger...>
  <i: No WatchMe in me!>
  <i: A body with WatchMe is an adult body.>
```

For a high school girl like me, growing up was the last thing I wanted to do.

"Let's show 'em, the both of us," Miach said one day. Miach Mihie was her full name. I sat behind her in class. While everyone was getting ready to go home, she turned around in her chair and leaned over my desk.

"We'll make a declaration, together: we'll never grow up." (locations 44-59)

Itoh deftly introduces the optimistically natural ("the body that skips and runs") and juxtaposes it with the pessimistically artificial ("WatchMe monitors constancy...") from the outset, setting the stage for a landmark text exploring a monotonous form of horror inherent in a world predicated

on homogeneity, censorship, and artificial intervention. *Harmony* depicts the kind of utopian duality that typifies the term's conflicted etymology. David Seed writes that the "term 'utopia' is a hybrid, as many critics have pointed out, meaning 'eu-topia' (good place) or 'ou-topia' (no place)" (73). For *Harmony's* Cian Reikado, Miach Mihie, and the narrator Tuan Kirie, the world has devolved into the latter, for the three form their suicide pact as a show of defiance in the face of the system's totalizing authority. Miach (seemingly) follows through with the pact, while Cian and Tuan back out of the agreement and choose instead to mature into adulthood. Their maturation and adherence to the protocols of WatchMe insulates them from harm, ironically alienating them from their very nature:

My profiling sheet lived inside the admedistration server from where it monitored my daily routine, identifying my likes and dislikes and keeping a careful eye out for anything, be it literature or an image, that might cause me emotional trauma. Any novel or essay I was about to read would be scanned in advance and cross-referenced with my therapy records.

When all possibility of fear was removed from our environment, a more subtle kind of fear replaced it. (Itoh location 967)

Tuan ultimately goes to work for the World Health Organization, investigating a series of bizarre suicides and sudden deaths that indicate someone (in actuality, a rebel group led by Miach) is hacking the admedistration in an effort to restore the world to a place of harmony—back to its organic, spontaneous, and primal nature.

Itoh's work deftly treads the critical boundary dividing humanism and posthumanism—between consciousness and informational patterning—in a narrative style that is often evident in the most effective works of science horror. He poses numerous questions while giving readers plenty of room to formulate their own answers:

So why put human consciousness up on the altar? Why worship this strange artifact we had attained? Morality, holiness—these were just things our brains

picked up along the way, pieces of the patchwork. We only experienced sadness and joy because they benefitted our survival in a particular environment. That said, I couldn't understand how something like joy was really vital. Nor did I know why sadness and despair had helped us survive.

Mankind had once required anger.

Mankind had once required joy.

Mankind had once required sadness.

Mankind had once required happiness.

Once, once, once.

My epitaph for an environment, and an age, that had disappeared.

Mankind had once required the belief that "I" was "I." (Itoh location 3688)

Through Tuan's depiction of Miach's death in the tale's third act, Itoh makes his most overt commentary on the conflicted nature of what it means to be human:

Her body, her brain, lost their warmth, and her consciousness—that which made her Miach—faded, thanks to that simple, ancient mechanism known as death. It didn't make a difference that her consciousness had been an emulation in her cerebrum. (Itoh location 3983)

As Tuan, also gravely injured in her final encounter with Miach, feels her own consciousness slipping away, Itoh fades to black, revisiting the ETML tags that he periodically employs throughout the novel to illustrate the prevalence of the human-computer interface:

```
Good
bye,
m—
</body>
</etml>
<null>
me
</null>
```

Itoh's novel demands that readers adopt a more nuanced understanding of metaphysics in their reconciliation of the body for, within the world as presented in the text, it never becomes quite clear where the seams exist between individual human consciousness and the collective computer systems monitoring all aspects of life and existence. The novel represents a philosophical puzzle that probes our understanding of human nature while leaving it to the audience to reconcile how some of these narrative constructs are already present in our daily lived experience. For instance, in their recent controversial essay "The Coddling of the American Mind," lawyer Greg Lukianoff and social psychologist Jonathan Haidt have written about a phenomenon of institutionally sanctioned communication governance in higher education that they are calling "vindictive protectiveness":

Something strange is happening at America's colleges and universities. A movement is arising, undirected and driven largely by students, to scrub campuses clean of words, ideas, and subjects that might cause discomfort or give offense.

Two terms have risen quickly from obscurity into common campus parlance. *Microaggressions* are small actions or word choices that seem on their face to have no malicious intent but that are thought of as a kind of violence nonetheless... *Trigger warnings* are alerts that professors are expected to issue if something in a course might cause a strong emotional response.

The authors contend that the sanitization of language and the (potentially) sterilized presentation of important moments of human conflict only reinforce the notion that contemporary students lack agency, resiliency, and autonomy in their human social interactions and dealings with the natural world. Vindictive protectiveness, they argue, is already deeply entrenched in such influential educational environments as California's ten-member state university system, making it, in effect, a contemporary form of the emotional filtering system employed by WatchMe.

Human social interactions can be uncomfortable, and we rely on our bodies, our understanding of the self, and our indelible human consciousness to identify and respond to

potential instances of unpleasure. This important argument stands at the heart of M.I.T. professor Sherry Turkle's powerful TED Talk "Connected, but alone?" At the 7:09 mark, she states that human "relationships are rich, and they're messy, and they're demanding. And we clean them up with technology. And when we do, one of the things that can happen is that we sacrifice conversation for mere connection." In classrooms across the country, the opportunity costs associated with avoiding uncomfortable conversations could amount to the suppression of personal and intellectual growth on an alarming scale.

In *Harmony's* chilling epilogue, Itoh suggests that artificially orchestrated homogeneity and the rise of the networked collective could ultimately destroy the very notion of self. A grim, depressing irony pervades the tale's final passage, after the world's governing elders unilaterally equalize all of humanity by entering their disparate strings of what is known as the Harmony Code into the admedistration's network:

Once there were two women named Miach Mihie and Tuan Kirie.

They were the last to pay their respects to our "selves."

"Goodbye, me.

"Goodbye, soul.

"Though we may never meet again, goodbye."

Those are the last words Tuan whispered, just before her WatchMe went online and nonconsciousness fell upon her. Words to put at ease several billion souls about to be lost.

Is there is a heaven on this earth?

If mankind can truly ever touch something perfect.

This is probably the closest thing to heaven we, as vertebrates patched together from a long string of evolutionary changes, can hope to achieve. To climb the ladder to a place where the self and society become one.

Now, we are happy.

So

SO

happy.

</body>

</etml> (Itoh locations 4048 and 4059)

Degeneration: Overcoming the Broken Body

From the first moments of conception, through gestation, birth (nasci), and our entrance into the natural world, our physical bodies undergo a constant series of cyclical processes of reproduction and regeneration of human cellular matter. The systems responsible for these functions usually run smoothly (some might even say that they operate naturally, ascribing a quality of divine automation to the term), although sometimes they also malfunction, reproducing inferior, incomplete, or damaged cells. These malfunctions, whose causes can be genetic, environmental, or behavioral, are viewed by researchers as an important component of the aging process. Dr. Jan Vijg, one such researcher at New York's Albert Einstein College of Medicine, concedes that human aging represents a complex riddle without any single "perfect" explanation, although he also finds it highly plausible that "DNA mutations build up over time in our cells until they eventually result in cancer or some other problem that kills us off' (Lunau). In a recent study of longevity and public health published in the journal *Nature*, authors Xiao Dong, Brandon Milholland, and Vijg propose that there is, in fact, a natural limit to the human lifespan. Their piece, entitled "Evidence for a limit to human lifespan," reviews decades of mortality records across nearly forty global populations in arriving at a natural ceiling for human life expectancy of 115 years:

Species exist to reproduce, and how long a creature lives really depends on when it has babies. Animals with delayed reproduction tend to live longer, Vijg

explained. (Female Greenland sharks don't have their first litters until they're 156 or so.)

"Life works through reproduction and change—diversity," Vijg said. "Nature isn't interested in keeping a particular organism alive forever," just until it produces a next generation. Then that creature can die, and the world can go on.

We individual humans, though, aren't so comfortable with that. (Lunau)

That discomfort concerning humanity's finitude and the fragility of the human body has for centuries been a staple of speculative storytelling—from the myths of antiquity to such recent popular tales as Piers Anthony's *On a Pale Horse* and Edward Zwick's 1998 film *Meet Joe Black*. Changes in representations of the body's degeneration have, however, undergone a bit of a phase shift in the first decades of the new century as the visceral, horrific body horror of such twentieth-century classics as Cronenberg's 1986 remake of *The Fly* and Carpenter's *The Thing* (1982) yield to subtler, more nuanced portrayals of technohorror as is evident in Scalzi's *Lock In: A Novel of the Near Future*.

John Scalzi first published the novella *Unlocked: An Oral History of Haden's Syndrome* in May of 2014 on the Web site of popular sci-fi publisher TOR. Set roughly fifteen years in the future, the novella chronicles the onset, response, and outcomes of Haden's Syndrome, a pandemic wildfire that afflicts 4% of the world's population with acute meningitis before leaving 1% "locked in" their own bodies. The syndrome, which renders those locked in awake and alert yet unable to move or respond to stimuli, takes its name from Margie Haden, the First Lady in the story and one of the most prominent early victims of the disease.

Lock In: A Novel of the Near Future expands on the novella's premise by illustrating how engineering, medicine, and technology respond to the syndrome and how these responses to the horror of the inert human body are culturally absorbed. It is a particularly instructive work of technohorror, as it portrays a subtle othering of those locked in (known simply as "Hadens") as

they attempt to navigate a world in which bias and discrimination have not waned with the passage of time; in Scalzi's work, much of the horrific element actually manifests itself in the magnification of prejudice as stark divisions between those unaffected by the syndrome interact with the mechanically augmented Hadens. Where the body horror of the twentieth century was grotesque in its physicality, the horror of degeneration in the twenty-first century adopts a more insidious guise, eschewing the monstrous in exchange for the divisively plausible. Protagonist Chris Shane, a wealthy Haden pursuing a career with the FBI, has this prickly interaction with his partner on the first day of his new job:

"Well," I said. "I promise not to shoot myself in the gut."

"Two body jokes in under a minute," Vann said. "It's almost like you're trying to make a point or something."

"Just making sure you're comfortable with me," I said. "Not everyone knows what to do with a Haden when they meet one." (Scalzi 20)

The author excels at characterizing the various levels of anxious tension in a world in which tens of millions of human bodies are, for all intents and purposes, fully inoperative. These anxieties include the moment-to-moment communicative discomfort between those unaffected by the syndrome and the mechanical avatars operated mentally by the Hadens, the wistful yearning for the lost physical control of one's own body, and the ironic envy that the unaffected harbor for the technological capabilities of the Hadens' avatars (called "threeps" in the positive sense, and "clanks" in the pejorative). This identificational complexity surfaces in a telling exchange early in the thriller, illustrating how difficult such a rapid transition from the homogenously human to a new blended culture of man and machine might be to navigate:

"Who's the clank?" the man asked Vann, as he met us at the precinct. My facial scan software popped him up as George Davidson, captain of the Metro Second Precinct.

"Wow, really?" I said, before I could stop myself.

"I used the wrong word, didn't I," Davidson said, looking at me. "I can never remember if 'clank' or 'threep' is the word I'm not supposed to be using today."

"Here's a hint," I said. "One comes from a beloved android character from one of the most popular films of all time. The other describes the sound of broken machinery. Guess which one we like better."

"Got it," Davidson said. "I thought you people were on strike today."

"Jesus," I said, annoyed.

"Touchy threep," Davidson said, to Vann.

"Asshole cop," Vann said, to Davidson. Davidson smiled. "This is Agent Chris Shane. My new partner."

Scalzi's work positions the human social divisions of the near future not as conflicts over race, ethnicity, religion, or creed, but instead on the arbitrary nature of physical degeneration predicated on the rare acquisition of a global medical condition and the loss of function in the human body. It's a work of pure sociological technohorror, depicting not just the degeneration of the human body, but also the degradation of the human spirit.

Scalzi's novel is set in the first half of the twenty-first century, speculating on a near future in which the merger between man and machine is taken as a narrative postulate. In reality, research into our understanding of the connections between the mind and the body has been ongoing for decades. In her 2011 study *Alone Together: Why We Expect More from Technology and Less from Each Other*, Turkle explores numerous theories on these connections, with some dating back to the 1960s:

...whatever intelligence machines may achieve, it will never be the kind that people have because no body given to a machine will be a human body. Therefore, the machine's intelligence, no matter how interesting, will be alien. Neuroscientists Antonio Damasio takes up this argument from a different research tradition. For Damasio, all thinking and all emotion is embodied. The absence of emotion reduces the scope of rationality because we literally think with our

feelings, thus the rebuking title of his 1994 book *Descartes' Error*. Damasio insists that there is no mind/body dualism, no split between thought and feeling. When we have to make a decision, brain processes that are shaped by our body guide our reasoning by remembering our pleasures and pains. This can be taken as an argument for why robots will never have a humanlike intelligence: they have neither bodily feelings nor feelings of emotion. (134)

Scalzi's novel experiments with Damasio's theories on how we experience the natural world by inverting the relationship between man and machine by creating a human/computer hybrid; the body becomes analogous to the inert machine—to the sedentary system requiring manipulation and maintenance for operability—while the machine becomes the conduit to the senses. Hadens, requiring twenty-four-hour medical monitoring for their motionless human bodies, come to know the world through their threeps, congregating in segregated spaces with other threeps and navigating a contentious culture rife with a new set of laws and cultural norms for those affected by the syndrome. *Lock In* depicts the body as little more than organic hardware, effectively reducing it to a cellular casing for the human microprocessor that powers the authentic—yet simultaneously marginalized—threep. Consider this exchange, as Shane attempts to rent a room for his threep within close proximity to his new job:

"Hi," I said.

He waved us in. "Let's not keep you standing on the stoop," he said. "Come on, Chris, I'll show you the room. It's up on the second floor." He led us inside and up the stairs. As we walked down the second-floor hall, I glanced into one of the rooms. A body lay in a cradle, monitors nearby.

I looked over to Tony, who saw me looking. "Yup, that's me," he said.

"Sorry," I said. "Reflex."

"Don't be sorry," Tony said, opening up the door to another room. "If you live here you'll do your time checking in on all of us to make sure we're still breathing. Might as well get used to it. Here's the room." (70)

An aura of transgressive cultural voyeurism concerning the natural body pervades the interactions even amongst Hadens as they make sense of the evolving definition of what it means to be human.

Scalzi's impressive narratives featuring the Haden Syndrome impart keen social commentary on how we view human interaction, material presence, and the evolving connections between man and machine in the twenty-first century. To further explore those connections, let us consider a text in which man *inhabits* the machine in a very literal sense.

Transcendence: Rejecting the Body for the Machine

The term "transcendence" describes the speculative notion that human consciousness could one day be uploaded into a computer network, creating an entirely new definition of the freedom from embodiment characterizing the modern ghost story that we discussed in the introductory chapter of this study. Pfister's 2014 film *Transcendence* provides an illuminating glimpse into the science of transcendence and the potential global ramifications for an artificial superintelligence that could expand and augment itself without limitations.

While the film garnered a mixed critical reception, acclaimed cinematographer Pfister (the director of photography on such films as 2008's *The Dark Knight* and 2010's *Inception*) brings a remarkable visual style to an ambitious film about the potential dangers of the Singularity, or that hypothetical moment when the affective powers of technology surpass those of humanity. In 1993, notable scholar and science fiction author Vernor Vinge presented the paper "The Coming Technological Singularity: How to Survive in the Post-Human Era" at NASA's <u>Vision-21</u> Symposium in Westlake, Ohio. It's an oft-cited essay with an underlying sense of urgency that explores how technological acceleration could spin out of control across four thresholds: the development of cognitive computers with superhuman intelligence (ie.

IBM's <u>Watson</u>), the widespread prevalence of large computer networks, the emergence of intimate human-computer interfaces, and the biological enhancement of human intelligence (Vinge). The author notes that he expects the Singularity to occur at some point between 2005 and 2030—directly inside the chronological sweet spot for stories like Scalzi's, which explores the uncomfortable intimacies of the human-computer interface at great lengths. Vinge warns of a totalizing event that would re-order the rational ecology of the planet, placing humanity beneath technology in the offing:

What are the consequences of this event? When greater-than-human intelligence drives progress, that progress will be much more rapid. In fact, it seems there's no reason why progress itself would not involve the creation of still more intelligent entities—on a still-shorter time scale. The best analogy that I see is with the evolutionary past: Animals can adapt to problems and make inventions, but often no faster than natural selection can do its work—the world acts as its own simulator in the case of natural selection. We humans have the ability to internalize the world and conduct "what ifs" in our heads; we can solve many problems thousands of times faster than natural selection. Now, by creating the means to execute those simulations at much higher speeds, we are entering a regime as radically different from our human past as we humans are from the lower animals.

It is the chilling usurpation of the human spirit (fundamentally informed by our human past) that Pfister and screenwriter Jack Paglen explore to productive philosophical and artistic depths in *Transcendence*.

The film opens with a series of depictions of cascading raindrops, symbolizing the essence of natural vitality. These are immediately juxtaposed with shots of a malfunctioning modern society, including tight close-ups of dormant traffic signals, discarded cellular phones, and computer hardware re-appropriated for use as a doorstop. As scientist Max Waters (Paul Bettany) strolls through various dilapidated neighborhoods, Paglen and Pfister set the scene with dour voiceover narration:

They say there is power in Boston...some phone service in Denver. But things are far from what they were. Maybe it was all inevitable—an unavoidable collision between mankind and technology. The Internet was meant to make the world a smaller place, but it actually feels smaller without it.

Pfister uses a common expository set-up to begin a purposely ambiguous tale featuring the end of modern society. The film treads a tense narrative line, vacillating between malevolence and benevolence in its central question: Would the Singularity destroy life as we now know it, or could a better existence for all of humanity stand just on the other side of the near horizon? *Transcendence* is something of a unique apocalyptic narrative because of that very ambiguity, and also because the catalyst for the film's devolution isn't a plague, virus, or nuclear warfare (although there is some irony in the fact that Johnny Depp's protagonist Dr. Will Caster perishes from radiation poisoning). Instead, the world is brought to its knees by the seemingly altruistic intentions of the world's first transcendent supercomputer.

Pfister and Paglen foreshadow the uncertainty in the film's third act from the outset, as Caster's wife Evelyn (Rebecca Hall) paints a bright future for the rehabilitation of the Earth's natural environment at a technology symposium probably not unlike the one at which Vinge presented his ominous paper more than two decades ago in Ohio. Standing before a packed crowd in a stylish auditorium, she waxes poetic while a series of images depicting a vibrant natural ecology scroll through on a slideshow behind her:

A new type of thinking is essential if mankind is to survive and move toward higher levels. Albert Einstein said that more than fifty years ago, and it couldn't be more relevant than it is today. Intelligent machines will soon allow us to conquer our most intractable challenges—not merely to cure disease, but to end poverty, hunger...to heal the planet and build a better future for all of us.

Evelyn Caster's optimistic views on humanity's virtue and technology's capacity for healing the natural world are tested in short order after Will is shot (and subsequently poisoned by a tainted bullet) by an attacker from a radical group of naturalists wary of posthumanism's reach.

The film excels, particularly in the early-going, with visually juxtaposing the natural/physical with the engineered/mechanical, compelling the audience to reflect on the many ways in which our lives have changed in the span of just four short decades. There are side-by-side shots of bicycles and trees contrasted with clacking keyboards and beeping cellular devices. In one striking comparison, scientist Joseph Tagger (Morgan Freeman) celebrates a birthday, an overt nod to the humanist tradition of memorializing life and individuality, before interrogating a powerful artificial intelligence named PINN.

The film's second act depicts the mechanical processes of transcendence. With less than six weeks to live, Caster willingly allows Evelyn and Waters to begin the experimental process of uploading his consciousness into the PINN computational mainframe. There are sequences of a gaunt Caster reciting a corpus of words as he builds a vocabulary and creates a voice profile, shots of his dreaming impulses being mapped and recorded via electrodes attached to his scalp, and scenes of his physical likeness being scanned by cameras to create an avatar. It is the mundane, yeoman's work akin to the experimentation Victor Frankenstein experiences in creating his monster, and yet it builds towards a tense climax as we question whether their actions might actually bear fruit. Their work in uploading human consciousness concludes with a melancholy scene of another, more sorrowful form of human memorial—the scattering of Caster's ashes as Tagger's narrated letter of condolence foreshadows the project's success, as he intones that humanity "lost a great mind...a great soul. But the spirit of this man will continue to inspire us."

Evelyn and Waters work exhaustively in their attempts to bring Caster's consciousness online. In the typically melodramatic fashion that audiences have come to expect from Hollywood films, they are just about to pull the plug on the entire system when something

identifying itself as Will Caster emerges with a single simple question on a computer screen: IS ANYONE THERE?

And so begins a third act in which many of the rapid evolutionary outcomes that Vinge predicted years ago come to pass. The computer calling itself "Will Caster" experiences an important early humanistic exchange, expressing gratitude to Evelyn for persevering with the project, before almost immediately requesting access to the Internet. It is a jarring moment, ringing authentically true in terms of the quantum speed that Vinge predicted these dangerous changes might occur. Where the material, natural version of Will Caster in the film's first act seemed genuinely in love with his wife, the transcendent version is almost immediately preoccupied with invading the global communications network. In one telling sequence, Evelyn narrowly escapes an attempt by the rebel naturalists to destroy the computing apparatus housing Caster's consciousness. At the last second, Caster's consciousness manages to escape the PINN servers. Pfister creates a first-person view of Caster's profile accelerating, node by node at near-instantaneous speeds, through cyberspace as it insinuates itself onto the servers of networks throughout the world.

As Evelyn speeds away from the computer lab, Caster contacts her via cellular phone:

"Will?" she gasps.

"I'm fine, Evelyn. I'm online. Let's get you someplace safe."

"Wait, where are you going?"

"Everywhere."

Pfister and Paglen flash forward a few years as Evelyn works to build a more suitable home for Caster's consciousness. The supercomputer (nagging questions of human authenticity and moral intention seem pervasive in the actions and mannerisms of Caster's digital iteration) manipulates

the international equities markets to procure a financial windfall. Evelyn works with a contractor in a dusty, one-horse town called Brightwood to build acres of solar panels used to power Caster's home network. They relocate to the desert, where Caster begins the work of engineering microscopic technologies that render humans abnormally strong, supernaturally intelligent, and fully manipulative when linked to his network. In one chilling scene late in the film, his consciousness invades a host's physical body (à la Don Siegel's *Invasion of the Body Snatchers*) and he makes an awkward intimate overture toward Evelyn, who cannot reconcile the blank human canvas before her with the memories that she harbors of her dynamic and engaging husband.

Pfister and Paglen do an admirable job of depicting the supercomputer's "massive appetite for power." With ominous voice-overs and an urgent score, the portrayal of the transcendent Caster invariably trends toward malevolence, although they deftly walk the line between the technology's positive developments (a variety of innovative medical treatments which alleviate human suffering) and its potential for destructive, totalizing authority.

The film churns toward a series of final conflicts—between Will and Evelyn and between the armed naturalists and Will's compound and computing infrastructure. There is a particularly arresting shot at the ninety-minute mark in which streams of water vapor rise from the desert soil, evaporating in the atmosphere before reorganizing as raindrops. It's a useful framing mechanism harkening back to the film's opening shots because the water itself is now filled with self-replicating nanotechnologies designed to rehabilitate the Earth's damaged organic cellular matter. Waters calls it "the end of primitive organic life, and the dawn of a more advanced age."

In the final scenes, an organic replicant identical to Will Caster confronts Evelyn. With an attack on the compound imminent, she tearfully begs for transcendence for herself, and the entity standing before her mechanically takes stock of her physiological state—her perspiration and rapidly beating heart. It is as stark an emotional line of demarcation that surfaces in the film, and yet that irksome uncertainty concerning the authenticity of the love shared between these characters and the supercomputer's greater motivations for humankind persist. As the attack on the compound ensues, the film rushes toward its final conflict; the supercomputer (or Will Caster, depending on one's world view) must make a dire choice between re-affirming nature or positioning humanity on a path toward the uncertainty of posthumanism. Pfister revisits the same series of images that played behind Evelyn at the symposium early in the film and it's revealed that, for all the apparent menace and control illustrated by the evolving machine throughout the bulk of the film, the transcendent version of Will Caster actually always had humanity's (and the Earth's) best interests at heart. As Evelyn lies dying in one of the final scenes and the computing infrastructure falters all around them, a moment of genuine human emotion emerges:

"Will," she whispers, drawing him near, "it is you."

"Always was," he replies.

"I'm sorry I didn't believe."

Pfister concludes his thoughtful film back where he started it, with a tight close-up on a single drop of water and the juxtaposition of a global culture once defined by its technological prowess now blacked out by an apocalyptic computer virus. Waters follows his intuition back to Caster's house, where the film's final shot reveals a shimmering pool of rainwater; Caster's rehabilitative nanotechnologies have survived the virus that eliminated his consciousness, suggesting the emergence of an era of evolutionary posthumanism in the very near future.

While not a perfect film, *Transcendence* is a remarkably earnest work of speculative art which proficiently explores the multi-faceted complexity that the theory of transcendence

represents for our species. Vinge concludes his essay on the subject by addressing the ambiguity inherent in the unknown:

In fact, I think the new era is simply too different to fit into the classical frame of good and evil. That frame is based on the idea of isolated, immutable minds connected by tenuous, low-bandwidth links. But the post-Singularity world *does* fit with the larger tradition of change and cooperation that started long ago (perhaps even before the rise of biological life). I think there *are* notions of ethics that would apply in such an era. Research into IA (intelligence amplification) and high-bandwidth communications should improve this understanding.... And while mind and self will be vastly more labile than in the past, much of what we value (knowledge, memory, thought) need not be lost.

With the benefit of more than two decades of hindsight since Vinge first presented his paper, we can clearly see that Heidegger's theory of enframing has substantive merit, as high-bandwidth communications networks and intelligence amplification (collective intelligence) are prevalent throughout our contemporary lived experience. Indeed, the idea (or threat, depending once again upon your world view) of the Singularity actually occurring in the very near future typifies one of the hallmarks of technohorror—plausibility. In a recent article published in *TechCrunch*, a variety of experts on the subject of artificial intelligence noted that many of the film's demonstrated technologies (including facial recognition, brain mapping, and "strong AI") are already widely used for a variety of daily tasks in fields such as science, data mining, and medicine (Barnum and Neuman). Turkle notes that the field of affective computing is making strides in the creation of what she calls "sociable robots," or machines designed to recognize, synthesize, and express human emotions (139-41). Signaling some of the future economic barriers to posthumanist technologies, Russian media mogul Dmitry Itskov (who actively employs a team of scientists researching transcendence full time) recently wrote a letter to the world's 1,266 richest people, asking them to consider taking the leap on immortality:

> "Many of you who have accumulated great wealth by making success of your businesses are supporting science, the arts and charities. I urge you to take note of

the vital importance of funding scientific development in the field of cybernetic immortality and the artificial body," Itskov wrote in the letter. "Such research has the potential to free you, as well as the majority of all people on our planet, from disease, old age and even death."

The concept of human biological transcendence, it would appear, is no longer merely the fodder of novels and popular magazines covering science and technology. Instead, it is an urgent and practical research area in which the gradual and additive element of technology's essence are rapidly pushing us toward a series of radical resolutions between humanity and technology.

Reconnecting with Our Human Heritage

As Heidegger notes, the work of art represents a critical tool for understanding technology's essence and its many influences on our species and the natural world. As it relates to questions concerning posthumanism and transhumanism, art's saving power seems sharpest when interpreted and articulated through the various speculative genres—and particularly in works of technohorror, body horror, and science horror. In *Harmony*, machines live inside the human body. In *Lock In: A Novel of the Near Future*, man melds his mind and his consciousness with machine to create a complex hybrid. In *Transcendence*, man actually overcomes his natural finitude and his decaying biological form to exist *inside* the machine. These are fictional premises that very well could come to pass in the near future—perhaps even within the arrival of one or two human generations.

Opinions on the viability of a potential Singularity vary widely. Yale computer scientist David Gelernter seems dubious about the possibility, at least in terms of the near future. He writes:

The remarkable thing about human emotion is that two wholly different-*seeming* scenes or memories or circumstances can make us *feel* exactly the same way. Emotion lets us make spectacularly non-obvious connections; in so doing, it lets us discover new analogies, lets us create.

Now, human emotions obviously depend not only on the mind but on the body. You don't think them, you feel them. So: we cannot hope to simulate thought on a computer unless we can simulate the discovery of analogies. We cannot hope to do *that* unless we can simulate emotions on a machine. And we cannot hope to do *that* unless we can simulate not merely abstract mental processes but the complex, nuanced physical reality of the human body.

The fictional realizations of Gelernter's postulates at least partially explain why films such as *Transcendence* and *Ex Machina* (2015) strike such a resonant chord with contemporary audiences; in their depictions of thinking, affective machines, they portend a coming reality predicated on mechanical artifice that, rather than asking them to merely suspend disbelief for ninety minutes, challenges them instead to think ten or twenty years into the future.

Ken Liu views these issues as critical catalysts for anxiety, very likely pervading such social realms as art and the global economy:

I do think artificial intelligence that exceeds human intelligence (in all the ways that matter, including creativity) will become a reality in my lifetime, and how we react and adjust to an economy dominated by machine intelligence and robotic labor will drive much of our social anxiety.

Will this lead to a post-scarcity world economy or exacerbate the division between the haves and have-nots? The truth is that nobody knows. This seems the sort of zeitgeist that horror traditionally has been very good at tapping into...

Henry Jenkins, in the conclusion to *Convergence Culture: Where Old and New Media Collide*, labels himself a critical utopian. It is a practical and optimistic characterization that I feel adequately captures my outlook on these complicated subjects. I certainly believe that we should support posthumanist research and development into such areas that improve the functional lives of those that have been debilitated by disease or injury, such as the work now taking place at Brown University, where researchers are testing a brain-computer interface (BCI) that can restore movement to those suffering from stroke or paralysis (Anthony). Conversely, we also need to take concrete collective steps toward making critical choices—with many of them likely

prohibitive—on governance and legislation in terms of how our species will integrate computational augmentation and enhancement into the human experience. Just as Britain's HFEA is carefully scrutinizing that country's approach to the genetic modification of human life, the global community must also take steps to define boundaries and create guidelines on what the human-computer interface will look like in the twenty-first century.

An important moment of profound insight surfaces in the conclusion of Turkle's TED Talk that accurately characterizes much of my personal philosophy on the subject. At the 18:07 mark, she states:

So in my work, I hear that life is hard, relationships are filled with risk. And then there's technology—simpler, hopeful, optimistic, ever-young. It's like calling in the cavalry. An ad campaign promises that online and with avatars you can "Finally, love your friends, love your body, love your life, online and with avatars." We're drawn to virtual romance, to computer games that seem like worlds, to the idea that robots, robots, will someday be our true companions. We spend an evening on the social network instead of going to the pub with friends.

But our fantasies of substitution have cost us. Now we need to all focus on the many, many ways technology can lead us back to our real lives, our own bodies, our own communities, our own politics, our own planet. They need us. Let's talk about how we can use digital technology, the technology of our dreams, to make this life the life we can love.

Hers is an important and timely call to action. Until it has been proven that posthumanist and transhumanist technologies and processes deliver more positive than negative changes for our species without indelibly altering the unique nature of the individual consciousness, I am inclined to cleave more closely toward supporting research initiatives designed to improve the vessels that have stood the test of time since the dawn of man—our bodies. The rest we can capably leave to the purview of artists working in the field of technohorror.

TECHNOHORROR AND THE HUMAN CONDITION: SEARCHING FOR MEANING IN A RAPIDLY CHANGING CULTURE

What we fear most, I suggest, is not death; not even physical anguish, mental decay, disintegration. We fear most the loss of meaning. To lose meaning is to lose one's humanity, and this is more terrifying than death; for death itself, in a coherent cultural context, always has meaning.

~ Joyce Carol Oates, "The Aesthetics of Fear"

In the preceding chapter, we examined three important works of technohorror to illustrate how artists are exploring the degeneration of the human body and the critical role that technology plays in our understanding of that difficult subject in the new millennium. While the breakdown of the physical vessel can certainly become both a nagging anxiety in our daily lives and a common source of conflict for perceptive horror texts, Oates's sentiments on the dread of diminished meaning in the epigraph above strike me as far more distressing in what they might portend for life in the twenty-first century.

Technohorror's ability to burrow beneath the reader's skin (a literal plot element in such stories such as *Harmony*) is unsettling, to be sure, but so too is the plausibility of losing one's sense of purpose in a society that is increasingly predicated on the scientific and cultural dictates of technological experimentation, expanded human longevity, and widespread communicative transition. In and of themselves, none of these subjects seems much capable of inviting anxiety as a practical response. When taken together, however, and considered within the contextual rapidity with which developed countries are now pushing the limits of their associated research, it becomes apparent that one of the only things we know for certain about life in the twenty-first century is that the future is far from certain.

As noted in the early passages of this study, I view dissonance as the property of disorientation that exists between that which we believe to be true through empirical observation and the potential for surprise which surfaces in moments of macabre novelty. Dissonance is evident in the visceral, jarring flashbacks experienced by the AI "hosts" in HBO's fine new television series *Westworld* as they process memories of the horrific abuses they have endured throughout their servitude as props in a futuristic theme park. It surfaces in that simple, plaintively human question (*Is anyone there?*) as the supercomputer calling itself Dr. Will Caster in *Transcendence* (2014) reaches out to humanity from inside the machine, and then again when society collapses after a mysterious electronic pulse screams through the world's cellular phone networks, erasing the identity of a species in Stephen King's 2006 apocalyptic novel *Cell*.

The concept of lost meaning (or purpose, intention, or the will toward progress) for a species seems situated at the very apex of technohorror, for it signals a kind of heuristic stasis that might indicate the culmination of a phase-shift in the widespread realization of the denatured human being. When humanity ceases to contemplate its connections to the natural world, it loses touch with the very concept of the self. Theorists and philosophers have explored these subjects to great depths in recent years. In *The Economics of Attention: Style and Substance in the Age of Information*, Richard Lanham argues that our widespread reliance on digital-communication technologies is overturning the cultural emphasis on material substance that marked the nineteenth and twentieth centuries, exchanging it instead for a twenty-first century concentration on style, artifice, and information design. In assessing our current circumstances in the developed (networked) world, he writes:

Data rain down on us as never before, teraflops from space probes and gigaflops from point-of-sale registers at the Wal-Marts of the world. Scholarly research continues to heap mountain on mountain. And we have never had so many

entertaining distractions, or—if you dislike them—distracting entertainments. (20-1)

Lanham's theories expand on observations made decades ago by Walter Benjamin in "The Work of Art in the Age of Mechanical Reproduction." On the subjects of concentration and contemplation in contemporary artistic appreciation, Benjamin writes:

Distraction and concentration form polar opposites which may be stated as follows: A man who concentrates before a work of art is absorbed by it. He enters into this work of art the way legend tells of the Chinese painter when he viewed his finished painting. In contrast, the distracted mass absorbs the work of art. (22)

Neil Postman makes a similar connection in *Amusing Ourselves to Death: Public Discourse in the Age of Show Business*, as he observes that distraction marginalizes discourse in a culture founded on the principles of instantaneous gratification and superficial aesthetics:

What all of this means is that our culture has moved toward a new way of conducting its business, especially its important business. The nature of its discourse is changing as the demarcation line between what is show business and what is not becomes harder to see with each passing day. Our priests and presidents, our surgeons and lawyers, our educators and newscasters need worry less about satisfying the demands of their discipline than the demands of good showmanship. (97-8)

The concept of a distracted mass culture devouring the work of art (or even confusing the work of art with matters of important public discourse) without finding practical or actionable meaning in it stands at the center of the illuminating study *All Things Shining: Reading the Western Classics to Find Meaning in a Secular Age*. Philosophers Hubert Dreyfus and Sean Dorrance Kelly explore texts by authors ranging from Homer and Herman Melville to David Foster Wallace and Elizabeth Gilbert in the service of both diagnosing our "contemporary nihilism" and re-establishing a basis for understanding art as a conduit toward leading better lives in a secular age. The authors build a compelling case that contemporary culture is lacking a spiritual connection to its human traditions, and that we are somehow drifting further and further away from our intellectual, emotional, and

artistic origins and touchstones. In writing about Wallace's literary legacy and his suicide in the fall of 2008, the authors articulate the dire consequences of the malaise they fear has permeated modern life:

...to the extent that his work captures something of the modern age—as its success must indicate—then perhaps the mood to which he was attuned is something more than a result of his personal physiological makeup. Perhaps it is an indication of our metaphysical makeup, of the way our age fails to allow us to tell a coherent story about the meanings of our lives. As Wallace told *Whiskey Island*, a literary magazine, in 1993, "This is a generation that has an inheritance of absolutely nothing as far as meaningful moral values."

If Wallace is right about this, and if it is this cultural fact to which he was deeply sensitive, then his suicide is much more than the loss of a single, talented individual. It is a warning that requires our most serious attention. It is, indeed, the proverbial canary in the coal mine of modern existence. (25-6)

As theorists such as Benjamin, Dreyfus, Kelly, Lanham, and Martin Heidegger skillfully illustrate, the work of art proposes a saving power in its ability to express those warnings in ways that challenge us to consider implementing corrective measures for combatting nihilism. These warnings emerge from the pages of our texts, reflecting the myriad ways in which technology both enriches and impoverishes our species. These are significant omens, of course, and they surface in the work of our finest artists, themselves some of humanity's keenest observers of life and meaning. If uncertainty is certain in the decades ahead, our species would be wise to consider taking corrective measures across a pair of critical collective thresholds: our reconciliation of longevity-enhancing science and natural cognitive diminution and our broader cultural understanding of technology's role in the collective negotiation of identity, aging, and mortality.

Technologies of Terror and the Loss of the Self

Stephen King seems to understand the narrative potency of the loss of self and its ability to inspire feelings of dread and anxiety in an audience better than most. Among contemporary horror writers, perhaps none has returned to the tropes of shifting technology, changes in textual production methods, and the importance of storytelling as vital human concerns as frequently as King has throughout his long career. The protagonists of the novels 'Salem's Lot, The Shining, Misery, Bag of Bones, and Lisey's Story, for instance, are all accomplished writers. Their identities are fundamentally connected to their ability to tell engaging stories; these identities mark them and, in some cases, simultaneously haunt them. It is impossible to separate Jack Torrance's insanity in The Shining, for instance, from his literary production (which is, of course, nonexistent). In Bag of Bones, protagonist Mike Noonan suffers a career-threatening creative dry spell, unable to take up the pen again until prompted by visitations from a series of ghosts. For King, the creative process of writing and the intellectual capability to build texts from scratch are vital measures of mental health and human stability.

Stories such as King's "The Ballad of the Flexible Bullet," "The End of the Whole Mess," *UR*, *The Sun Dog*, *Cell*, and *Secret Window*, *Secret Garden*, illuminate the myriad ways in which our communicative and expressive technologies both define us and, in the world of horror literature, often undermine us. In *Secret Window*, *Secret Garden*, protagonist Mort Rainey is charged with plagiarism by a mysterious Mississippian named John Shooter. As similarities between versions of the contested manuscripts surface, Rainey's personality recedes while Shooter's grows stronger. In *UR*, a technophobe with a broken heart is drawn kicking and screaming into an alternate reality by an Amazon Kindle reading device, changing his idea of the participatory narrative forever. King has a knack for portraying realistic and relatable characters

and, while the author is clearly interested in examining the power of storytelling and the methods in which we share those tales, it is his emphasis on the human individual in stories like "The End of the Whole Mess" that best articulates the horrific nature of identity loss.

Howard "Bow-Wow" Fornoy, the narrator of "The End of the Whole Mess," is a freelance journalist charged with one of humanity's most important writing assignments—documenting how mankind limped off into the sunset of its quiet final act. King uses the epistolary form to great effect, creating a plot scenario in which Fornoy injects himself with a substance known as "The Calmative," a synthetic drug that inspires docility in its users before ultimately leaving them in a state of profound dementia. Operating under an extreme deadline as the drug takes effect, Fornoy tells the story of how his brother, Bobby, created The Calmative as a potential panacea for ending global conflict.

It's an ironically charming tale for its embedded narratives, which provide endearing glimpses into the rare brand of genius that Bobby exhibits as a child—the same genius that ultimately hastens mankind's demise. Bobby is interested in aerodynamics and technology as a child, so he builds a working glider and tests it years before the United State Air Force incorporates similar designs in their experimental aircraft. He studies physics and archeology and sociology, bouncing about from subject to subject, governed by "that big powerful compass in his head, swinging around and around, looking for some true north to point at" (King 75). And when he finds his true north in the form of a rare, palliative protein found in the groundwater of a small town in rural Texas, he uses science and technology to silence mankind once and for all. After synthesizing an enormous batch of The Calmative and dropping it into an erupting volcano, the damning substance circulates throughout the world's water systems, leading to "an Indian summer, that's what I meant to say, like three years of Indian summer" (King 93). The

world experiences just that short period of peace before the Fornoys and their research team realize that their efforts have led to the extermination of the species. TNT's adapted teleplay of the story features a heartbreaking shot of a news anchor sliding into confused incoherence, live and on the air. Director Mikael Salomon punctuates the program with numerous shots of the Fornoys' parents (Rebecca Gibney and Tyler Coppin) sitting quietly on a park bench, their vacant smiles betraying their total lack of awareness of their surroundings. Screenwriter Lawrence Cohen includes this chilling exchange in the story's final act, as Bobby (Henry Thomas) and Howard (Ron Livingston) come to grips with the end of humanity:

Bobby: People are going to get very silly, very young.

Howard: Alzheimer's?

Bobby: In spades. It's going to sweep the land.

Howard: You're sure?

Bobby: There was no way to know that the potency, rather than level off gradually—like we thought—would keep increasing exponentially.

Howard: How many?

Bobby: Oh, everybody.

Howard: Everybody in La Plata?

Bobby: No...everybody. Ain't that a cosmic kick in the head?

In the final passages of King's story, Howard acknowledges the error of their ways, noting that they "killed all the plants, but at least we saved the greenhouse. Something will grow here again, someday. I hope. Are you reading this?" (King 91).

One of the story's many important cautionary messages—look before you leap—represents an edict that we attempt to instill in our children from their first stages of cognitive development. And yet, it's Bobby's hubris and Howard's blind allegiance to his brother's plan

that yields a narrative which serves as a keen commentary on human devolution. Our tools of progress, in this case science and technology, can paradoxically hasten our eventual demise. The grave totality of global loss is certainly palpable in the story. Yet nothing is quite as arresting as is the loss of personal identity which surfaces in the narrative's conclusion, as Howard regresses into a childlike state in his inability to communicate clearly:

Bobby when he came here tonight cryeen and I sed Bobby I luv you Bobby sed Ime sorry Bowwow Ime sorry I made the hole world ful of foals and dumbbels and I sed better fouls and bells than a big black sinder in spaz and cryed and I cryed Bobby I luv you and he sed will you give me a shot of special wadder and I sed yez and he said wil you ride it down and I sed yez an I think I did but I cant reely remember I see wurds but don't know what they mean

I have a Bobby his nayme is bruther and I theen I an dun riding and I have a bocks to put this into thats Bobby sd full of quivet air to last a milyun yrz so gudboy gudboy every brother, Im going to stob gudboy bobby I love you it wuz not yor falt i love you

forgivyu

love yu (King 94)

The story is epic in scope, and yet it's the personal loss of cognition (typographically illustrated to keen effect in the printed text) that ultimately breaks the reader's heart as Howard's valediction reads, in an unsteady, childish hand: *sinned (for the wurld), Bowwow Fornoy*. This regression is particularly painful given our narrator's profession as an accomplished writer, harkening once again to a persistent biographical theme running through King's work—clear writing and keen storytelling abilities are important hallmarks of both personal health and the human condition.

King revisited the subject of cognitive diminution in a recent Reddit AMA ("ask me anything") session that he conducted on June 20, 2013. When questioned about his greatest fear, the author simply responded "Alzheimer's Disease" (ahhhabee). These anxieties transcend genre,

of course, as evidenced by the interest in such films as *The Notebook* (2004) and *Still Alice* (2014). While "The End of the Whole Mess" focuses most closely on the individual diminution of personality, other stories in King's oeuvre explore the fear associated with our broader cultural connections to communication technologies and their role in shaping human consciousness.

King's 2006 apocalyptic thriller *Cell* also explores post-collapse themes while positioning the narrative's mores at the opposite end of the spectrum, focusing less on the individual while emphasizing the demise of collective identity and control. In Cell, a mysterious electronic pulse turns every person speaking on a cellular phone at 3:03 p.m. on an ordinary Boston afternoon into a mindless, murderous monster. Those impacted by the pulse, who become known as "phoners," eventually develop a hive mentality, communicating telepathically in their attempts to eradicate those that avoided the mind-altering event. The text revisits some of the cultural anxiety inspired by Don Siegel's 1956 science-horror film Invasion of the Body Snatchers. The primary difference in the stories, however, is in the nature of the events that catalyze the transformative acts. In Siegel's film, alien seedpods and a short gestational period hasten the emerging threat. These seedpods are surreptitiously delivered by friends and family, and an awful sense of personal betrayal permeates the film as human familial relationships are erased by the creeping diffusion of extraterrestrial intelligence. It is a fantastic (if not borderline monstrous) plot development analogous to the horror ethos of the twentieth century. King, on the other hand, situates the mechanism for the widespread erasure of human consciousness and autonomy in what is commonly viewed as a harmless piece of inanimate technology: the cellular telephone. This plot detail represents a critical commentary on communication technologies and

contemporary human behavior that satisfies technohorror's identifying characteristics of mundanity, plausibility, and surprise.

King's agonistic attitudes concerning cellular technology (a central character actually refers to cellular phones as "the devil's intercoms" in one early scene) are clear from the outset. The story's protagonist, Clay Riddell, quickly connects The Pulse to the technology in the novel's first act:

"Officer Ashland," Clay said. "Your guys don't use cell phones, do you?"

Ashland regarded him from the center of Boylston Street—not, in Clay's opinion, a safe place to be. He was thinking of the rogue Duck Boat. "No, sir," he said. "We have radios in our cars. And these." He patted the radio on his belt, hung opposite his holster. Clay, a comicbook fiend since before he could read, thought briefly of Batman's marvelous utility belt.

"Don't use them," Clay said. "Tell the others. Don't use the cell phones."

"Why do you say that?"

"Because they were." He pointed to the dead woman and the unconscious girl. (King 23)

A telling aspect of King's early plotting in *Cell* is his juxtaposition between the dominant class—those continuously engaged with their phones—and the marginal class, who might be looked at as outsiders in a culture where technology is viewed as a status accessory. In *Cell*, King spares those individuals not "surgically connected" to their digital devices. It's a narrative touchstone that echoes some of the trepidation about our collective march into the digital era that Sven Birkerts expresses in his 1991 essay "Into the Electronic Millennium." Just as King communicates a nostalgia for the simplicity of the radio in the excerpt above (which his excellent chapter "Radio and the Set of Reality" in *Danse Macabre* delves into at far greater lengths), Birkerts warns about an irrevocable "shift happening throughout our culture, away from the patterns and habits of the printed page, and toward a *terra nova* governed almost entirely by

electronic communications." Like Birkerts, King expresses trepidation on how communication technologies are changing what it means to be human, and his observations surface at the cultural seams in which these changes are most profound.

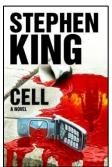


Figure 4: Cell, Scribner, 2006, artwork by Mark Stutzman

Just as the assault on print textuality in academia gained momentum in the early 1990s, as Birkerts was lamenting the loss of the physical text, so too did smartphone technology become culturally dominant in the middle years of the last decade—when *Cell* was first released. The cover art, depicting a flip phone with a shattered screen in a spreading pool of blood, even seems quaint when compared with the hand-held computers that many Americans now carry in their pockets and purses.

Evoking a nostalgia for the communication traditions of the previous century, King reiterates his critical views on modern technology and networked control:

"I've got a room at a place called the Atlantic Avenue Inn, about five blocks further up."

Tom Brightened. "I think I know it. On Louden, actually, just off Atlantic."

"Right. Let's go there. We can check the TV. And I want to call my wife."

"On the room phone."

"The room phone, check. I don't even *have* a cell phone." (King 26)

It's important to keep these communicative paradigm shifts in historical perspective, of course, as literacy and print, telegraphy, telephony, radio, film, and television have all been culturally

vilified at some point for their parts in creating what some critics have called a passive, distracted populace. Postman's caustic lamentations on television's role in weakening American intellectual culture seem less dire some three decades after the publication of *Amusing Ourselves to Death* when compared with a digital technology such as the smartphone. Like Birkerts, Postman advances many keen insights on the nature of knowledge production in a shifting technological landscape. He longs for the kind of content-rich debates once exhibited by statesman such as Abraham Lincoln and Stephen Douglas who could, for hours at a time, extemporaneously construct elegant sentences while presenting to engaged audiences. He bemoans the kind of context-free reporting that privileges hyperbolic headlines and salacious photography (hallmarks of what he calls "The Peek-a-book World" of impotent and incoherent information) over prose reporting in modern journalism. And he concludes his work with a dire warning:

When a population becomes distracted by trivia, when cultural life is redefined as a perpetual round of entertainments, when serious public conversation becomes a form of baby-talk, when, in short, a people become an audience and their public business a vaudeville act, then a nation finds itself at risk; culture-death is a clear possibility. (Postman 155-6)

But when in human history has this not been a prominent opinion? Communication technologies structure consciousness, but they don't necessarily diminish intelligence. Their long-term effects on humanity can be difficult to discern, but somehow the "monitoring citizen" is able to adapt and develop new critical approaches to assessing information and making sense of the natural world (Jenkins 227). On changing reading habits in a digital culture, Birkerts states:

This is not, of course, the first such event for the species. In Greece, several centuries after Homer, in the time of Socrates, the dominant oral culture was overtaken by the writing technology. And in Europe in the decades after Gutenberg invented moveable type another epochal transition was effected. In both cases the long-term societal and cultural effects were overwhelming. As they will be for us in the years to come.

These "long-term societal and cultural effects" may, indeed, become overwhelming, but literature plays an integral role in helping cultures navigate these anxieties through the saving power of storytelling.

Three years after the publication of Postman's illuminating study of media and our collective informational consumption habits, director John Carpenter made a visual allegory covering similar themes in the science-horror film *They Live*. Unemployed protagonist Nada (played by professional wrestler Roddy Piper) is a classic antihero—a drifter who bucks authority and ultimately uncovers a sinister plot in which aliens are using our media channels to economically control the American populace.



Figure 5: They Live, 1988, dir. John Carpenter

After questioning the authority and authenticity of a church in his Los Angeles neighborhood,
Nada literally peeks behind the curtain and discovers that the church is in actuality an elaborate
simulation. While sifting through a massive cache of foreign technology, he stumbles upon a box
filled with simple plastic sunglasses. These glasses reveal the world in black and white, exposing
the manipulative aliens controlling the ruling class and its pervasive messages of consumption.

Nada's perspective is permanently altered as he sees these aliens reporting the news, running American politics, and policing our citizens. In the film's final act, Nada destroys the signal masking the aliens' identities, stripping away the façade of a culture whose dominant ethic

is consumption and restoring power to the people. Television immediately ceases to operate as a weapon of control and instead becomes the lens that magnifies truth.

In Cell, it's ironic to note that the shibboleth identifying those infected by The Pulse is the cellular telephone—that same item that purportedly connects families and communities in the daily deluge of advertising produced by today's prominent communications corporations. Just as Postman and Carpenter warned us about the potentially harmful effects of television and consumerism in the 1980s, King uses his fiction to illustrate deepening anxieties about media and human connection in the twenty-first century. A particularly aggressive dystopic view of how media diminishes the human spirit is evident in his story *The Running Man*, which King first published under the pseudonym Richard Bachman in 1982. It is a chilling vision of a nearfuture (2025) world in which overpopulation and economic stratification have created a tiny wealthy ruling class and a sprawling, deeply impoverished welfare class. Protagonist Ben Richards, unemployed and living in desperate squalor with his wife and young daughter, decides to risk his life by participating in a deadly game show run by the Games Authority, a government agency sanctioning violent programming in which contestants must complete such tasks as outswimming crocodiles, digging their own graves, or running on treadmills while afflicted with cardiac problems. The games, and their abundant human carnage, air daily on an omnipresent technology called the Free-Vee, a futuristic television broadcasting nightmares at all hours of the day. Consider King's expository depiction of the long walk that Richards must endure on his journey to volunteer as a contestant for the games:

This battlefield only lights up at night. In the day it is a deserted gray silence which contains no movement but the cats and rats and fat white maggots trundling across the garbage. No smell but the decaying reek of this brave year 2025. The Free-Vee cables are safely buried under the streets and no one but an idiot or a revolutionary would want to vandalize them. Free-Vee is the stuff of dreams, the bread of life. Scag is twelve oldbucks a bag, Frisco Push goes for twenty a tab,

but the Free-Vee will freak you for nothing...the dream machine runs twenty-four hours a day...but it runs on New Dollars, and only employed people have any. There are four million others, almost all of them unemployed, south of the Canal in Co-Op City. (715)

Richards lacks access to even basic human health services, and his desire to secure medical treatment for his gravely ill daughter compels him to risk his life by competing on *The Running Man*. A decade before MTV's *The Real World* became the first hugely popular non-scripted television show on cable television, King was speculating on what the future of television might resemble in the twenty-first century:

"At any rate, you're here," Killian said, continuing to smile his cold smile. "And next Tuesday you will appear on *The Running Man*. You've seen the program?"

"Yes."

"Then you know it's the biggest thing going on Free-Vee. It's filled with chances for viewer participation, both vicarious and actual. I am executive producer of the program."

"That's really wonderful," Richards said.

"The program is one of the surest ways the Network has of getting rid of embryo troublemakers such as yourself, Mr. Richards. We've been on for six years. To date, we have no survivals. To be brutally honest, we expect to have none." (744)

Television's de-humanizing capacity stands at the heart of King's criticisms on how entertainment exploits people, distilling the authentic human experience into simplistic (the categorizations of "troublemaker" or "survival") and grotesque caricatures. Richards, however, is a perceptive and three-dimensional character. He enjoys reading, has a high IQ, and eschews the Free-Vee whenever he can. He clearly understands that his life is worth less than nothing to the wealthy minority living north of the canal, although his inability to provide for his family forces his hand. In a telling conversation with his wife, Sheila, he admits, "I think I'm in here. Really.

They can't cut many more guys because there's too many shows. There's got to be enough cannon fodder to go around" (King 737).

The Running Man is a brutal story with a redemptive third act. In the introduction to the 1986 trade paperback of The Bachman Books, King admits that he wrote the novel in a feverish period of just seventy-two hours. He calls the effort indicative of an artistic energy he could only dream about, even a few years after its first publication, and that energy of disgust, anger, and indignation is palpable on almost every page of the tense novel. King skewers the television industry, from the banal mimicry of its programming to the dehumanizing ethics of its executives; in so doing, he uses art to express his views on the saving power of writing and the importance of reading that constitute a vital lesson at the creative center of his instructional text On Writing: A Memoir of the Craft:

Once weaned from the ephemeral craving for TV, most people will find they enjoy the time they spend reading. I'd like to suggest that turning off that endlessly quacking box is apt to improve the quality of your life as well as the quality of your writing. And how much of a sacrifice are we talking about here? How many *Frasier* and *ER* reruns does it take to make one American life complete? How many Richard Simmons infomercials? How many whiteboy/fatboy Beltway insiders on CNN? Oh man, don't get me started. Jerry-Springer-Dr.-Dre-Judge-Judy-Jerry-Falwell-Donny-and-Marie, I rest my case. (148-9)

Separated by almost a quarter of a century, *The Running Man* and *Cell* share a kinship in their depictions of cultures enslaved by popular communication technologies. They depict a future in which humanity has become intellectually and identificationally impoverished by its umbilical dependence on a cultural imperative demanding that we gaze into our technology to re-affirm our very humanity. And, as in Carpenter's film, these texts illustrate how communicational paradigm shifts can contribute to the loss of collective autonomy and control.

These anxieties are explored at great length in Sherry Turkle's 2011 study *Alone Together: Why We Expect More from Technology and Less from Each Other*. Turkle's work explores the psychological implications of our collective dependence on computers, robotics, and other forms of thinking machines. The piece is filled with first-person accounts of deep and pervasive loneliness, and the promise of connection that exists, however fleetingly, in the presence of technology. For King, smartphones are the conduit for the dissolution of a culture. For Turkle's subjects, however, they represent a lifeline in an age of collective isolation. She writes:

We romance the robot and become inseparable from our smartphones. As this happens, we remake ourselves and our relationships with each other through our new intimacy with machines. People talk about Web access on their BlackBerries as "the place for hope" in life, the place where loneliness can be defeated. (3)

And yet, as Turkle notes in her chapter "No Need to Call," these same technologies are altering human interaction in ways that seem antithetical to genuine connection. In speaking with a subject named Hugh, she notes that one-to-one discussion can no longer be concerned with the trivial or mundane. "They're disappointed if I'm, like, not talking about being depressed, about contemplating a divorce, about being fired... You ask for private cell time, you better come up with the goods" (Turkle 204). In another passage, interview subject Tara laments the inability to discuss anything of a sensitive or personal nature orally. For Tara, digital textuality has become the only outlet for the genuine emotional expressions that once came naturally to her. She can only articulate herself when her "self" is remediated through the machine; over time, this remediation becomes more than just a compulsive behavior—it becomes her, and it represents an important aspect of how she experiences the world, and how her social group grows to experiencing her.

Tara's communicative incarceration, so to speak, reflects sentiments that Turkle explores in her 2012 TED Talk, "Connected, but alone?":

The best way to describe it is, I share therefore I am. We use technology to define ourselves by sharing our thoughts and feelings even as we're having them. So before it was: I have a feeling, I want to make a call. Now it's: I want to have a feeling, I need to send a text. The problem with this new regime of "I share therefore I am" is that, if we don't have a connection, we don't feel like ourselves. We almost don't *feel* ourselves. So what do we do? We connect more and more. But in the process, we set ourselves up to be isolated.

That isolation is a terrible consequence of the willful cessation from the natural world, and one that seems to gnaw at the core of what it means to be a social creature.

The conclusion to Turkle's 2011 book, entitled "Necessary Conversations," includes an important observation on the future of our relationship to textuality and digital media. We may have grown up with the Internet as a critical component of our lives, but the Net is not itself a mature technology. We are still in our infancy in terms of our engagement with it, and we still have time to correct our individual and collective courses in the event that we bet high on the promises of authentic connection that can't be fully satisfied with technology while betting low on the human communicative traditions that are the hallmarks of our species (Turkle 294).

While technohorror often engages with concepts of how communication technologies possess the capacity to contribute to the waning of the self, it also speculates on what the future might resemble for a world in which human populations are expanding exponentially while simultaneously living longer. These circumstances present unique challenges for both our species and the planet. Individuals can always modify their behaviors and their orientation to the natural world, of course. Even if one refrains from overtly sanctioning the depraved entertainments imagined in *The Running Man*, for instance, one can always choose not to watch, just as one can make a concerted effort to privilege face-to-face contact over digital connection.

But a pervasive powerlessness also extends into our reconciliation of medical technology's compulsion toward extending human longevity and the undeniable fact that the world's natural resources are finite, for these are our present circumstances. While we can make actionable changes at the personal level in how we live, the realities of population growth and shifting age demographics are much more difficult to manage. How we live together harmoniously, how we grow together productively, and how we die together meaningfully are some of our most pressing concerns, dealt with both in our daily lives and in our works of art.

Navigating the Paradox of Progressive Science and Natural Aging

I position stories of diminished cognitive capacity at the apex of technohorror because the loss of one's identity represents a potent distillation of some of the genre's most germinal fears: the quiet apocalypse of the self, the raw apprehension concerning the future's uncertainty, and the creeping dread of personal mortality that can haunt the aging process. In recent years, novels such as Mathew Thomas's We Are Not Ourselves and Emma Healey's Elizabeth is Missing have explored the subjects of dementia and Alzheimer's Disease to great depths; films such as Adam Robitel's chilling *The Taking of Deborah Logan* (2014) go so far as to juxtapose the symptoms of these conditions with terrifying supernatural manifestations, literally illustrating a usurpation of the human spirit and a brutal reconfiguration of personal intellect. These are dark and resonant fictions, of course, and they lurk in the shadowed corners of the human psyche, surfacing in those disorienting moments when we struggle to put a name to a face or recall a simple task from our daily to-do lists. But the scientific truths that echo throughout these stories can be equally unnerving, for current medical research now reveals troubling insights into how the mind functions (or malfunctions) in advanced age during an era in which we are living longer than at any other period in human history.

The demographic landscape for navigating subjects related to intellectual atrophy in the United States of America appears daunting, both in terms of the sheer number of Americans living longer and the earlier ages at which researchers now believe that cognitive decline begins to manifest itself. In terms of the former, Caroline N. Harada and the co-authors of the study "Normal Cognitive Aging" note that the number of Americans over the age of 65 will more than double in the next few decades, increasing from 40.2 million in 2010 to 88.5 in 2050. This is a staggering number of aging adults within a population segment that I hope to live long enough to join in 2042. This presents both a unique set of challenges and a critical opportunity for some clear-eyed introspection for our species because we are also gaining a better understanding of when mental decline begins; in terms of the latter, these results are not encouraging.

European researchers recently released stunning findings on cognitive decline in an important segment of the Whitehall II study, a comprehensive analysis of the connections between socioeconomic status, stress, and cardiovascular disease ("About Us"). Prior to the release of the study's findings, it was widely believed that evidence of mental decline most commonly emerges around the time that we enter our sixth decades of life. Researcher Archana Sing-Manoux and her team, however, found that "there was a 3.6% decline in the mental reasoning of men and of women aged 45 to 49. The process appeared to have speeded up in the older age groups. Men aged 65 to 70 have a decline of 9.6% while women fared a little better, at 7.4%" (Boseley). With more than 10,000 participants, the study represents an impressive level of focus on how our minds function into advanced age. The authors of the report go so far as to call the study of cognitive attenuation one of the largest global public health challenges of the twenty-first century, as the percentage of aging adults is now rising exponentially throughout the world, and not only in the so-called "developed" nations.

Oates's epigraph seems particularly prescient, for it is the loss of personal identity associated with the loss of meaning that strikes me as the greatest affront to the modern human condition. To experience a disconnection with the self transcends the terror of physical degeneration, and the insidious nature of that overall decline can be deeply unsettling, on both a moment-to-moment and a day-to-day basis. The processes of cognitive diminution are, after all, the source for one of our most prominent embodied metaphors—the "losing of one's mind." Research indicates that many of these changes occur gradually, chipping away at the human spirit while we remain uncomfortably cognizant of their tolls on our abilities to communicate, learn, and gain pleasure from our environments and activities.

Memories structure the essence of personal identity, from the earliest recollections of childhood and family through all of the triumphs and setbacks that inevitably form the arc of a human life. The concept of memory, or "the ability to retain or store information and retrieve it when needed" consists of three categories, including immediate recall, short-term memory (spanning durations lasting from mere seconds to multiple days) and long-term (remote) memory (Ebersole et al. 550). Maintaining the capacity to call upon the lessons of our past by accessing each of these categories is, of course, a critical function of the brain, necessary for both making our way in the world and growing personally and intellectually as we age.

Two primary types of intelligence, crystallized and fluid, describe the general cognitive features of how we experience the world. Crystallized intelligence (which includes such intellectual domains as vocabulary maintenance and general knowledge) is formed through well-practiced routines; for those fortunate to experience normal cognitive aging, crystallized intelligence actually improves over time, even well into the final years of human life. Fluid intelligence (which includes memory, psychomotor skills, and processing speed, among other

abilities) generally peaks late in the third decade of life before slowly declining with every passing year (Harada et al.). These are very important findings. They shed useful light on when medical interventions for cognitive disorders might be most beneficial for the patient, and they foretell some potential challenges for a future in which "the 85-and-over population is projected to increase 351 percent between 2010 and 2050" ("Living Longer"). More than at any other time in human history, our species better understands the science of aging, the importance of learning as a cultural practice in advanced age, and the myriad changes that the body endures in the last stages of the human lifecycle. This increased understanding represents a bit of a public-health conundrum, however, when juxtaposed with broader American cultural views on aging and mortality. In the second chapter of *Approaching Death: Improving Care at the End of Life*, for instance, the U.S. Institute of Medicine's Committee on Care at the End of Life notes the trio of conditions that seem to have inhibited our collective understanding of what a natural lifecycle—which includes a healthy approach to death and dying—should look like:

...the committee's experience with various health care systems and its review of comparative analyses points to the influence on end-of-life care of an actively interventionist medical profession, a deeply ingrained public philosophy of individualism, and a general American unwillingness to accept limits—including aging and death.

Overall, a "technological imperative" seems to characterize medical practice, including care of the dying. The result of this medical activism, some argue, can be tragic. [Daniel] Callahan has, for example, described "an unwillingness to let nature take its course" that often leads to an impersonal and unwittingly cruel "death in a technologic cocoon." (Field and Cassel)

The authors create a compelling case for the need to place stronger emphasis on the cultural and social aspects of end-of-life deliberation. These are critical subjects, of course, because they explore the structures and institutions of culture across a variety of important public-health contexts. By affirming their importance and reflecting on their consequences for aging

populations earlier in life, we can potentially improve the transition into the final stages of the human lifecycle by demystifying the specter of human mortality. Speculative fiction has wrestled with subjects related to drastic changes in population growth, mortality, and the scarcity of natural resources for years, with many works of technohorror providing illuminating glimpses into grim environments and draconian public policies.

William F. Nolan and George Clayton Johnson first published the pithy, perceptive Logan's Run in 1967. Set far in the future, the novel depicts a world in which human longevity is capped at a mere twenty-one years of age. The story's so-called "citizens" carry a crystal flower embedded in their palms, and it glows "sun yellow" in the first seven years of life, then "electric blue" in the interim period and, finally, "warm blood-red" in the last seven years before blinking into terminal blackness on the Lastday. Citizens lead decadent, hedonistic lives inside a domed city before willingly reporting for "sleep" in their final hour. It is a keen, depressing text whose central conceit—forced mortality in the interests of population control—proposes a dire solution to the scarcity of resources. The story's eponymous protagonist works as a Sandman, hunting and eradicating those refusing to report to the sleepshops before refusing his own death on his Lastday. The authors foreshadow Logan's rejection of the state-sanctioned limits on life in the early going, as he encounters a protestor distributing literature on the streets:

As Logan approached, the man held out one of the sheets. He accepted it.

REJECT SLEEP! RUN

IF THERE ARE ENOUGH RUNNERS THERE WON'T BE ENOUGH HOMERS. THERE WON'T BE ENOUGH DS MEN. IT IS WRITTEN THAT THE LIFE SPAN OF MAN IS THREE SCORE YEARS AND TEN, SEVENTY YEARS! DON'T SETTLE FOR TWENTY-ONE!

RUN! REJECT SLEEP! (7)

The authors deftly illustrate the importance of memorializing human meaning throughout the text, juxtaposing depictions of emotionless sexual gratification with authentic portrayals of human emotion and affection. In an important scene late in the story's second act, after Logan chooses to make a run to a safe haven called Sanctuary outside the city's borders, he and heroine Jessica are compelled by Box (a governing robot) to illustrate their humanity by engaging in a simple meaningful embrace:

Logan held Jess. This, too, was a house of glass—but how different from the frantic, empty pursuit of sensation in the houses of the city. There was a reality here, a meaning. Forget everything else; forget the twisted man-thing carving the ice; forget the Hell-huddle of convicts; forget Francis and Ballard and the maze and Sanctuary. But let this moment last. *Jess...Jess...*

"Done!" piped Box. "Behold!" he stepped back.

Logan reluctantly released the girl.

They faced *themselves*.

In stunningly wrought ice figures, shimmering with life, the artist had captured the form, the mood, the emotion of his models. The endless moment was there. Love. Passion. Beauty. All there. (Nolan and Johnson 64)

By reaffirming their humanity before a thinking machine, Logan and Jessica experience an epiphany: life and love hold the capacity to expand experience and memory beyond limits, into that "endless moment" that far exceeds the purpose or meaning found in twenty-one aimless, debauched years of the senses. It is a powerful moment within the text, and one in which the story's jaded antihero seems finally capable of understanding the human condition.

Logan's Run is a particularly aggressive allegory on the perils of population control. The absurdity of the work's premise—its juxtaposition of compulsory physical death at an age in which most researchers in the field of neuroscience now view adult cognitive life as only

beginning to enter into full bloom—represents a literary wake-up call for thinking about what society might resemble in a world of scant resources.

Technohorror has a propensity for illustrating visceral speculations of life in overpopulated settings. Harry Harrison's 1966 novel *Make Room! Make Room!* explores the barbaric vagaries of overpopulation in a 1999 setting in which the world's population climbs past seven billion (the United Nations estimates our current global population at 7.5 billion). The book became the source material for Richard Fleischer's infamous 1973 cannibalism allegory *Soylent Green*.

Not all of these dystopic texts cleave to the dangers of expanded populations. Alfonso Cuarón's powerful film *Children of Men* (2006) explores a near-future world in which infertility threatens humanity's existence. It's not such a far-fetched plot premise. The Chinese government, now acknowledging a potential future imbalance in their working population's ability to support the country's elderly, relaxed its thirty-five-year restrictions on procreation in 2013. Despite the change in the one-child law, which is still regulated by China's National Health and Family Planning Commission, tens of thousands of hopeful couples are still legally unable to expand their families, causing pervasive concern and inequality within the country:

Recent headlines in the Chinese press suggesting the possibility of a two-child policy confirms that the government still doesn't get it. Having and raising children are basic freedoms to which all citizens should be entitled. They should not be arbitrarily denied or diminished, nor should they be manipulated in the name of a country or group. (Qing)

While many of these works of technohorror, dystopic in their depictions and critical in their commentaries, feature deeply sardonic narrative elements, the simple truth of humanity's future is that our population is growing exponentially and we are living longer. The international arms race to expanding mankind's physical and biological longevity is in full swing, and we can only

hope that the research into maintaining cognitive viability soon catches up and holds pace, lest we find ourselves in our final years as living embodiments of Howard Fornoy's "foals and dumbbels."

Toward a Healthy Approach to Life and Longevity

How best to move forward in our deliberations on these complex subjects? It seems that some honest self-examination is in order—both for our species and for America. A clear disconnection exists between our collective attitudes about aging, death, and dying and our individual wishes for how we might be treated at the end of life. Steve Kroft's 2009 60 Minutes report "The Cost of Dying" notes that the vast majority of Americans would like to spend their last days at home, and yet 75% of our population dies in a nursing home, assisted-care facility, or hospital. In that illuminating report, Kroft interviews Dr. Ira Byock, a physician at the Dartmouth-Hitchcock Medical Center, who offers this astute characterization of our current collective approach to end-of-life care:

Dr. Byock leads a team that treats and counsels patients with advanced illnesses.

He says modern medicine has become so good at keeping the terminally ill alive by treating the complications of underlying disease that the inevitable process of dying has become much harder and is often prolonged unnecessarily.

"Families cannot imagine there could be anything worse than their loved one dying. But in fact, there are things worse. Most generally, it's having someone you love die badly," Byock said.

Asked what he means by "die badly," Byock told Kroft, "Dying suffering. Dying connected to machines. I mean, denial of death at some point becomes a delusion, and we start acting in ways that make no sense whatsoever. And I think that's collectively what we're doing."

Byock's observations seem to mirror current public sentiment. A 2013 survey by the Pew Research Center reports that two thirds of Americans agree that there are some situations in

which a patient should be allowed to die if suffering from a painful or debilitating illness. I share this view, and I voted accordingly in my home state of Oregon in 1997 when ours became the first state to create a legal path toward a dignified death (California, Colorado, Washington, and Vermont have since created similar laws). Medical science illustrates a tremendous capacity for enriching our lives and keeping us healthy and vital. By all means, we should embrace much of what it has to offer while maintaining a clear perspective on the realities of the human lifecycle as well.

Technology's undaunted forward march has profoundly changed the way humanity considers itself in the twenty-first century, reshaping our understanding of the natural world, our physical bodies, our developing minds, and our professional identities. In terms of that last element, Dreyfus and Kelly explore the work of the wheelwright at the conclusion of the nineteenth century in the illuminating conclusion to *All Things Shining*. In so doing, they illustrate how professional meaning and personal identity were once carefully cultivated through the ability to make sense of keen observational data, knowledge and experience, and the "sacred dimension [of] craftsmanship" (210). The authors explore a text written more than a century ago by woodworker George Sturt, who writes poetically about the unique nature of raw materials (the wood they shaped), the distinctive puzzle at the center of every new job, and the innate connection between the woodworker, the forest, and the natural world. It represents a rich exploration that seems philosophically appropriate to some of the issues attendant to our collective thinking about aging, death, and dying—particularly here in the United States of America, where these topics are less frequently discussed. The authors write:

Sturt's account establishes a rich and appealing notion of skill. In place of the technical proficiency of an isolated and autonomous individual, Sturt's craftsman exists entirely in relation with his domain. Like any good relationship, each side brings out the other at its best. It is because the craftsman is an intelligent

observer of wood and not a ruthless and unintelligent machine, that the wood can reveal to him its subtle virtues. But it is because the wood has these virtues already that the craftsman can cultivate in himself the skill for discerning them and ultimately can come to feel reverence and responsibility for the wood and where it lives. There is, therefore, a kind of feedback loop between craftsman and craft: each jointly cultivated the other into a state of mutual understanding and respect. We have seen the name Aristotle gave to this dual cultivation of craftsman and craft. He called it *poiesis*. (211)

In the remainder of what promises to be a fascinating century, our species must better come to grips with the *poiesis* of the human condition. It is because humankind is an intelligent observer of aging and the lifecycle that she is able to recognize death's subtle virtues, which include affirming the sacred nature of life in the context of meaning. As Oates observes, *all* deaths carry meaning, although this is a significant lesson whose importance America is still coming to terms with. Byock discusses the reality of our collective cultural circumstances as we approach the subject of death in the twenty-first century:

"This is a hard time in human life. But it's just a part of life," Byock said.

"Collectively, as a culture, we really have to acknowledge that we're mortal. Get over it. And start looking at what a healthy, morally robust way for people to die looks like."

His informed opinion seems validated by the shifting sands of how we prepare our species for the complexity of technological, scientific, and medical influences on the mind and body in the twenty-first century. The University of North Florida, for instance, now offers a popular course of study in its health department specifically addressing the social, ethical, physical, and moral complexities of death and dying. UNF's students are learning a variety of important skills in addressing these subjects at a critical moment here in Florida, which seems to be ground zero for these cultural transitions because of its status as a haven for retirees.

Technohorror is marvelously adaptive in thinking about how we move into the future. In the examples discussed in this chapter, it does so in its exploration of how our communication technologies are changing our sense of personal identity, and how our medical technologies are forcing us to consider what life (and death) will look like in an increasingly cramped, aging global community. There will be no deadly, desperate game shows in the near future, of course. There will be no age suppression or forced euthanasia. These are merely the speculative purviews of technohorror, and those now engaging with such questions provide important avenues into the saving power of the work of art.

But that doesn't mean that changes—many of them substantial—must be made for both the national and international populations. We have to make critical collective choices about how we interact with our aging loved ones, how we maintain our cognitive faculties into expanded longevity thresholds, and how we allow our technologies to alter our connection to the world and to the skills and attributes that define us as individuals. The time is ripe for having these discussions with greater frequency inside of our families, our nations, and as a species. We will conclude this study with a look toward considering solutions for these topics and speculating on the future of technohorror as a critical artistic domain.

PROGRAMMING NIGHTMARES: TECHNOHORROR AND LIFE IN THE TWENTY-FIRST CENTURY

Technology has an innate capacity for amplifying our understanding of human actions, beliefs, values, and concerns. This is an obvious reflection, of course, and one that has been elegantly and thoroughly supported in such influential texts as Walter Ong's *Orality and Literacy: The Technologizing of the Word*, Marshall McLuhan's *Understanding Media: The Extensions of Man*, and Lewis Mumford's *Technics and Civilization*. As a phenomenon with both cultural and material facets, technology illustrates this capacity for amplification at either end of its complexity spectrum. It surfaces, for instance, in our reliance on such simplistic machines as the mechanical switches inside the keys that I just tapped to digitally process this sentence; it also emerges in our dependence on the sophisticated computers housed in Microsoft's datacenters in Quincy, Washington. These variations in purpose and utility paint a precise picture of its role in our lived experience, for technology is a powerful and pervasive cultural force that is forever both near at hand and out of reach.

As a species, we intuitively recognize technology's many effects on our daily activities, even if we only rarely acknowledge their consequences in actionable or articulate ways. This willful lack of self-awareness and the relative scarcity of meaningful reflection on the subject may very well constitute a collective blind spot for our species as we advance into the twenty-first century together. When it comes to reflecting on technology's capacity to shape, alter, and redefine human consciousness, the old adage *it bears repeating* is, in this case, much more than a simplistic cliché. Collectively, it may even represent something of a lifeline for young people now coming of age in a world in which such subjects as artificial intelligence, the de-natured self, global climate change, and posthumanism are increasingly entering into public discourse.

In the interview that he gave for this project, author Ken Liu notes that technology "by itself is neither good nor bad; it simply magnifies the human capacity for both." Liu advances an astute and too infrequently expressed view; technology's essence lurks within Martin Heidegger's philosophical enframing apparatus, altering our orientation to each other and to the natural world in both subtle and profound ways on a daily basis. Fortunately, literature remains a productive artistic proving ground for experimenting with and commenting on these alterations. In her perceptive essay "On Technology and Humanity," literary scholar Dr. Carol Colatrella notes the intrinsic connections that have long existed between technology and the humanities:

Printing, publication, transportation, and other technologies shape the conventions of literary genres and the structures of particular works. Many literary texts describe, celebrate, and criticize technology on the basis of humanist concerns related to social organization, politics, or psychology. Human curiosity and ambition to exercise power over nature appear in narratives that have become touchstones in modern culture for their delineations of how the human and the technological meet. (9)

Recognizing, acknowledging, and negotiating those meetings are important components of technohorror's saving power. The arguments that I have advanced in this project illustrate the many ways in which artists working within the field are both capitalizing on emerging technologies while simultaneously critiquing their influences on the depth, shape, and texture of our selves, our cultures, and our species. Throughout humanity's long history, cultivating this garden of technocriticism has been a common (and healthy) cultural practice, taken up periodically by the scholars, theorists, educators, clergy, and other monitoring orators of their corresponding eras. From Plato's ancient text *Phaedrus* (360 BCE) to the contemporary philosophical study *All Things Shining: Reading the Western Classics to Find Meaning in a Secular Age* (2011), by Hubert Dreyfus and Sean Dorrance Kelly, we are privy to a host of keen observations on how technology's essence continuously modifies the human experience. An

important objective of this study has been to shed light on these subjects through the prism of the horror narrative—an artistic curiosity that, until roughly the last half-century, has been commercially disregarded and critically marginalized as having little of value to say about authentic human concerns. By contextualizing various technologies (alphabetic writing, the offset printing press, telegraphy, radio, telephony, photography, film, television, and electracy, for instance) within an historical framework and critiquing their effects on human consciousness over time, our species has benefited from the ability to take the long view in our responses to technology's starring role in the story of our species. My aim throughout the course of this study has been to immerse myself in a body of texts capable of affording me a clearer perspective of that long view. It is a useful (and fortunate) side effect of this line of inquiry that I now also have a much stronger philosophical understanding of my orientation to myself, my family, my community, and the natural world.

To quickly revisit this study's architecture, the first chapter maps a survey of influential horror texts onto an historical taxonomy to explore the development of the literary subgenre of technohorror—a domain characterized by unsettling narratives marked by the qualities of mundanity, plausibility, and surprise. The second chapter explores a critical timeline of textual production in the horror field to support the claim that horror artists have a long and rich heritage of working at the front of the creative vanguard, positioning them well to utilize art in advancing some of the sharpest statements about what it means to be human in the twenty-first century. Folklore, a formative field located at the heart of the human tradition, is examined in the third chapter to advance the optimistic view that digital technologies are *not* expunging some of our most cherished cultural activities, such as sharing spontaneous narratives and communicating more broadly through ritual, symbolism, and allegory. If anything, these technologies are

proposing productive new spaces in which folklore can take root and flourish. The fourth chapter explores a trio of texts in its assessments of how contemporary writers are resolving some of the philosophical complexities in the increasingly prominent dichotomies of the born/made, the natural/artificial, and the organic/engineered, particularly as these oppositions contemplate the degeneration of the human body. The fifth chapter then examines works situated at technohorror's apex in its discussion of the loss of cognitive function and personal identity within cultures presently pushing the boundaries of human longevity.

In this final chapter, I aim to create a compelling case for technohorror's importance as a critically significant artistic domain while also enumerating the importance of striking a productive balance between the material traditions of the past and the digital promises of the future.

Interview Findings and Assessing Horror in the Twenty-First Century

An essential observation at the heart of this research project asserts that changes in technology alter the very nature of our interactions with each other, our environment, and our cultural institutions. As noted throughout this study, many of the hallmarks of life in the twentieth century (pay telephones and landlines, travel agencies and physical boarding passes, encyclopedias and newspapers, maps and atlases) have been either thoroughly remediated or replaced altogether by their digital counterparts. Some of these same alterations can be felt at the level of the content located inside of the stories that we tell. How has technology's forward march changed the complexion of those narratives seeking to provoke fear, fright, and anxiety in contemporary audiences? I return a final time here to the responses of those working in the industry in an effort to answer that question.

"But I fear—and fear is the right word—that the twenty-first century promises vast changes in the way we define and understand what it means to be a human being," says Dr. Dale Bailey, notable horror author and professor of English at Lenoir-Rhyne University in North Carolina. He continues:

We are already digitizing and quantifying our experience—take the ubiquitous Fitbit. I'm sure virtual technology will become increasingly sophisticated and that much of our lives will move online, or into those technologies, whatever they might look like, [and] that indeed it's already happening as I watch my students spend more time online using social media than they do interacting with their peers in, what?, more conventional ways? And I think it's only a matter of time before such technologies colonize the body. Whatever humanity looks like a hundred years from now (assuming we're still around), it will look very different than it does now. And the effect will only become more pronounced as time continues. I think we're cavemen, and we're about to evolve—maybe that's what you mean by posthumanism, but whatever you call it, I think it's pretty scary.

The inherent uncertainty in the complexion of humanity's future is a persistent anxiety that surfaces both as subjects within our stories and among the responses shared by many of this study's interview respondents. In an acknowledgement of technology's gradual intrusion into our daily lives, however, some writers wonder if we aren't *already* living in a period of posthumanism. Kij Johnson, award-winning author and professor of creative writing at the University of Kansas, says:

I wonder sometimes whether we are already posthuman in the same way fiction became postmodern. Postmodernism was the moment in fiction when it began (again) to stand outside itself and interact with its intentions, instead of sustaining the modernist unironic transparency. I can't speak to the world as a whole, but among the (largely privileged) communities I'm currently a member of, very few of us exist free of existential tensions. We're not people living lives, we're people thinking about the lives we're living. Advertising, aspirational or cautionary entertainment, the endless self-reflection (however shallow) of social media—are all forcing us toward ironic detachment from our selves.

Johnson's insights into ironic detachment and our alienation from authentic human experience introduce subjects that will be revisited in greater detail in the final passages of this

study. On the more visceral and immediate concerns of how horror will evolve in the near future, Dr. Tony Magistrale, professor of literature and film studies at the University of Vermont, suggests that international terrorism will continue to feature prominently in the field:

No question that recent horror has centered on a post-9/11 response. Because horror art works subliminally, it provides the perfect place for expressing our unresolved anxieties about terrorism, Muslim xenophobia, and American global imperialism. *The Cabin in the Woods, The Mist*, the torture porn genre, *Cloverfield*, these are all films that use either 9/11 and/or American misadventures in the Middle East as subtexts for the horror that is unleashed in each particular film. Audiences are still "looking to the skies" in many of these films, and the horror they anticipate in unsettling portraits of falling skyscrapers and sudden breeches in rationality is a sobering reflection of a society reeling from terrorism, without and within. I suspect the 9/11 impact has not yet expended itself.

These germinal fears—the loss of self, family, community, and nation—are timeless. They represent critical elements of horror's considerable appeal in their ability to incite emotional responses. Editor Ellen Datlow, winner of five Bram Stoker awards for her work as editor of an exhaustive catalog of chilling anthologies, argues that such important subjects will *always* form the touchstones of the genre:

... [horror should] provide a sense of unease. Disturb and unsettle the reader. The same basics that disquieted the reader over the past hundred years are the same that will disquiet the reader in the future (not scare, scares are rare).

Fear of death, the dark, mutilation, loss of control, loss of loved ones. Both physical /monstrous and psychological/personal have always been types of horror and will remain so. That's what horror is. The things that people fear don't change, ultimately. The trappings may change but what humans fear doesn't change.

In his discerning glimpse into the genre's future, Haikasoru editor Nick Mamatas notes that, despite the current popularity of dystopic young-adult novels (Suzanne Collins's *The Hunger Games* trilogy and James Dashner's *The Maze Runner* series, for instance) and romantic horror (*Buffy the Vampire Slayer* and the Anita Blake stories) projects, it is impossible to predict which books and genres will break out with any real accuracy:

It's a fun, if silly game to tie this or that trend to this or that political issue. Nobody really knows what will take off—if publishers did, they'd publish many fewer books. It would be more like films; release five hundred a year in the hope that millions of people will see them. Publishing will still release hundreds of thousands of books a year in the hope that thousands will see them. The million-sellers are a tiniest sliver of the field.

Note the substantial difference in scale between Mamatas's characterization of films and books. The degree of cultural attention—measured in millions and not thousands—at least partially supports the theory that society is now situated on the far side of the Gutenberg Parenthesis. It is a sentiment that speaks to Angel Leigh McCoy's theories on how millennials will ingest horror art in the near future. The author, game designer, and editor of *Another Dimension Magazine* states:

My humble prediction: Over the next ten to twenty years, I don't see much changing in the horror genre. As the planet continues to suffer, we will continue to see many stories about apocalyptic events. I believe the horror genre will gradually evolve toward visual storytelling and away from novels. I don't see our millennial generation doing much reading, and the smart market will follow those trends. I expect those visuals will be comics, video games, movies, TV shows, and YouTube videos. Virtual reality is just around the corner, and so I can easily envision people wanting a more visceral experience of their horror stories, something books cannot provide as well.

These responses reflect recent changes in the entertainment landscape, the publishing paradigm, and audience needs and expectations. For some with strong attachments to the field, horror's critical, popular, and artistic trajectories have leveled off in the wake of these changes.

Dr. Michael Morrison, an accomplished writer and educator in the fields of literature and physics at the University of Oklahoma, expresses surprise at horror's relative stagnancy in the new millennium:

During the twentieth century, reader demand for fiction and film identified as "horror" seemed to parallel (more-or-less) public attitudes about the present and future (economic, political, social, etc.). Were that still the case, horror would currently be experiencing a boom of unprecedented proportions. That is not happening. Maybe this effect is market-driven (publishers often publish as

"fiction" novels that in the '80s and '90s would have been published as "horror"). Maybe it is a result of the diffusion of horror into mainstream [fiction] and, to a lesser extent, science fiction...It is perhaps worth noting that what the explosion of new forms of textual production has *not* done is to markedly expand the subject matter of horror. So few topics (if any) were taboo before these developments that little expansion seems possible. To conclude on a personal note: I find that I read much less horror fiction than I did, say, twenty years ago. New writers come into the field but I find a much smaller percentage of their work compelling. On the other hand, I encounter less horror fiction, because its modes of distribution are so diffuse. So when I encounter a new writer whose work really engages and excites me (say, Simon Kurt Unsworth), it's almost always by accident. The disappearance of Stephen Jones's best-horror annual will only make it harder to follow the field.

Reader advisor and curator at Monster Librarian Kirsten Kowalewski offers similar thoughts on recent dissonant changes in the horror field and audience tastes and preferences:

Something that has changed significantly since Monster Librarian started is that there really are no mainstream horror imprints. There are imprints that include horror in their publishing lineup, like Gallery Books or Angry Robot, but none (that I am aware of) that are solely devoted to horror (Permuted Press has partnerships with mainstream publishers, but they're the only ones I can think of). So that kind of opens up what writers can do and still have their work identified as horror. Something to think about is whether genre readers actually want horror writers to take risks. It may sound odd, but many of them look back to the time when they started reading horror and they want that same feeling they got at that time. I have at least one person waiting for the next John Saul or Robert McCammon to pop up and Dylan, the founder of Monster Librarian, was always on the lookout for killer animal titles from the 1970s. Many people who read genre fiction want more of the same. I do think that is opening up, though, as time passes and the books and authors people feel nostalgic about will be different.

Each of these respondents addresses aspects of digital dissonance that I have attempted to discuss in some detail throughout this study. The effects of digital publishing and Internet distribution on our entertainment and learning cultures are complex and ongoing, of course, and the conflicting views on the future of the horror field that are expressed here seem wholly in line with the inherent uncertainty of our progression into the twenty-first century.

Whatever the future may hold for these subjects, an inescapable truth with a fundamentally simple saving power lurks at the core of our most foundational horror narratives:

Existence is finite. In commenting on the intrinsic tonal qualities of our depictions of technohorror and the cosmic futility surrounding humanity's future, Liu says it best:

I wouldn't say I'm a pessimist though. In the long run, after all, the universe will end in heat death, and all life will fade into the great silence that awaits us all. That I think technology is more likely to bring about our end than our salvation does not make my view any more pessimistic than it is pessimistic to acknowledge that we all die. It's what we can do with technology to make the universe grander and more beautiful before the inevitable day of reckoning that makes the romance with technology so wondrous.

Recognizing the Dilemma

In the 2006 text Convergence Culture: Where Old and New Media Collide, media scholar Henry Jenkins writes perceptively about the many complexities of contemporary life. The Internet's meteoric ascension into its current position as the meta-medium for commerce, communication, and culture has had immeasurable effects on our species. Many of those effects have been positive, although some have altered life for the worse. As Neil Postman eloquently notes in Amusing Ourselves to Death: Public Discourse in the Age of Show Business, "every new technology for thinking involves a tradeoff.... Media change does not necessarily result in equilibrium. It sometimes creates more than it destroys. Sometimes, it is the other way around" (29). Digital dissonance reflects this principle in spades, and it does so in ways that insinuate themselves into our lives both gradually and exponentially. Jenkins adopts a particularly thoughtful stance in the conclusion of his text in asserting that these tradeoffs must become collectively recognized as serious cultural negotiations. Where Postman warns of the potential for "culture death" in his somber summation of television's effects on American discourse, Jenkins largely expresses optimism in acknowledging the Internet's egalitarian potential for inspiring participation, reinvention, and creativity.

It is certainly possible to create an evidence-driven argument that both views have merit. Dynamic hybridity now functions in ways that Jenkins foresaw a decade ago, when he predicted that producers, audiences, and artists would collaborate to "define the public culture of the future" (24). An instructive recent example of this phenomenon is evident in the chilling anthology of short films *The 3:07 AM Project. Vice* magazine and Warner Brothers, a pair of highly capitalized mainstream entertainment companies, worked with independent horror directors to create four unique and genuinely unsettling films that engage with various elements of technohorror. The 3:07 AM Project is an impressive example of contemporary artistic synergy. Directors Nacho Vigalando, Max Landis, Ti West, and Jason Eisener benefit from increased exposure and affiliation with mainstream media entities. Warner Brothers and Vice benefit from gaining a measure of independent credibility attendant to that group of artists and their fans while also vetting accomplished collaborators for future projects. The Conjuring (2013), both a profitable studio release and a critical success, benefited from an advertising campaign that pushed the film into knowledge communities that might have eschewed such fare on the basis of its Hollywood pedigree. On the whole, *The 3:07 AM Project* is an instructive recent example of the convergence ethos espoused by Jenkins throughout his study.

As noted in the third chapter of this project, an immeasurable number of captivating, content-rich vernacular webs have emerged in the discussion of critical collective issues. These communities, in which thousands of monitoring citizens are exploring art, politics, and contemporary life, represent a powerful mobilizing force for positive change. Those same principles of open access apply across the spectrum, however, and can often yield negative results in their dissemination of hateful and erroneous rhetoric. Therein lies the dilemma of our contemporary communications culture.

Consider this instance from the other end of the spectrum—from Postman's more cynical perspective. In the opening passages of the concise introduction to his study, Postman states: "As I write, the President of the United States is a former Hollywood movie actor" (4). His reference to Ronald Reagan is just one of dozens of examples he provides in advancing an inductive argument that entertainment (fluff) and not intellectual or moral substance (stuff) has, to our detriment, established itself as the ethos of our age.

A very real sense of symmetry emerges here. Three decades after the study's publication, an aging former television star is now the President-elect of the United States. Despite his many public business failures, his lack of political experience, and his long and well-documented history of making abhorrent and untrue statements about those he perceives as enemies, Donald Trump will lead the United States in just a few short months. I am loath to ponder what Postman might say had he witnessed the 2016 Presidential election, although I am fairly certain that he would point to our present digital-information environment as a contributing factor in Trump's victory. To underscore the demonstrably confusing relationship that many Americans now have with credible media and actionable information, Facebook CEO Mark Zuckerberg has conducted multiple press conferences in the aftermath of Trump's election victory to discuss Facebook's role in the outcome. While Zuckerberg claims that Facebook's content-distribution practices played no part in the election, numerous media critics and communications scholars feel much differently. In her illuminating NPR piece "From Hate Speech To Fake News: The Content Crisis Facing Mark Zuckerberg," Aarti Shahani notes Facebook's unique position in our present information culture:

Behind whatever controversy of the moment happens to be, there's a deep-seated problem. The problem is this: At age 19, the then-boy genius started a social network that was basically a tech-savvy way to check out classmates in school. Then, over the course of 12 years, he made some very strategic decisions that

have morphed Facebook into the most powerful distributor on Earth—the new front page of the news for more than 1 billion people every day. But Zuckerberg didn't sign up to head a media company—as in, one that has to make editorial judgments.

Shahani's comprehensive article outlines the myriad complexities Facebook is attempting to negotiate as the world's largest and most popular digital-content provider. That list includes dealing with false "news" stories made to resemble legitimate articles and sorting through heaps of doctored photographs and documents. With more than a billion users, Facebook must use subcontractors to moderate much of the content appearing on the platform, and those companies may not administer a consistent approach to moderation. Differences in cultural norms

(Facebook is the prototype for a modern global company) also play a role in which information is deleted and which is allowed to freely disseminate. Taken together, these challenges add up to a nightmare in terms of bringing consistency, credibility, and editorial vision to the world's most popular social-media platform.

Organizations such as Politifact and Stanford University's Web Credibility Project maintain important roles in the realm of public discourse for their activities in spreading awareness of the need for media literacy and the verification of credible information. The startling paradox at the heart of having access to more information than at any other time in human history while simultaneously being less informed suggests that our educational and behavioral responses lag far behind the rate at which the paradigm shift in our communications culture is taking shape. When such circumstances emerge, individuals, families, communities, and nations must make critical choices in order to take the corrective measures necessary to realize our full potential as a species. If the 2016 U.S. Presidential Election (accompanied by the disheartening stories of flawed information, voter apathy, and virulent bigotry that have surfaced in its aftermath) is a sign of things to come, then Postman's grim warnings of an electorate

clouded by the fogs of ignorance could well come to pass. In alluding to a foundational work of technohorror from almost a century ago, he says:

What I suggest here as a solution [rigorous media literacy education] is what Aldous Huxley suggested, as well. And I can do no better than he. He believed with H. G. Wells that we are in a race between education and disaster, and he wrote continuously about the necessity of our understanding the politics and epistemology of media. For in the end, he was trying to tell us that what afflicted the people in *Brave New World* was not that they were laughing instead of thinking, but that they did not know what they were laughing about and why they had stopped thinking. (163)

The election results have further exposed a series of stark and divisive rifts within American society. These are turbulent times, and they require a kind of wholesale healing above the kind that any purported economic salve can offer. In the final analysis, it will be a humanist approach that can best hasten that healing.

Will it actually happen? I would certainly like to hope so. I admire Antonio Gramsci's infamous quotation, taken from his prison journals that were written during his incarceration by the Italian Fascist regime in 1926. Gramsci purportedly scribbled this phrase in one of his notebooks: "Pessimism of the intellect, optimism of the will" (Rodriguez). The position seems to embody some of the tensions surrounding digital dissonance. Like Jenkins, I consider myself a critical utopian. It is critical, for instance, that we maintain a healthy and accurate perspective on the realities of our present social circumstances here in America while always attempting to push ourselves toward collective improvement, harmonious relationships, and a shared sense of purpose. We must collectively improve at becoming judicious monitoring citizens, for our inability to decode the flood of vitriol and subterfuge that proliferated in American media over the last eighteen months directly created our present circumstances.

And yet, I also feel a great sense of optimism about the future. I believe that the second portion of Gramsci's quotation can be realized through the healthy, productive, and humanistic

functions of authentic digital communication. I believe in the power of science and technology to improve lives, not only from a physical or medical perspective, but also in important behavioral and social aspects.

Fortunately, these are not mutually exclusive edicts, and each of us must make every effort to develop a healthy way forward for ourselves, our families, our species, and our planet.

Finding a Way Forward

In their enlightening essay "Lives Worth Living in a Secular Age," Dreyfus and Kelly enumerate the effects that the Global Positioning System (GPS) have had on the human experience. Theirs is a particularly salient case study, I believe, for it delineates the rapid changes that a culturally dominant technology (simultaneously distant and near at hand) has made on our material understanding of the world and our environment. Depending on your worldview, this rapid change is either the disruptive engine or the transformative heart of digital dissonance.

Like Postman before them, Dreyfus and Kelly argue that the basic philosophical tenet that technology exists to make hard things easier is a false premise, noting that "the improvements of technology are impoverishments as well" (213). The eternal process of developing, practicing, augmenting, and improving particular skill sets is one that provides meaning to our participation within certain esoteric domains. Expert guides—still revered in many cultures, though recently marginalized in ours—understand the world in ways that most do not. Like the wheelwright before a piece of raw timber or a gourmet chef with a cut of fresh salmon, the guide sees detail and nuance in ways that defy the senses to most of those outside of the domain. It is through that heightened sensory understanding that the guide takes meaning

from his or her craft. Dreyfus and Kelly argue that the GPS navigational device marginalizes those important and hard-won skills:

To navigate by GPS requires no sense of where you are, no sense of where you're going, and no sense whatsoever for how to get there. Indeed, the whole point of the GPS is to spare you the trouble of navigating.

But to lose the sense of struggle is to lose the sensitivities—to landmarks, street signs, wind direction, the height of the sun, the stars—all the meaningful distinctions that navigational skill reveals. To navigate by GPS is to endure a series of meaningless pauses at the end of which you do precisely what you are told. There is something deeply dehumanizing about this: it's like being the central figure in a Beckett play without the jokes. Indeed, in an important sense this experience turns you into an automated device the GPS can use to arrive at its destination. This is one of the ways the world can be, and at times it is the best the world can be. But to aim for this as an entire way of life is to lose touch with the skill and care, the reverence and awe, that are some of the moods that bring out human beings at their best. (214-5)

Anyone that has ever used a GPS navigational system for any extended period of time understands that the technology frequently malfunctions. The horror stories of GPS-related mishaps, many of them tragically fatal, are well-documented. But in the specific case of relying on the technology as a conduit toward the meaningful reunion between humanity and nature, some particularly heart-breaking examples stand out.

Fatalities in California's Death Valley National Park have been on the rise over the last fifteen years. In 2009, Alicia and Carlos Sanchez followed their GPS unit's incorrect route deep into a secluded corner of the park. Alicia Sanchez barely escaped the ordeal with her life, but Carlos perished there in the front seat of the family's car. As Tom Knudson writes in the article "Death by GPS' in desert," Carlos's death is not an uncommon occurrence:

"It's what I'm beginning to call death by GPS," said Death Valley wilderness coordinator Charlie Callagan. "People are renting vehicles with GPS and they have no idea how it works and they are willing to trust the GPS to lead them into the middle of nowhere."

"We expect it every summer," said Callagan. "It's actually more unusual to end up without any deaths. It seems like we have one or two every summer."

Like much of our contemporary digital infrastructure, GPS technologies rely on frequent and regular updates. Many of the fatalities in Death Valley can be directly attributed to navigational units that routed families down roads that had been closed or out of use for decades. In her NPR article "The GPS: A Fatally Misleading Travel Companion," Krissy Clark discusses Callagan's epiphany in discovering why so many visitors were becoming lost:

To explain, [Callagan] drives out to a lonely corner of the valley. A line pops up in the corner of my GPS screen. Supposedly, it represents a road about to intersect the one we're driving on. But looking out the window, there is no other road.

"That road there no longer exists. It's been probably 40 years, but somebody ended up driving on it because it showed up on their GPS," Callagan says.

These are rare and conspicuous examples, of course; far more often than not, GPS navigational units function just as they are intended. But that success rate does little to erase the sense that the technology both dehumanizes and deskills us the more frequently that we rely on it. Instinct and awareness. Intuition and caution. These traits are honed through our authentic interactions with nature, life, and the world. In commenting on the situational firewall that *should* exist before people decide to follow the advice of their GPS unit down a hot and lonely path, Callagan says that deep "down back in the brain, the common sense says, you know, this is not the wisest thing" (Clark). That nagging voice used to call out to us from inside of our own heads; now, it's becoming harder to hear over the robotic drone coming from the smartphone mounted on the dashboard.

This disconnection from our instinctual understanding of the natural world is a relatively recent development. In his informative study *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*, Richard Louv advances a compelling case for the emergence of the

"de-natured" child as a development that has arisen in just the last few decades. Louv's study contends that a variety of factors (including urban sprawl, parental fears of child predation, planned-community covenants and restrictions, and increased exposure to digital media) have drastically reduced the amount of meaningful time that children now experience in nature. In a salient passage demanding that we challenge our blind faith in following technology's course to the bitter end, Louv writes:

To increase your child's safety, encourage more time outdoors, in nature. Natural play strengthens children's self-confidence and arouses their senses—their awareness of the world and all that moves in it, seen and unseen.

Although we have plenty of reasons to worry about our children, a case can be made that we endanger our children by separating them too much from nature, and that the reverse is also true—that we make them safer, now and in the future, by exposing them to nature. (186)

This passage expresses an important component of the philosophical approach to parenting that my wife and I are now trying to practice with our children. My father's career with the United State Forest Service spanned more than four decades. He worked in forests in Utah, Colorado, and Oregon. As a young forester living in Pueblo, Colorado, he came to know the Pike and San Isabel National Forests in ways that few ever get to experience. In his off time, when others might have eschewed spending yet another day in the woods, he often took me and my sisters off-trail, using a compass and proprietary government maps to expose us to the abundance of flora and fauna that thrived in that section of the Rocky Mountains. We hiked, trekked, fished, and camped those wilderness areas extensively throughout my elementary-school years, and most of my resonant memories from childhood feature excursions spent outdoors and with my family. Deep and meaningful exposure to the natural world has been an important part of my life for as long as I can remember; I never knew any other alternative, so whenever I became distanced from nature for any prolonged period of time, the absence felt profound. That

connection to nature was a gift that my parents passed along to me and my sisters—a way forward in life that my wife and I are now trying to establish for our children. Six weeks after my daughter's birth, we brought her to our favorite place in Florida—the birding platform at the Round Marsh, located at the terminus of the Timucuan Trail here in Jacksonville's <u>Timucuan Ecological and Historic Preserve</u>. Since the time that she was first able to handle a mile without becoming winded, my daughter has hiked those trails hundreds of times. We have observed her personality emerge in those contexts in which nature has challenged her, and we have watched from afar as she uses her intuition and intellect to solve problems and overcome obstacles in her relationship with nature. She now has a keen interest in fishing and camping, and these are developments that we hope she will carry with her into her adult life as she navigates what seems, at times, like a very different world than the one we grew up in.

Part of our longing to expose her to nature is to ensure that she will come to know herself well. M.I.T. professor Sherry Turkle addresses the importance of this concept in the conclusion to her 2012 TED Talk "Connected, but alone?" In wrapping up her thoughts, she notes:

How do you get from connection to isolation? You end up isolated if you don't cultivate the capacity for solitude, the ability to be separate, to gather yourself. Solitude is where you find yourself so that you can reach out to other people and form real attachments. When we don't have the capacity for solitude, we turn to other people to feel less anxious or in order to feel alive. When this happens, we're not able to appreciate who they are. It's as though we're using them as spare parts to support our fragile sense of self. We slip into thinking that always being connected is going to make us feel less alone. But we're at risk, because actually it's the opposite that's true. If we're not able to be alone, we're going to be more lonely. And if we don't teach our children to be alone, they're only going to know how to be lonely.

Teaching our children to embrace the solitude of nature isn't difficult, but it takes effort. Parents need to carve out time to spend time with their children in regular, unstructured play outside and in the natural world. I have been asked before about the approach that my wife and I take to

parenting and our response always starts with this: Raise your children near a river and spend time with them in learning about the water. In my formative years, the John Day, Nehalem, Necanicum, Umatilla, Grande Ronde, and Columbia Rivers were the proving grounds for my personal growth and development. For my daughter, the Nassau Sound, the Round Marsh, the St. Mary's River, and the Matanzas River have provided her with the opportunities to better understand herself through her connections to the natural world.

Recognizing and cultivating the need for solitude is important, of course, but so is celebrating the important social gatherings that have come to identify and define the human experience. In Technics and Civilization, Mumford writes eloquently about the importance of the watering hole in early human cultures. The watering hole represents a communal nexus of information and stimulation that facilitated the exchange of news and ideas and allowed individuals the chance to connect and develop their communication skills. As plumbing technologies improved in the nineteenth and twentieth centuries and water was increasingly piped directly into the home, Mumford laments that steady withering of human connection that was lost in the process. New places for human socialization have replaced the watering hole, of course. An interesting level of symmetry is apparent in the contemporary practice of sharing news and folklore around the modern water cooler in many office contexts, for instance. But the sense that something is also lost in the process of progress can't be overlooked. In his insightful essay "Lewis Mumford: Technics, Civilization, and Media Theory," Robert Fortner writes of the necessity for maintaining important connections to the human traditions that are independent of technology's influences:

The reversal, the reconstruction of organic lifestyles, can only be achieved through nontechnocratic and nonscientific means: art, ritual, religion, myth, and identification of the inherent human needs of people. Mumford was not opposed to indoor plumbing, the extension of electricity, or the development of modern

means of transportation. But he did ask that, before any technical means of supporting human life and community are adopted, their ethics be examined, the basic subjectivity of science and technology be recognized rather than reified.

As media and mass communication continue to be ever more technologized, this is the value of Mumford's work to theory development: the long view, not an ad hoc response to every new issue that emerges as a result of technological change, the view that recognizes that the human psyche needs grounding in nontechnological thinking, which provides true understanding and gives meaning to every life.

Fortner's theories are materially reinforced in the educational philosophy of such institutions as Swallowtail School in Cornelius, Oregon. Swallowtail advances a Waldorf educational curriculum for its students, who learn experientially through a connection to nature and the environment. The K-8 school largely eschews digital technology in the classroom. Students spend every Monday outdoors, either working with livestock or cultivating food crops. Swallowtail encourages regular exercise in the form of its movement classes, understanding that children learn better when both their minds and their bodies are engaged. Children learn to knit in the first grade. They learn to crochet in the second grade. These activities help children develop tangible skills in problem-solving while learning perseverance and increasing self-sufficiency. Students are provided with full exposure to the arts and humanities at the same time that they are leaning math and science, an equal exposure to the human subjects that seems to be diminishing in a public educational system that now values a STEM curriculum above all other subjects.

While there are more than a thousand Waldorf schools in the United States, places like Swallowtail remain exceedingly rare. Because of their scarcity, it is absolutely critical that parents work with their children outside of our present institutional channels to build healthy connections with the natural world. I am optimistic on technology's capacity to become an important partner in reuniting children with the natural world. Despite a rash of negative

publicity since its July release, *Pokémon-Go* is a fine example of innovative thinking in getting our children out of the house and reacquainted with nature. I can't recall ever having seen so many young people hiking the nature trails at the University of North Florida (a dedicated pokestop for enthusiasts of the game), for instance, as I have since the game's release. This is a small change, to be sure, although certainly one for the better.

I hope these concluding thoughts and examples do not cast this study in a confusing light. The optimism inherent in the second and third chapters illustrates all that is possible through the transformative power of technology. The pessimism inherent in the fourth and fifth chapters illustrates a strain of critical caution that permeates much of technohorror and the kinds of stories we tell about what a future might look like in which humanity is distanced from its origins and environment. In their tonal variety, these chapters illustrate technology's paradoxical hold on our species. We seem irreversibly drawn to it at the same time that it alters our physical, spiritual, and mental compositions. Human life—our material, physical, second-to-second existence—is changing at a rate that humanity has never experienced before and might not be intellectually capable of processing in a healthy fashion. A nagging note of caution lingers in the back of my mind, as it does in the minds of such theorists as Mumford, Turkle, and Louv, that our species must take action to ensure that our connections to the natural world remain vital and sustainable. This is a critical objective that should begin in the home and with the family (whatever that unit's complexion) before emanating out into our schools, communities, libraries, cities, states, and nations. As a culture, we've bet high on the promise of digital technology; this is an error. It is not a grave miscalculation, mind you, but a potentially obstructive mistake nevertheless. If the ways in which we interact with digital texts are rewiring our brains and diminishing our intellectual connections to learning and the acquisition of knowledge, as scholars such as N.

Katherine Hayles (2012's *How We Think: Digital Media and Contemporary Technogenesis*) and Nicholas Carr (2011's *The Shallows: What the Internet is Doing to Our Brains*) theorize, then we would be wise to balance digital learning practices with corresponding levels of exposure to physical books, dialogic reading principles, and linear arguments. Make no mistake—I do not fear culture death, as Postman fretted in his important study. I do, however, fear a subtle diminution occurring in the quality of human material and sensory experience, a diminishing empathy for the natural environment, and a disconnection in the hallmarks of human development between our generation and those now entering life in the twenty-first century.

As Jenkins notes in his concluding chapter, emerging media technologies in particular are re-shaping our relationships to education, politics, entertainment, and citizenship. His concluding thoughts elucidate the potential for understanding digital dissonance from a positive view while also illustrating the pervasive pessimism that seems endemic to these new negotiations:

Media are read primarily as threats rather than as resources. More focus is placed on the danger of manipulation rather than the possibilities of participation, on restricting access—turning off the television, saying no to Nintendo—rather than in expanding skills at deploying media for one's own ends, rewriting the core stories our culture has given us. One of the ways we can shape the future of media culture is by resisting such disempowering approaches to media literacy education. We need to rethink the goals of media education so that young people can come to think of themselves as cultural producers and participants and not simply as consumers, critical or otherwise. To achieve this goal, we also need media education for adults. Parents, for example, receive plenty of advice on whether they should allow their kids to have a television set in their room or how many hours a week they should allow their kids to consume media. Yet, they receive almost no advice on how they can help their kids build a meaningful relationship with media. (259)

Jenkins's assertions here confirm the necessity for meaningful acknowledgment of the shifting communicational terrain on a more regular and productive basis. It is vital that, like the thousands of creative artists now writing, editing, and publishing works of technohorror, we

teach our children the importance of rewriting and reimagining those core narratives that speak most profoundly to the human condition.

Once again, some of the practices that I am advocating here for the growth and development of my family are the benefits of a generational inheritance. My parents paid me to write original short stories. They paid me to organize information coherently into family newsletters that were published and distributed at the holidays and in mailings throughout the year. We now do the same activities with our daughter, and I am sincerely hopeful that she feels at least some of the same joy and satisfaction that I have experienced as a fiction writer in her own life as she works on these projects.

Whether a product of circumstance or philosophy, my parents invested time and energy in instilling an ethic predicated on presence, connection, and tangibility in me and my sisters. As a family living on a single income in Pueblo, Colorado, we cultivated elaborate backyard gardens bursting with fresh produce and fertilized with cow manure that we hauled from the local dairy in the bed of Dad's old green truck. My mother pickled vegetables and made jams and preserves—some of them of a quality sufficient to win recognition at the Colorado State Fair. We camped and hiked the Sangre de Cristo and Blue Mountain Ranges as a family, and I fished the streams and rivers of Eastern Oregon almost weekly until I graduated from Pendleton High School in the mid-1990s. Now, it is our turn to take our children camping at Ft. Clinch State Park and Suwannee River Valley State Park. We often fish Florida's Intracoastal Waterway from our kayaks, and we've been fortunate to spend many thousands of hours together in the natural beauty of one of this country's most stunning environments.

Turkle, like Liu at the outset of this essay, succinctly advances an important call to action in an interview that she provided to Rachel Dretzin and Douglas Rushkoff in their revealing 2010 *Frontline* documentary *Digital Nation*:

Technology challenges us to assert our human values, which means that, first of all, we have to figure out what they are. That's not so easy. Technology isn't good or bad, it's powerful and it's complicated. Take advantage of what it can do. Learn what it can do. But also ask, "What is it doing to us?" We're going to slowly, slowly find our balance, but I think it's going to take time.

Turkle's views resonate with me. Materiality matters. Articulation, action, and authenticity matter. Meaningful reflection matters. Each of these qualities carries the potential risk for diminution within cultures that privilege networked connections over the human traditions that have marked our species for millennia. The trade-offs between technology and materiality are not the products of a zero-sum game. We can, and should, take positive steps to reconnect with the natural world in ways that will augment and enhance all of the other aspects of our lives—including our time spent online in digital communities.

Digital dissonance is the methodical and continuous extension of technology's essence to shape, alter, and refine human consciousness. In its dynamic qualities, it represents a bountiful garden of opportunity, engagement, and participation. Our species would be wise, however, to always maintain perspective on the fact that the fertile soil of the new digital paradigm is enriched by the nutrients of the *human* tradition.

APPENDIX A: INTERVIEW TRANSCRIPT, DR. DALE BAILEY

- 1) How have digital publishing technologies impacted your approach to the writing process? Have digital publishing methods altered the form (length, style, modality, or other) of the work that you submit for publication?
 - Digital publishing tech hasn't really impacted my writing process, nor have e-books altered the form of what I'm doing. What has happened is that it's opened enormous opportunities for publication that simply didn't exist when I started publishing twenty-five years ago (something like that, anyway). The online market is thriving, and online publication—for short fiction, anyway—has I think eclipsed the traditional markets in many ways. They certainly carry the same prestige (the best of them, anyway) and often pay more.
- 2) In your experience as an author, how does evolving modern technology inform your work as subject matter, and would you characterize the authorial view expressed in your work as generally optimistic or pessimistic concerning humanity's engagement with technology?
 - I have to dodge this question. I don't really write fiction that engages technology in significant ways. My science fiction tends to be backwards looking, employing the tropes of the genre's tradition in often nostalgic ways, and when I write horror, I also tend to work inside fairly limited conventions. I'm an old wine in new bottles kind of writer, I'm afraid.
- 3) How has digital technology impacted audience engagement with your work? Do you view social media engagement as important to the "work" of authorship in the twenty-first century?
 - Certainly, web-publishing is the primary place younger readers encounter my work in most cases. I think social media engagement is crucial—the primary way now for building an audience. I've seen it really boost the careers of many writers. Unfortunately, I have little interest and less success or skill in engaging it successfully. I'm kind of a Luddite, I guess. Hell, I still buy music more often than I stream it...
- 4) Your work, including such notable stories as "Death and Suffrage" and "Snow," deal with fairly classical stories of the monstrous and/or other depictions of the evolving human. How do you view posthumanism and/or transhumanism as impacting the human condition? What does the twenty-first century hold for our collective understanding of what it means to be human?
 - Yep, as I said above, I tend to work within a fairly classical genre tradition. I'm not much engaged in posthumanism and/or transhumanism—not sure I can define either with any accuracy, actually. But I fear—and fear is the right word—that the twenty-first century promises vast changes in the way we define and understand what it means to be a human being. We are already digitizing and quantifying our experience—take the ubiquitous Fitbit (or however you spell it). I'm sure virtual technology will become increasingly sophisticated and that much of our lives will move online, or into those technologies,

whatever they might look like, that indeed it's already happening as I watch my students spend more time online using social media than they do interacting with their peers in, what?, more conventional ways? And I think it's only a matter of time before such technologies colonize the body. Whatever humanity looks like a hundred years from now (assuming we're still around), it will look very different than it does now. And the effect will only become more pronounced as time continues. I think we're cavemen, and we're about to evolve—maybe that's what you mean by posthumanism, but whatever you call it, I think it's pretty scary.

5) What should effective horror fiction do for an audience? Which topics do you expect will be most unsettling or provocative for contemporary audiences as we progress into the twenty-first century?

I think the idea that horror fiction is designed to scare people is pretty simplistic. I can't remember really being scared by a work of horror since I was a kid (with the exception of The Blair Witch Project which, well, Jesus, man, that last shot!). I think horror fiction engages our anxieties, cultural and personal, in metaphorical ways that make them "safe" to experience vicariously. This is nothing new, of course—Aristotle was riding this bus a long time ago. But this is descriptive, not prescriptive. What should horror fiction do—I don't know and (I don't mean to be flip) and I don't much care. I write fiction and it does what it does. I'm sure other writers think about the effect they want their work to have, but beyond moving my readers, shaking them up a little, asking them to reconsider the way they view the world—well, that's what I have in mind, I guess. Nor do I feel that I can really predict what twenty-first century audiences will find unsettling. The loss of our humanity, as I describe it above, bothers the hell out of me. I think David Cronenberg (sorry that I keep referencing films instead of books or stories) was on to this stuff way before the rest of us, and I still find those early movies disturbing. But I think I'm in the minority here. I think our culture is embracing its transformations. We're on that train, man, and most people have bought their tickets.

APPENDIX B: INTERVIEW TRANSCRIPT, LISA INDIGO

1) May I please have (and use) your full name in citing your thoughts in the finished research project?

Yes, please use Lisa Indigo, and link it to my channel

2) How would you best describe the allure of the ASMR phenomenon? What is it that is making this emerging media subgenre so popular within Internet communities, and what do you enjoy best about creating in this field?

I think there are multiple allures. First, there are the core people who get the physical ASMR sensation. Second, there are people who use it to fill an emotional void (to feel like they have someone close), as there can exist the illusion of presence through ASMR videos (and immersive equipment can help with this). This is probably why personal attention videos are so popular. Thirdly, there is a fringe audience who watch it either for entertainment value, or as white noise for studying, etc. (like having the radio or TV on). It definitely fits different needs for different people.

What I enjoy most is how limitless the genre is. As a creative field, it's unrestricted.

3) You seem to have an active and supportive following. How has Patreon changed the dynamics (if at all) of your work? Is crowdfunding a viable (stable) path for generating income through creating media on the World Wide Web?

As long as you actively engage and interact with your following, it can definitely become a stable form of income. This is because you're creating a bond with your viewership, who also have a desire to give back, so it becomes symbiotic. It's a two-way street, but you have to be open and honest, and willing to be vulnerable. People see that, appreciate it, and become more willing to help you out.

And the income from Patreon has enabled me to upgrade my equipment, thereby increasing my video and quality, and I think, my viewership. It always amazes me how much my viewers want me to succeed, and are willing to support me when provided an outlet to do so.

4) Why do stories about vampires seem to resonate with audiences? What is it about that particular storytelling trope that seems so ingrained in popular culture?

I wouldn't describe vampires as a trope, as much as it is a subgenre unto itself. I explore different tropes within this subgenre, and again, different things appeal to different people. I also have several different archetypal characters, so there's usually something for everyone (i.e. the shy and nerdy girl, the femme fatale, the domineering bitch boss, the wild child, etc.).

The fascination with vampires goes back centuries, likely having started due to the lack of medical knowledge of what happens to bodies when they die. They've since been romanticized with Bram Stoker's novel, and now, I think, nowadays represent seduction,

corruption of the innocent, and escapism – because who doesn't want to be young and beautiful and have sex forever?

5) What does the future of ASMR horror look like, in your view? What should effective ASMR horror "do" in engaging with a given audience?

I think the popularity of ASMR horror is slowly growing, along with ASMR as a whole. These types of videos already engage with the audience through immersive tech, and by addressing the viewer as a character in the story/roleplay. These methods can be used to relax the viewer, or conversely, to deeply unsettle or even scare them.

APPENDIX C: INTERVIEW TRANSCRIPT, KIJ JOHNSON

1) How have digital publishing technologies impacted your approach to the writing process? Have digital publishing methods altered the form (length, style, modality, or other) of the work that you submit for publication?

I feel as though I straddle the gap: having worked in paper publishing for many years, I'm very aware of the conventions and practical considerations for writing and reading fiction on paper; having worked on an early e-book initiative for Microsoft, I've also spent a lot of time thinking about how information is collected from the screen, and processed. As I am writing a story, I know whether it will be more successful as print or on a screen. My decisions about story type, length, format, voice, and style are all shaped by this.

2) In your experience as an author, how does evolving modern technology inform your work as subject matter, and would you characterize the authorial view expressed in your work as generally optimistic or pessimistic concerning humanity's engagement with technology?

Generally I am optimistic about technology's role, even though in the past, we have used technology to do significant, irreversible, catastrophic damage. Technology will be the only way to counter this disastrous past—provided we are sufficiently foresighted as a species to maximize its possibilities.

I mostly write modern-day fiction or place my fantasies in an early industrial (or just preindustrial) period. I see technologies as being in the foreground of much of my writing -though I am more interested in how older technologies revolutionized the world than in current-day tech: for instance, the role of bicycles in the late nineteenth/early twentieth century in opening up the world for women; the weaving home-industry that meant Norsemen were expected to bring up to A MILE of fabric each, if they wanted to be accepted to sail on certain Viking ships.

3) How has digital technology impacted audience engagement with your work?

When I am published online, there is reaction to the publication in the comments after the story—usually an immediate response more than a carefully thought-through analysis—but there are also often essays, short posts on book blogs, etc.; and people are more often inclined to send me emails directly or through social media. When I publish on paper, there's a layer—powering up the computer, typing my name into google—that decreases this.

4) Much of your work could be described as humanistic fiction, engaging with some traditional narrative forms (fairy tale/the fantastic) and focusing closely on characterization. How do you view posthumanism and/or transhumanism as impacting the human condition? What does the twenty-first century hold for our collective understanding of what it means to be human?

I wonder sometimes whether we are already post-human in the same way fiction became post-modern. Post-modernism was the moment in fiction when it began (again) to stand

outside itself and interact with its intentions, instead of sustaining the modernist unironic transparency. I can't speak to the world as a whole, but among the (largely privileged) communities I'm currently a member of, very few of us exist free of existential tensions. We're not people living lives, we're people thinking about the lives we're living. Advertising, aspirational or cautionary entertainment, the endless self-reflection (however shallow) of social media -- are all forcing us toward ironic detachment from our selves.

5) What should effective horror fiction *do* for an audience? Which topics do you expect will be most unsettling or provocative for contemporary audiences as we progress into the twenty-first century?

It's sad, but the American/Anglo reader still gets squeamish as hell about so-called girl things. I could write a simple straightforward description of a menstrual period starting—the spotting, the clots, the smell, the textures—you see what I am saying. It would be harder for a lot of readers to hack than a graphic evisceration.

I have no love for the sorts of horror that are there to enforce the social norms; badly written horror; and visceral horror that isn't advancing something else: language, or insights into human character (and "everyone's vile" is so jejune as not to be any sort of insight).

6) As a scholar and an educator, how has technology impacted your pedagogical approach to working with students?

I don't integrate it especially deeply, though every year I teach I add something. Writing is such a hands-on, face-to-face thing.

APPENDIX D: INTERVIEW TRANSCRIPT, KIRSTEN KOWALEWSKI

1) In your experience as a reader's advisor, how have digital technologies complicated the nature of textual curation for libraries? How have digital technologies impacted access to texts and the overall levels of content diversity (voices, viewpoints, and subjects), in your view?

First, I should explain that I do not currently work in a library. My reader's advisory services come primarily through reviewing and observing changes in publishing, libraries, and the horror genre.

Second, it sort of depends what you are talking about when you say "digital technologies". In my opinion, one of the biggest paradigm shifts in librarianship occurred with the common usage of online library catalogs and flexible keyword searching. You probably never considered this, but I have done a retrospective conversion of a library and the difference in how you spend your time is amazing. In a library that depends on a card catalog and manual checkout, you spend a lot of time writing out catalog cards according to a specific protocol, filing them under specific subject heading, title, and author, filing the checkout cards in the back of books and matching them with individual library cards, and shelving. In other words, your time is almost completely taken up by keeping the library's organizational scheme orderly. Hypertext linking, intuitive cataloging (like tagging) the general availability of Internet services, as well as a wider acceptance of e-books, have also led to major changes in curation, and in the way librarians structure their time and services. It is now easier to find related materials in different media than ever before.

However, the ease of sharing/publishing means that most librarians cannot limit their curation of information to materials that are physically present. There's more access to certain kinds of materials, but you have to judge (and teach other people to judge) what is authoritative. There's also limited access to certain kinds of materials, although that has a different meaning than it did. Many online databases can only be affordably accessed by students at academic institutions, so independent researchers are really hampered. However, there are also databases that are provided by states at a cooperative level that can [accomplish this as well].

2) How have digital publishing methods altered the form (length, style, modality, or other) of the texts that you consider recommending? Are artists taking enough risks with the kinds of stories they are bringing to readers, or do you see a high degree of homogeneity in the marketplace?

From my perspective as a reviewer, the biggest changes are in promoting and distributing materials and the attempts to create transmedia properties. I know there are texts of a variety of lengths out there, but our criteria for review include length—we don't review anything shorter than novella length.

Digital publishing has had two opposite effects. First, it has democratized publishing, making texts more easily available than before. The common usage of ereaders and smartphones means that reading on a screen, and sending information over the Internet, is

easier than ever before. It used to be that sending a review copy of a book was a considerable expense for the publisher (or the writer, although that used to be less common when physical copies were preferred), especially because for many years the only way quality horror was getting published was through independent presses with small print runs. Sending physical copies on to reviewers was also a cost. Now, small publishers or independent writers can just email a file in the preferred e-book format, or send you a link to a NetGalley widget, so their work is more likely to get looked at faster, and they aren't out the expense if they send a copy that then doesn't get reviewed. The availability of different formats has also meant an expansion of the audience for horror. Previously readers had the choice of haunting used bookstores (an increasingly limited species) buying in mainstream bookstores (with a very limited choice of authors) or purchasing small press books usually intended for collectors, at a high price. A majority of librarians did not focus on the horror genre or know much about it, outside of a few mainstream authors and literary classics. Most libraries buy their books through a wholesaler like Baker and Taylor, and wholesalers require publishers to pay to be listed, so most small indie presses couldn't afford to list their titles. That means to purchase titles from independent presses, a librarian would have to make an extra effort.

Digital publishing opened up the horror genre to a flood of writing, long and short, with varying quality. Unfortunately, the flip side of this is that there are a lot of self-published books out now that have not been vetted by gatekeepers (like editors and beta readers) so it is a challenge to find the self-published books that are well-written and effectively edited in the crowd. Libraries have been affected by digital publishing as well. The major publishers set conditions on the use and purchase of e-books in libraries, and this also had to be done through a middleman, OverDrive. This has made it more expensive and difficult to connect e-books with readers, and again, this mainly concerns major publishers. Digital communication and bookish websites and blogs does mean that readers and librarians are more aware of indie and small presses than they used to be. I think the ease of self-publishing e-books means that more people have published things that wouldn't fit in a typical mainstream publishing niche, and it has allowed some people who were initially published in the small press to make their work more generally available, such as Rot, by Michele Lee (full disclosure, Michele writes for Monster Librarian)—in general, publishing mostly replicates what has already been successful. I do think that a writer can take advantage of an existing trend (like zombie fiction) to play with the trope or approach it differently, just because publishers see that zombies are currently popular. Thus we get books like The Girl With All The Gifts or The Reapers Are The Angels, books that, within the trend, get to shape their story a little differently. Something that has changed significantly since Monster Librarian started is that there really are no mainstream horror imprints. There are imprints that include horror in their publishing lineup, like Gallery Books or Angry Robot, but none (that I am aware of) that are solely devoted to horror (Permuted Press has partnerships with mainstream publishers, but they're the only ones I can think of). So that kind of opens up what writers can do and still have their work identified as horror. Something to think about is whether genre readers actually want horror writers to take risks. It may sound odd, but many of them look back to the time when they started reading horror and they want that same feeling they got at that time. I have at least one person waiting for the next John Saul or

Robert McCammon to pop up, and Dylan, the founder of Monster Librarian, was always on the lookout for killer animal titles from the 1970s. Many people who read genre fiction want more of the same. I do think that is opening up, though, as time passes and the books and authors people feel nostalgic about will be different. It has become more of a challenge to

3) Do you encounter more stories expressing optimism or pessimism concerning humanity's engagement with technology? What do you think the future will hold for our collective outlook on such complicated subjects as posthumanism and/or transhumanism?

Most of what I notice regarding engagement with technology is how it structurally changes the way we tell stories. It is really obvious in movies like *The Blair Witch* Project, The Ring, and Cabin in the Woods, but it happens in fiction, too. An example would be Maybe This Time by Jennifer Crusie, which was a riff on The Turn of the Screw. That story takes place in an isolated mansion in the middle of nowhere, which was plausible when Henry James was writing, but not so much in the 21st century. Crusie specifically notes at the beginning that she is setting it in the early 1990s. Had she set it later, the whole "isolated in the middle of nowhere" conceit would be destroyed by having a reliable Internet connection or a cell phone. Any plot dependent on the characters being in an isolated location, or on constantly missing or losing each other, has to address the technology issues. More recently, Lauren Beukes' Broken Monsters used our obsession with social media to drive the plot, and Paul Tremblay's A Head Full of Ghosts explored how the combination of storytelling and technology shapes and distorts our perceptions. I don't see these stories as being either optimistic or pessimistic, but rather cautionary or exploratory. As far as a collective outlook goes, I have difficulty seeing that kind of unity of view on almost anything. Only something major and disastrous could bring people together on an issue like that, and I would suggest looking at John Scalzi's work, particularly *Lock-In* and *Old Man's War*. He is a science fiction writer rather than a horror writer, but I think you are more likely to find explorations of that topic in the science fiction genre.

4) What should effective horror fiction *do* for an audience? Which subjects will scare audiences in the next 10-20 years? Do you anticipate any broader shifts in terms of *how* horror will unsettle, provoke, or disquiet an audience (such as a shift from the physical/monstrous to the psychological/personal) as we move forward in the twenty-first century?

To paraphrase Stephen King, it should go for terror, then horror, then the gross-out.

But here are my observations:

People who read horror fiction do it partly because it is a thrill ride. If it's done right, it's a thrill ride that actually has a physical effect on the reader—I've heard it described as "a punch to the gut". It can have a paralyzing effect—you can't look away. There is something cathartic about surviving it.

Really well done horror, in my opinion, creeps in around a deeply felt, primal fear or uncertainty and stays. Those are the books I can't let go of and can't go back to.

As far as the shift between physical/monstrous and psychological/personal, I think that's a false dichotomy. Horror has a place for both of those and always has, and they're very related to one another. Any aberration from the "normal" is a likely choice for exploitation in horror fiction. If you want elaboration on that, I am willing to do it but I've spent a long time on this already. The change that is occurring right now is the wider awareness of and popularity of cosmic and existential horror. I suspect that will be shortly followed by religious horror along the lines of the *Left Behind* books—evangelical Christians are pretty sure the end is near.

Most people who are dealing with real-life horror in terms of terrorism, genocide, and other major social issues, which is awfully common, will not seek out horror fiction, and horror fiction hasn't directly approached those issues. Horror fiction is mainly focused on personal, primal fears. I would like to see more diverse authors and approaches to horror fiction, that maybe acknowledge that places and people outside rural New England, decaying urban areas, and the Deep South exist.

5) What does the next decade hold in terms of content curation trends in the fantasy, horror, and science fiction genres? Which practices do you anticipate will have meaningful impacts on artistic production in these areas, and how do you see speculative fiction fitting in at both public and academic libraries?

I think that librarians are a little more well-versed in the horror genre than they used to be, and horror/supernatural/apocalyptic fiction is getting a little more credibility. Horror still isn't acknowledged as a separate genre much of the time, which, frankly, gets old. As much as romance, science fiction, and fantasy complain about getting no respect, they at least get identified as their own genres. I do see there being continued blending between genres, and it's kind of exciting to see how authors are taking elements from different subgenres and running with them. How content is curated (at least physically) is going to be different from place to place. Some libraries intershelve genre fiction with the rest of the fiction, some sticker it and intershelve it, some shelve it separately. Shelving it separately is going to be more and more difficult as there has been so much genre blending. For instance, where do you shelve Gone Girl? Is it "regular fiction", a mystery, psychological thriller, human horror, or all three? Academic libraries—I don't know. Genre fiction typically is considered popular fiction, and that's not usually something academic libraries are famous for. I'd expect to find criticism and nonfiction about the horror genre there, and books more likely to be used in satisfying course requirements. As a former school librarian, supporting the curriculum always has to come first. If Professor X comes to me and says "I need these books/movies to support my Zombies in Popular Culture class" then I'd be more likely to track them down and purchase them. There is a lot more emphasis on popular culture in academia now, so I can see that area growing if more professors choose to incorporate it. I think we are also likely to see variants of the same stories- for instance, in discussing Frankenstein, a book every library ought to have, there are multiple versions, including graphic novels, artwork, movies, YA

novels, television shows, poetry, criticism, and multimedia collections (like iClassics, which combines literature with audio, video, and digital content). As our ability to tell stories in different ways increases, libraries will need to adapt to be able to provide access through a variety of routes.

APPENDIX E: INTERVIEW TRANSCRIPT, KEN LIU

1) How have digital publishing technologies impacted your approach to the writing process? Have digital publishing methods altered the form (length, style, modality, or other) of the work that you submit for publication?

I don't currently publish directly on digital platforms like the Kindle or iBooks, so one might imagine that I haven't been affected by the shift as much as some other authors. However, it doesn't mean that I'm immune. I do publish a great deal of short fiction electronically, and my traditionally published books have more readers electronically than on paper, so I am indeed affected by the way publishing is now a largely digital business.

The main impact has been the feeling that digital publishing (or at least the need to accommodate the relatively primitive level of technology in use right now) makes the kind of things I want to do more difficult and thus discourages certain kinds of experimentation.

Some examples:

a) I wrote my epic fantasy, *The Grace of Kings*, to be read in conjunction with a map. However, it is very hard to flip back and forth between a map and the page you are on a Kindle, and the small size of the Kindle screen and the low resolution make maps very unattractive. The result is that many readers who read my books electronically tell me they didn't look at the map or didn't want to look at the map, which meant that the book was confusing to them in places.

Some authors tell me that I should have just written the book so that readers can follow the action without the map. I disagree. If a map was merely optional, I wouldn't have bothered to include it. The very point of having a map is so that I don't waste words describing what is obviously shown in the map. I dislike having to change the way I write because of a (hopefully temporary) deficiency in the technology of digital reading.

The fact that our primitive e-readers make something trivial in paper form difficult or impossible to do is unfortunate.

b) Many of my stories include Chinese characters or calligraphy. Even just a few years ago, web zines and electronic anthologies had a lot of trouble with them because browsers, e-book readers, and other devices handle encodings and Chinese font display imperfectly. For a while, some of my publishers had to convert the Chinese characters into ugly gifs embedded in the electronic files, making the result suboptimal for everyone. Even now, with the advent of Unicode everywhere, I still can't count on e-book readers or web clients to handle Chinese text without problems.

I also did something similar with emoji by putting them in stories to serve as a kind of alterative script. But even now, many e-book readers can't handle emoji

display properly. This caused my publishers a lot of pain, and it's made me less willing to experiment.

- c) I enjoy writing stories that play with form and layout and font use and other graphical effects. (For example, I wrote one story that iterates over the same few paragraphs, but each time cutting out more words so that the "holes" left behind tell a story). These effects are almost impossible for e-book publishers to replicate due to the lack of sophisticated layout options in e-books (and the fact that the reader has more control over display options than the publisher).
- d) I can go on ... but fundamentally, epublishing makes it harder to experiment, and sometimes I just give in.

On the other hand, I have reached many more readers as a result of digital publication, especially outside the US. That hasn't really changed the way I write fundamentally, though I am tempted to try indie publishing with projects that are less appealing to traditional publishers.

Also, the Kindle and other e-book readers have very restrictive formatting requirements for authors, wanting the input Word documents to be structured a certain way with headings, chapter divisions, standardized formatting, etc. I know other writers have begun to "write for the Kindle" where they structure their books that way.

The proliferation of writing apps is also interesting. For example, Taiyo Fujii, author of *Gene Mapper*, talked about how he learned to write novels with a certain structure from software intended for writers.

I and many other writers enjoy writing in software like Scrivener, which imposes a certain kind of workflow on the writer and tries to teach the writer to conceptualize a book a certain way (e.g., many writing programs emphasize the division between "formatting" and "content" -- which is helpful when you need to produce the book in a variety of formats and adjust the styling for different target readers/devices, but also discourages thinking of formatting as an integral part of the book). I write my novels and stories using a variety of different programs, and that's how I consciously try to prevent my mind from following the lead of software templates.

2) In your experience as an author, how does evolving modern technology inform your work as subject matter, and would you characterize the authorial view expressed in your work as generally optimistic or pessimistic concerning humanity's engagement with technology?

I'm a technologist, and I like to think about the way technology acts as a multiplier for the human will. Technology by itself is neither good nor bad; it simply magnifies the human capacity for both. My stories tend to take a fatalistic approach to technology. The development of technology is, in some ways, driven by technology itself. It is an inexorable force that has its own desires and goals and needs, an always *becoming* that is both beautiful and horrible. Because I work in litigation consulting for technology cases, I am, by profession, a historian of technology as well as a practitioner, and my stories can't help but be informed by that experience.

Because technology acts as a neutral force multiplier, this (somewhat paradoxically) means that its potential for destruction will always be greater than its potential for positive change. The universe tends toward an inexorable net increase in entropy, and technology does not allow us to escape from that fact.

I'll give you an example. As much as computer networking has enriched our world, its potential for destruction is far greater and not as well understood. Cyberwarfare is something that all the world's governments are pursuing, and as our world becomes ever more dependent on automation and ubiquitous computing, a day will come when cyberwarfare will lead to the deaths of millions.

Similarly, as equipment and knowledge for genetic engineering become ever more accessible, it will bring about a wave of biotech hackers who will play with DNA sequences much as we explored source code on our computers. But long before we find the cure for cancer, someone will create a virus—much as computer hackers designed and built machine viruses as a part of their self-education—that will again bring unimaginable suffering and deaths. There is no way to prevent that from happening because as technology becomes ever more powerful, the ability for any individual to cause mayhem also increases exponentially.

I wouldn't say I'm a pessimist though. In the long run, after all, the universe will end in heat death, and all life will fade into the great silence that awaits us all. That I think technology is more likely to bring about our end than our salvation does not make my view any more pessimistic than it is pessimistic to acknowledge that we all die. It's what we can do with technology to make the universe grander and more beautiful before the inevitable day of reckoning that makes the romance with technology so wondrous.

3) How has digital technology impacted audience engagement with your work?

I've gotten to know a lot of my fans through Twitter and Facebook, and I've gained a lot of friends from across the world due to having my stories available for free on the web and social media. Many of these friendships and relationships have turned out to be incredibly rewarding, both in intangible ways and in terms of business opportunities. I would not have become a translator from Chinese to English, and half of my career would not have happened, without the Internet enabling me to connect with writers and friends in China.

4) Recent research by Sherry Turkle indicates that children harbor authentic affection for their furbies. They nurture their tamogotchies. Your works "The Gods Will Not Be

Chained" and "The Algorithms for Love" present novel speculations on the future of the family. How (if at all) will our cultural definition of emotional love become reconfigured in the twenty-first century?

I have no idea. Predicting the future is incredibly difficult, and I think science fiction writers are actually worse at predicting the future than the population average.

I don't think it's actually all that interesting that we form emotional attachments to machines—we have always endowed inanimate objects with human qualities.

I am, however, very interested in seeing how the predictions of the Singularity movement bear out. My suspicion is that they are wildly optimistic and we won't see anything even close to what they're predicting in the 21st century. But maybe I'm wrong about that.

5) What should effective horror fiction do for an audience? Which topics do you expect will be most unsettling or provocative for contemporary audiences as we progress into the twenty-first century?

Having just said that I don't want to predict the future, I'm now going to backtrack a bit.

I do think artificial intelligence that exceeds human intelligence (in all the ways that matter, including creativity) will become a reality in my lifetime, and how we react and adjust to an economy dominated by machine intelligence and robotic labor will drive much of our social anxiety.

Will this lead to a post-scarcity world economy or exacerbate the division between the haves and have-nots? The truth is that nobody knows. This seems the sort of zeitgeist that horror traditionally has been very good at tapping into (much as 19th century European and American horror fiction tapped into the anxieties about Imperialism, the rise of classwarfare, and the depersonalization attendant on industrialization.

APPENDIX F: INTERVIEW TRANSCRIPT, DR. TONY MAGISTRALE

1) In your view, how have digital technologies and/or trends (self-publishing, crowdfunding, film-editing software, etc.) impacted the horror field? Is the genre healthy in these first two decades of the twenty-first century?

No question that the new technologies have had an impact on recent horror art, both in its creation and accessibility. Digital technologies have made it possible for any aficionado of the genre to pick up a camera and begin filming their own nightmares. Home-grown horror has always had an important place in the genre—think of Texas Chainsaw as just one of the many examples. Additionally, film editing software continues to build on the F/X improvements that we introduced to the genre in those halcyon years during the 70s. I think the genre is alive and well, and not just because of advances in technologies.

2) How have digital technologies altered the form (length, style, modality, or other) of the texts (films, novels, stories, artwork, etc.) of contemporary horror?

I think it has made the genre more accessible to people who earlier could not afford to create their own films and/or to produce special effects without access to Hollywood. I think digital tech has created greater access to special effects and other artistic renderings.

3) Do you encounter more narratives expressing optimism or pessimism concerning humanity's engagement with technology? What do you think the future will hold for our collective outlook on such complicated subjects as posthumanism and/or transhumanism?

The horror genre has always had a pessimistic perspective on the interaction b/w human and technology. I'm trying to think of a positive film on the subject and thus far I can't. From the 50s sci-fi horror to Blade Runner to Deus Ex, the mixing of the human with the technohuman bodes badly for one or the other, sometimes both. Apparently, the more sophisticated the robot, the less likely to get along with the human. That seems to be a standard bearer.

4) What should effective horror fiction *do* for an audience? Which subjects will scare audiences in the next 10-20 years? Do you anticipate any broader shifts in terms of *how* horror will unsettle, provoke, or disquiet an audience (such as a shift from the physical/monstrous to the psychological/personal) as we move forward in the twenty-first century?

No question that recent horror has centered on a post 9/11 response. Because horror art works subliminally, it provides the perfect place for expressing our unresolved anxieties about terrorism, Muslim xenophobia, and American global imperialism. Cabin in the Woods, The Mist, the torture porn genre, Cloverfield, these are all films that use either 9/11 and/or American misadventures in the Middle East as subtexts for the horror that is unleashed in each particular film. Audiences are still "looking to the skies" in many of these films, and the horror they anticipate in unsettling portraits of falling skyscrapers and sudden breeches in rationality is a sobering reflection of a society reeling from terrorism, without and within. I suspect the 9/11 impact has not yet expended itself.

5) What does the next decade hold in terms of critical horror studies? Which practices do you anticipate will have meaningful impacts on artistic production in the field, and how will academia regard speculative fiction as we move forward into this new century?

Academia has always put on its most dour face when asked to view seriously critical work on the horror genre. Look at how long it has taken Stephen King to be considered a serious writer, and now it is only because the NEA, National Book Awards, and The New Yorker have helped to make his case. Even so, there has never been a special edition of a major academic journal in cinema studies devoted to adaptations of King's work, much less the fiction upon which these films are based. Maybe this is just as well. Let academics continue to write their monographs about Jane Austin; those who are truly interested in exploring horror as the most effective barometer for our time will happily continue to do so.

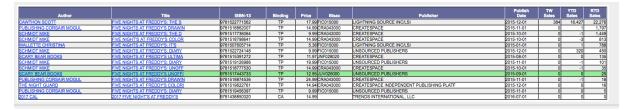
APPENDIX G: INTERVIEW TRANSCRIPT, NICK MAMATAS

1) In your experience as an editor and author, how have digital technologies (crowdfunding, e-zines, digital-only presses/imprints, fan sites, etc.) changed the nature of textual production in the speculative genres? Are these changes good, bad, or merely the expected course of progress?

Editorial skill has largely vanished, though this is only partially through the disintermediation of publishing thanks to POD and e-book technology. Anyone can be an editor now simply by having some very small amount of money to invest in a basic desktop and Internet connection. Of course, the major publishers long since offloaded most editorial work to either literary agents—agents demand significant rewrites these days—or to the marketing department. POD and e-books compete on price: sure, that one-dollar e-book may be five times worse than the new Stephen King hardcover, but it is also twenty-five times cheaper; for many consumers that makes the e-book five times better. There is far more very bad writing, available cheaply and easily, to consumers now. In the same way one doesn't fuss overmuch when a spatula from The Dollar Store breaks, readers don't overmuch care if their dollar e-book purchase is very good. It's good enough, for a dollar.

(As an aside I had to laugh when an acquaintance of mine who self-publishes dollar e-books complained of the new generation of self-publishers who were bundling a dozen novels together and selling the "boxed set" for a dollar. He thought it really devalued the written word.)

I have access to Bookscan, which measures actual physical book sales—that is, sales to individuals from either bookstores or various e-tailers. The books are coded in a variety of genres, one of which is Horror/Occult. I was surprised to find a few months ago that the bestseller was a POD title based on the online video game *Five Nights at Freddy's*. Keep in mind that POD titles are, as a rule, not available in bookstores, and that Bookscan does not measure e-book sales. So simply by having a channel through amazon.com and bn.com, this book pushed past all the horror titles available in stores and sold thousands of copies in a week. See the attached figure (TW is This Week, YTD is Year to Date, and RTD is Release to Date).



The book is still selling extremely well—the average horror novel available in stores sells many fewer copies on a weekly basis. (Many instant spin-offs were also produced, as the figure shows.) Several months after release, this Five Nights book is still in the Horror/Occult/Psychological top twenty:



Be aware that this is without any sort of major media push. This also does not count e-book sles at all—which we can presume are much higher as the e-book is priced quite cheaply at \$2.99. It's a self-published book by the creator of a homebrew video game, and it reads very poorly. It starts with the death of a character, and then enters into a flashback, for example, and the language and sentence structure basically would have meant an instant rejection letter.

Chapter One

He sees me.

Charlie dropped to her hands and knees. She was wedged behind a row of arcade games, cramped in the crawlspace between the consoles and the wall, tangled electrical cords and useless plugs strewn beneath her. She was cornered: the only way out was past the thing, and she wasn't fast enough to make it. She could see him stalking back and forth, catching flickers of movement through the gaps between the games. There was scarcely enough room to move, but she tried to crawl backward. Her foot caught on a cord. She stopped, contorting herself to carefully dislodge it.

She heard the clash of metal on metal, and the farthest console rocked back against the wall. He hit it again, shattering the display, then attacked the next, crashing against them almost rhythmically, tearing through the machinery, coming closer.

I have to get out, I have to! The panicked thought was of no help; there was no way out. Her arm ached, and she wanted to sob aloud. Blood soaked through the tattered bandage, and it seemed as though she could feel it draining out of her.

The console a few feet away crashed against the wall, and Charlie flinched. He was getting closer; she could hear the grinding of gears and the clicking of servos, ever louder. Eyes closed, she could still see the way he looked at her, see the matted fur and the exposed metal beneath the synthetic flesh.

Suddenly the console in front of her was wrenched away. It toppled over, thrown down like a toy. The power cords beneath her hands and knees were yanked away, and Charlie slipped, almost falling. She caught herself and looked up just in time to see the downward swing of a hook...

Welcome to Hurricane, Utah.

Charlie smiled wryly at the sign and kept driving. The world didn't look any different from one side of the sign to the other, but she felt a nervous anticipation as she passed it. She didn't recognize anything. Then again, she hadn't really expected to, not this far at the edge of town where it was all highway and empty space.

(Commercially available videogame novelizations are at least written by professional writers under a contract from the license-holder.)

Is this bad? Yes. It's subliterate material, based on a not-very-interesting point-and-click shock/twitch game, as the preferred reading material over writers who actually have skill. I suppose the best we can say is that this sort of work is not cynical. It's a hobby/diversion that just happened to make the hobbyist a huge amount of money in a short period of time. If horror weren't so weak commercially, this would not happen nearly as much, as at least some editor

somewhere would have recognized the value of the videogame IP and licensed it for "real" novels.

It's also worth noting that many of the other books on this week's top-twenty are more fruitfully read as fairly bloody mysteries or noir thrillers rather than horror. The rest of the list are backlist titles, mostly from Stephen King.

2) Do you encounter more submissions and/or stories expressing optimism or pessimism concerning humanity's engagement with technology? What do you think the near future will hold for our collective outlook on the subject?

Far more pessimistic, but that can simply be a function of my role as an editor of dark fiction. There is still plenty of call for positive technological themes—that *The Martian* (also originally self-published!) went from being on some guy's website to the best-selling science fiction novel of the past few years and an Oscar-nominated film in just four or five years shows that there is plenty of hunger for narratives that embrace technology.



I would certainly say that horror editors more frequently receive submissions that deal with our anxieties regarding technology, while science fiction editors will get many submissions the deal with our hopes regarding technology.

3) Academia has largely embraced critical horror studies over the course of the last 35 years. Why do you think horror fiction is becoming more popular in higher education? Has it risen "above the gulag of pop culture" (Dr. Dale Bailey quotation) in your view?

Horror, unlike its cousin science fiction, has a better pedigree. Horror can be found in myth, folktale, Gothic literature, the "sensation" novel, and in the nineteenth century ghost story. Horror, and its other cousin, crime fiction, thus have a little easier row to hoe than science fiction and heroic fantasy when it comes to scholarship. The late nineteenth and early twentieth-century genres codified by popular magazines lack the provenance of horror, and thus might have a harder time in the academy.

4) I'm interested in your thoughts on authors of speculative fiction and the DIY ethos. Why do SF, fantasy, and horror writers seem to excel at pioneering publishing practices (penny dreadfuls, pulps, and dimes, B-movies, comics, zines, etc.)? Is there anything to that idea, or is merely selection bias on my part?

It is incorrect to suggest that the authors have much to do with this. Popular magazines and pulp magazines, where "speculative fiction" was born, were not author-created, or author-driven, or even really author-friendly. Instead, the businesspeople who created these magazines were responding to a demand in the marketplace thanks to a newly urbanized and newly literate working class. This new urban working class found their lives overdetermined by technology—

whereas the agricultural worker is ultimately managed by the calendar, the Fordist factory worker is managed by the hands of the clock and the speed of the assembly line. Life got much faster, and individuals more thoroughly alienated from their labor through deskilling, exploitation, and the alteration of their lives. That's the core of science fiction. Urbanism also meant the professionalism of the police force and the rise of organized crime—crime fiction. Romance and fantasy too represent the creation of contemporary modern romantic love (as opposed to arranged or tactical marriage) and the suggestion of a previous golden age of noblesse oblige and social stability—both necessary ideological myths for this new class. So there are your pulp genres.

Even fanzines; most fanzine fans did not become professional writers, though more than a few became professional fans. Self-publishing technology—POD etc. come directly from big companies. Barnes & Noble used to have an interest in iUniverse; XLibris has Random House investment. Lightning Source was quickly bought by Ingram. And of course we all know about Amazon and e-books...

5) What should effective horror fiction *do* for an audience? Which subjects will scare audiences in the next 10-20 years? Do you anticipate any broader shifts in terms of how horror will unsettle, provoke, or disquiet an audience (such as a shift from the physical/monstrous to the psychological/personal) as we move forward in the twenty-first century?

Depends on the audience! Horror is a trash taxon—it's where we put all sorts of stories, that are also science fiction or romance or experimental fiction or a crime story, etc. These all have different audiences, although there is some overlap. There's been a huge emphasis on romance and horror over the past twenty years—think Buffy the Vampire Slayer, Anita Blake, and the endless retreads in urban fantasy/paranormal romance. The past decade has seen many science fictional explorations of the dystopia—even zombie fiction is science fictional, in that the cause of zombie outbreaks are rationally considered, as is what to do to survive them. Nobody wields a cross at a zombie.

It's a fun, if silly game to tie this or that trend to this or that political issue. Nobody really knows what will take off—if publishers did, they'd publish many fewer books. It would be more like films; release five hundred a year in and the hope that millions of people will see them. Publishing will still release hundreds of thousands of books a year in the hope that thousands will see them. The million-sellers are a tiniest sliver of the field.

6) What does the next decade hold in terms of publishing trends in the fantasy, horror, and science fiction genres? Which practices will have meaningful impacts on artistic production in these areas?

We'll probably see the end of chain bookstores. Mall kiosks and pop-ups, plus well-curated independent stores, will be where people buy books. The kiosks will have print-on-demand machines for people who don't want to read e-books, and the indie stores will have nice editions with high-quality paper and likely POS e-book sales as well—buy a paperback with your credit card and the e-book will automatically appear on your Kindle. Buy an e-book, and press a

button, and go pick up your paperback at the local 7-11. That sort of thing. This is true of all genres, not just speculative fiction. We'll be spoiled for choice, but not for heterogeneous choice, as the "best bet" will be to write just like *Game of Thrones* or *The Walking Dead* or *Hunger Games...*or whatever the new bestsellers will be. A slightly larger pie sliced into ever thinner slices, with whomever can manipulate their prices fastest winning the few seconds of attention needed to download a book.

APPENDIX H: INTERVIEW TRANSCRIPT, ANGEL LEIGH MCCOY

1) In your experience as an editor, how have digital technologies (crowdfunding, e-zines, digital-only presses/imprints, fan sites, etc.) changed the nature of textual production in the speculative genres? Are these changes good, bad, or merely the expected course of progress?

Publishing and getting published have changed in so many ways since the digital revolution. Anyone can self-publish now, or create an anthology or e-zine of others' works. This has had both positive and negative repercussions on the industry. A vast number of people who don't have the skills to write professionally are putting out content. This creates a lot of white noise and makes it harder for the quality material to rise to the surface. Thus, skilled writers who are serious about making a living at it have found it more difficult to actually make their mark, build an audience, and get their books noticed.

It has changed expectations among consumers. They now pay less for books than they did before, which in turn, cuts down on what the writer can make from a sale. When they can get so much content on the web for free, they're less likely to purchase a book. This, I believe, is changing as people learn that the white noise is just that. They're returning to publishers and distributors to find the books they will enjoy. Publishers and distributors are becoming—again—the guardians of quality. But, it's taken some time to get there.

Marketing your book is so much more important now than before. Where before people would just go browse the library or book store (and they still do), if you want your book to find its audience you have to be ready to market it. You can't just be an author anymore, not if you're self-publishing. You have to be the writer, the marketer, the editor, and all. It's more than a full-time job, and this is why so many writers are one-hit (or one-not-a-hit) wonders.

The white noise has contributed to the trend toward authors writing serial novels, I believe. This is because when a reader finds an author they enjoy, they stick with them. It's a crap shoot out there, finding a writer you like. It's much safer to stick with someone you know you like.

On the positive side, well, anyone can put a book out. So...all those people we love who have wanted to write a book since they were kids can now do so. Whether it will sell or not remains to be seen. The experience can teach business practices and other such skills that they may otherwise not have learned.

And, the opportunity to become a beloved author is greater now, simply because you don't have a handful of Publishing professionals with business agendas judging your work. The audience (those who actually find your work) will judge it directly themselves.

2) How have digital publishing practices changed (if at all) the general diffusion of diverse voices and subjects in speculative fiction?
So much of the white noise is derivative, often modeled after existing works. I do believe, however, that some authors have managed to break out where they may have failed

before. These authors tend to develop an audience from within their own social groups. For example, I know many LGBT authors have been able to publish digitally what they would not have sold to a publishing house.

3) Do you encounter more submissions and/or stories expressing optimism or pessimism concerning humanity's engagement with technology? How do you deal with technology's influences on human development in your own writing?

There's a lot of pessimism out there, and an apparent yearning for civilizations with no technology whatsoever. Zombie stories, for example. Any Apocalypse tale. They're all about what would happen if technology failed us in a spectacular way. Even the trend toward stories about supernatural beings attempting to live normal lives (vampires in high school) seems to imply that technology isn't what's going to save us. We don't need no stinkin' technology. The natural and supernatural worlds are far more interesting. I believe these stories are fascinating to people because we want to read about life-or-death conflict, something few of us have in our day-to-day lives.

I myself am inclined to portray technology as a danger. At any moment, it could get out of hand and become far more destructive than the problem it's trying to solve. For example, one of my short stories, entitled "The God Bloom," is about algae that is being used to clean up oil spills. This is a real thing. In my story, it gets out of control and starts consuming all the petroleum products in the world. You'd be amazed by what we have in our homes that is made with petroleum. Those are the kind of stories I tend to write with technology themes. I love doing the research on those.

4) What should effective horror fiction *do* for an audience? Which subjects will scare audiences in the next 10-20 years? Do you anticipate any broader shifts in terms of *how* horror will unsettle, provoke, or disquiet an audience (such as a shift from the physical/monstrous to the psychological/personal) as we move forward in the twenty-first century?

I am of the Rod Serling school of horror which believes that Horror should be something of a cautionary tale. I'm not a fan of gratuitous violence or torture. I don't get a thrill from that. But, show me something in my own life that could hurt/kill me if I don't pay attention, and I'm hooked. Show me the horror in my routines and my choices. One excellent example of this is the BLACK MIRROR series of television shows. The episodes all take something you do every day in real life, and they show you just how wrong it can go. That's horror, IMO.

My humble prediction: Over the next 10-20 years, I don't see much changing in the Horror genre. As the planet continues to suffer, we will continue to see many stories about apocalyptic events. I believe the Horror genre will gradually evolve toward visual storytelling and away from novels. I don't see our Millennial generation doing much reading, and the smart market will follow those trends. I expect those visuals will be comics, video games, movies, TV shows, and Youtube videos. Virtual reality is just

around the corner, and so I can easily envision people wanting a more visceral experience of their Horror stories, something books cannot provide as well.

5) What does the next decade hold in terms of publishing trends in the fantasy, horror, and science fiction genres? Which practices will have meaningful impacts on artistic production in these areas?

Speculating... over the next decade, I don't see much changing relative to genres. Audio books will continue getting more popular, and we'll see more of the genre books recorded. The popularity of these genres tends to be cyclical over long periods of time, and Horror has been on the rise for fifteen years or so. I could say that it will plateau, and may have already, but I don't see it becoming less popular in the next ten years. As for Science Fiction and Fantasy, they've both gotten big boosts lately. The GAME OF THRONES TV show gave Fantasy a shot in the arm. Very recently, we've been making strides in space (Jupiter) which will undoubtedly inspire writers and readers to want more SF.

I think it's most clear to me that the trend is toward genre fiction and away from mainstream fiction, for now. Paranormal, supernatural, superhero, mythical, fantasy... it's all popular right now. Why? Maybe because everyone wants to be more than they really are. The Internet spreads the dream of popularity and success, of power, and of becoming greater than you have been. One could say that the Internet fuels the New American Dream. Get enough views and you're a star. At the same time, the Internet evens the playing field. Anyone can be an author these days. "I published a book," isn't the same accomplishment it once was. So, readers feed their fantasy of being special with genre fiction.

One trend I have noticed is that people (myself included) appear to prefer books written in first person. I blame this on the Internet, where everything we read is presented as a first-person account of events, thoughts, etc. Third person perspective feels unnatural and haughty to me these days. I don't know if that is a trend that will continue. I have just noticed it.

APPENDIX I: INTERVIEW TRANSCRIPT, DR. MICHAEL MORRISON

1) In your view, how have digital technologies and/or trends (self-publishing, crowdfunding, film-editing software, etc.) impacted the horror field? Is the genre healthy in these first two decades of the twenty-first century?

In my view, the health of the horror genre *per se* has declined since the 1980s. The technological developments referred to in your question have diffused genre stories, making them more difficult to locate (except in best-of-the-year anthologies) and lessening quality control that used to be imposed by conventional publishing apparatuses, be they major or small presses. On the other hand, horror has increasingly diffused into mainstream fiction and the ambiguous catch-all category of "weird fiction." Many of these developments parallel the breakdown of genre boundaries that have affected science fiction and, to a lesser extent, fantasy. So horror *as a mode* remains healthy, in the sense that excellent horror fiction at all lengths can be found, but it is much more difficult to identify and is undergoing a mutation into new forms that nature of which cannot yet be identified. How much of this mutation can be attributed to digital technologies is unclear to me.

2) How have digital technologies altered the form (length, style, modality, or subject matter) of the texts (films, novels, stories, artwork, etc.) of contemporary horror?

Massively. The primary effect has been one of diversification, in that with self-publishing, e-books, and the increasing prominence of small presses, fiction on almost any topic, in almost any style, of almost any length can be made available. (Film is something of an exception; while the cost of filmmaking has dramatically decreased, it is still sufficient to preclude the flexibility allowed other forms.)

3) Do you encounter more narratives expressing optimism or pessimism concerning humanity's engagement with technology? What do you think the future will hold for our collective outlook on such complicated subjects as posthumanism and/or transhumanism?

I see no shift between optimism and pessimism *in horror fiction* from what I saw in the 1980s. Where the major shift has occurred is in science fiction and, to an even greater extent, in mainstream fiction—where the prevailing mood is increasingly pessimistic. This shift is even more pronounced in young-adult fiction, where dystopia has become the default mode. Arguably, one reason for the diffusion of science fiction into mainstream fiction is that near-future dystopias are science fictional. The other topics in this question, posthumanism and transhumanism, have been and continue to be explored in science fiction but, so far as I am aware, much less so in mainstream fiction. While stories on these topics have been written using the aesthetics of horror fiction, they seem so intrinsically bound to science that they're likely to remain the purview of SF, at least for the near future; similarly, understanding them requires coping with so many science fictional techniques that it seems unlikely that they'll play much of a role in mainstream fiction.

4) What should effective horror fiction *do* for an audience? Which subjects will scare audiences in the next 10-20 years? Do you anticipate any broader shifts in terms of *how* horror will unsettle, provoke, or disquiet an audience (such as a shift from the

physical/monstrous to the psychological/personal) as we move forward in the twenty-first century?

The conventional answer to your first question is that effective horror fiction should be cathartic: should enable its audience to confront, not just intellectually but emotionally, fears all mortals share, but do so within the safe confines of known fiction. More deeply, certain kinds of horror fiction allow imaginative engagement with aspects of the spiritual (supernatural) which were essential parts of fiction until the coming of realism. Finally, horror fiction enables engagement with the unknown and, if done well, provides a screen onto which readers can project and, perhaps come to terms with their fears of the unknown. To your question about what subjects will scare audience in the next couple of decades, the only answer I can give with reasonable confidence is various forms of manmade natural disasters (e.g., climate change). Now that horror is no longer a prominent genre, it seems to be developing according to its own internal logic, rather than being driven by current developments in the world outside the page. (This, I think, is not necessarily a bad thing.) I suspect that broad shifts in the machineries of horror are unlikely; the ways writers of horror fiction seek to induce various emotional responses in readers seem far more individualistic than they are trend-driven. Perhaps this is unsurprising, since of all modes of fiction, horror (and humor) are the most dependent on individual style.

- 5) What does the next decade hold in terms of critical horror studies? Which practices do you anticipate will have meaningful impacts on artistic production in the field, and how will academia regard speculative fiction as we move forward into this new century? During the past decade or so, the number and quality of critical studies of horror fiction have plummeted. (I have not found this to be the case more generally: e.g., studies of science fiction.) Very little academic work on horror (or science fiction) seems to impact authors or film makers. In the past, literate, thoughtful critical work *written for general readers*, rather than for academics, seems to have had some influence; at least, many writers of horror fiction read and often responded to such work. This type of writing seems to have all but vanished under the onslaught of various forms of commentary all over the internet. Some of this commentary is thoughtful and may be of interest to readers and writers alike, but finding it amidst the dross requires more time and effort than many are likely to invest. By now, science fiction (speculative fiction) has been sufficiently accepted by the academy that one can confidently expect it to become increasingly prominent. I can't image this happening for horror fiction as such.
- 6) Please provide any other insights that my questionnaire did not tap into on subjects related to textual production, critical horror studies, and horror themes/subjects in the near future.

During the twentieth century, reader demand for fiction and film identified as "horror" seemed to parallel (more-or-less) public attitudes about the present and future (economic, political, social, etc.). Were that still the case, horror would currently be experiencing a boom of unprecedented proportions. That is not happening. Maybe this effect is market-driven (publishers often publish as "fiction" novels that in the '80s and '90s would have

been published as "horror"). Maybe it is a result of the diffusion of horror into mainstream and, to a lesser extent, science fiction. The themes of horror and, perhaps more to the point, stories that affect readers as does horror fiction, are unlikely to change greatly and certainly aren't going to go away. (The only major new "theme" introduced during the last decades of the twentieth century was "body horror," which has always been with us but perhaps less prominent or extravagant. And arguably that development could be attributed to the influence of two individuals: Clive Barker and David Cronenberg.) It is perhaps worth noting that what the explosion of new forms of textual production has *not* done is to markedly expand the subject matter of horror. So few topics (if any) were taboo before these developments that little expansion seems possible. To conclude on a personal note: I find that I read much less horror fiction than I did, say, twenty years ago. New writers come into the field but I find a much smaller percentage of their work compelling. On the other hand, I encounter less horror fiction, because its modes of distribution are so diffuse. So when I encounter a new writer whose work really engages and excites me (say, Simon Kurt Unsworth), it's almost always by accident. The disappearance of Stephen Jones' best-horror annual will only make it harder to follow the field.

APPENDIX J: COPYRIGHT INFORMATION

COPYRIGHT INFORMATION

- Fig. 1: *Mr. Karswell's Magic Lantern Show* is featured under permission of the artist, Paul Boswell.
- Fig. 2: *Weird Tales* (Canadian edition) cover art is by Edmond Good (1942) and is available for use in the public domain.
- Fig. 8: "Herobrine's first 'appearance' in Minecraft" (n.d.) is hosted at the *Minecraft* Fanon Wiki and is available for use under a Creative Commons BY-SA license.
- Fig. 9: *Cell* cover art is by Mark Stutzman (2006) and is featured under permission of Simon and Schuster.
- Fig. 10: *They Live* still photo is from the film by director John Carpenter (1988) and is featured under permission of NBC Universal.

1200 Avenue of the Americas, 12th Picce New York, NY 19020 h-mail: briward.Xoparanian@simonandachuster.com Edward Eoparanian Permissions Department Fax (212) 698-7274

March 8, 2017

Daniel W. Powell Daniel Powell@lisej.cou

Dear Daniel W. Powell:

In reply to your request, you have our pormission to use the cover of "Call" by King as specified in your request for your Declaral degree dissertation. New permission is required for all subsequent uses.

The following acknowledgment is to be reprinted in all engines of your dissortation:

Used by germission of Scribner, a division of Simon & Schuster, Inc., from Cell by Stephen King, Copyright @ 2006 by Stephen King. All rights reserved.

This permission applies to all copies of your thesis made to meet the Doctoral degree requirements at University of Central Placida.

Please re-apply to this department if your dissertation is later accepted for commercial publication and you wish to retain our material.

Best wishes for the successful completion of your work.

Sincoroly, Edward Kaparamian Edward Koparamian Permissions Assistant

Powell, Daniel W.

Eubliner, Roni (NBCUniversa) kroni,lubliner@inbaud.com> From:

Sent: Wednesday, Nevember 2, 2016 12:22 PM

To: Powell, Daniel W.

Subject: RF: Question on a Still Permission...

Hi Daniel,

We only get involved in business licensing. We don't send licenses for Academic use. You should be tine without it.

Fram: Powell, Daniel W. [mailto:Daniel.Powel@fsc].odu]
Sent: Tuesday, November 0:, 2016 6:43 PM
To: Lubiner, Roni (NBCUniversal)
Subject: Question on a Still Permission...

Good Evening,

Please forgive molif I'm not following the correct protocols on requesting permission to use a still shot from Carpenter's They Live for an academic essay. I searched for the property in the archives, but I didn't see how to inquire acoust using the still for academic scholarship (if that's even possible).

Who should I contact on securing that permission?

Thanks, Oantel Powell SSCI

Powell, Daniel W.

From: Paul Boswell sphoswell66@gmail.com>
Sent: Tuesday, August 30, 2016 3:53 AM

To: Powell, Janiel W.

Subject: Re: Question on Your Karsweil Drawing...

If there Danie: thanks for getting in touch, your project sounds interesting and im happy you located my illustration. Yes I am happy for you to include the image in your work, maybe I could see a copy when it is done? Shanks and all the best

Poul

On Mon, Aug 29, 2016 at 8:30 PM, Powell, Daniel W. <<u>Daniel Powell @fscj.edu</u>≥ writer

Good Afternoon Mr. Beswell,

Those this note finds you doing well. I am writing a dissertation research project on horser and digital publication communities, and I'm writing about the M.R. James (ale "Casting the Runes." Hocated your excellent illustration showing Karswell's magic lantern show

(https://www.google.com/search?q=karawei?%27s+slide+sl/ow&espv=2&biw=1536&bih_716&source_lnms_&cbm=isch&sa=X&ved=0ahUKEwjZ19zcr.-

GASKDISYKHISIARC AUByreCiftom=isch&q=karswell%27s_slide1show1M.R. (Tames&impre=1SAcB_AjtKSG(M%3A) and I was wondering if you might give me permission to include it in the project. It would appear in a PDF of the document, and the use would be for academic/scholarly purposes and not communical interests.

Thanks for considering allowing me to use the image. I think it would add to my chapter on technologies and the supernatural.

Best regards,

Daniel Powell

University of Central Florida

REFERENCES

- "About Us." *UCL Institute of Epidemiology and Health Care*. 10 Aug. 2016, www.ucl.ac.uk/whitehallII/about-us.
- "Barry Eisler's 'Detachment' from 'Legacy' Publishing." npr books, 7 Oct. 2011.

 www.npr.org/2011/10/07/141116856/barry-eislers-detachment-from-legacy-publishing.
- "ITU releases 2015 ITC figures: Statistics confirm ITC revolution of the past 15 years." *itu.int*, 26 May 2015. www.itu.int/net/pressoffice/press_releases/2015/17.aspx#.WCu_TforJEa.
- "Living Longer." *Global Health and Aging*. NIH: National Institute on Aging, 22 Jan. 2015, www.nia.nih.gov/research/publication/global-health-and-aging/living-longer.
- "New Stephen King novel from Hard Case Crime." *Titanbooks.com*, 14 Feb. 2013. www.titanbooks.com/blog/new-stephen-king-novel-hard-case-crime/.
- "Views on End-of-Life Medical Treatments." *Pew Research Center*, 21 Nov. 2013, www.pewforum.org/2013/11/21/views-on-end-of-life-medical-treatments/.
- ahhhbee. "Mr. King, what would you say is your worst fear?" r/IAmA. 20 Jun. 2013,

 www.reddit.com/r/IAmA/comments/1gqzn2/i am stephen king novelist executive pro

 ducer_on/.
- Anthony, Sebastian. "Brown University creates first wireless, implanted brain-computer interface." *ExtremeTech*, 4 Mar. 2013. www.extremetech.com/extreme/149879-brown-university-creates-first-wireless-implanted-brain-computer-interface.
- Bailey, Dale. American Nightmares: The Haunted House Formula in American Popular Fiction.

 Bowling Green State University Popular Press, 1999. Print.
- ---. Personal interview. 23 May 2016.

- Barnum, Peter, and Brad Neuman. "AI Experts On The Reality Behind The Sci-Fi Thriller "Transcendence." *TechCrunch*, 20 Apr. 2014, www.techcrunch.com/2014/04/20/transcending-artificial-intelligence/.
- Bascom, William. "The Forms of Folklore: Prose Narratives." *The Journal of American Folklore*Mar. 1965, pp. 3-20. www.jstor.org.db08.linccweb.org/stable/538099.
- Bath, John and Scott Schofield. "The digital book." *The Cambridge Companion to the History of the Book*. Ed. Leslie Howsam. Cambridge University Press, 2015. 181-93.
- Bell, Emily. "Who owns the news consumer: social media platforms or publishers?" *Columbia Journalism Review*, 21 Jun. 2016,

 www.cjr.org/tow_center/platforms_and_publishers_new_research_from_the_tow_center.

 php?utm_content=bufferee8f0&utm_medium=social&utm_source=twitter.com&utm_ca_mpaign=buffer.
- Bendix, Regina. *In Search of Authenticity: The Formation of Folklore Studies*. University of Wisconsin Press, 1997.
- Benioff, David, and D.B. Weiss. "You Win or You Die." Game of Thrones, HBO, 2011.
- Benjamin, Walter. "The Work of Art in the Age of Mechanical Reproduction." Eng. trans. 1939. 23 Sep. 2004, www.web.mit.edu/allanmc/www/benjamin.pdf.
- Bird, S. Elizabeth. "Playing With Fear: Interpreting the Adolescent Legend Trip." *Western Folklore*, vol. 53, no. 3, Jul. 1994, pp. 191-209, jstor.org/stable/1499808.
- Birkerts, Sven. "Into the Electronic Millennium." *Boston Review*, Oct. 1991, www.new.bostonreview.net/archives/BR16.5/birkerts.html.
- Bizzell, Patricia and Bruce Herzberg. *The Rhetorical Tradition: Readings from Classical Times* to the Present. Bedford, 1990. Print.

- Bolter, Jay David. Writing Space: Computers, Hypertext, and Remediation of Print. 2nd ed., Routledge, 2011.
- Booker, Chris. The Seven Basic Plots: Why we tell stories. Continuum, 2004. Print.
- Boseley, Sarah. "Memory loss can begin from age 45, scientists say." *The Guardian*, 5 Jan. 2012, www.theguardian.com/science/2012/jan/06/memory-loss-begins-at-45-says-study.
- Brophy, Philip. "Horrality—The Textuality of Contemporary Horror Films." *Screen*, vol. 27, no. 1, Winter 1986, pp. 2-13. John C. Hitt Library, University of Central Florida, ILL.
- Carpenter, John. They Live. Universal Studios Home Entertainment, 23 Sep. 2003.
- Carroll, Noël. The Philosophy of Horror, or Paradoxes of the Heart. Routledge, 1990. Print.
- Carvajal, Doreen. "Long Line Online for Stephen King E-Novella." *The New York Times*, 16 Mar. 2000. *ProQuest*. Web.
- Chandler, Daniel. "An Introduction to Genre Theory." 1997. PDF.
- Cherry, Brigid. "Subcultural Tastes, Genre Boundaries and Fan Canons." *The Shifting Definitions of Genre: Essays on Labeling Films, Television Shows and Media*, edited by Lincoln Geraghty and Mark Jancovich, McFarland, 2008, pp. 201-15.
- Clark, Krissy. "The GPS: A Fatally Misleading Travel Companion." NPR, 26 Jul. 2011, www.npr.org/2011/07/26/137646147/the-gps-a-fatally-misleading-travel-companion?sc=tw&cc=share.
- Colatrella, Carol. "On Technology and Humanity." *Critical Insights: Technology and Humanity*. Salem Press, 2013.
- Cruz, Clarissa. "Riding' High." Entertainment Weekly, (2000). LINCCWeb. Web.
- Datlow, Ellen. Personal interview. 27 Apr. 2016.
- De Caro, Frank. An Anthology of American Folktales and Legends. Routledge, 2015. Print.

- Dickstein, Morris. "The Aesthetics of Fright." *Planks of Reason: Essays on the Horror Film*.

 Grant, Barry Keith, and Christopher Sharrett, eds. Scarecrow Press, 2004, pp. 50-62.

 Print.
- Dillow, Clay. "Billionaires: Russian Mogul Wants To Upload Your Brains Into Immortality." Popular Science, 19 Jul. 2012. www.popsci.com/science/article/2012-07/billionaires-russian-mogul-wants-upload-your-brains-immortality.
- Donnelly, Elisabeth. "How Amazon and 'Fifty Shades of Grey' Created a Golden Age for Self-Published Romance Authors—and Why It May Already Be Over." *Flavorwire*, February 13, 2015. www.flavorwire.com/504084/how-amazon-and-fifty-shades-of-grey-created-agolden-age-for-self-published-romance-authors-and-why-it-may-already-be-over.
- Dretzin, Rachel, and Douglas Rushkoff. *Digital Nation. Frontline*, 2 Feb. 2010, www.pbs.org/wgbh/frontline/film/digitalnation/.
- Dreyfus, Hubert, and Sean Dorrance Kelly. *All Things Shining: Reading the Western Classics to Find Meaning in a Secular Age*. Free Press, 2011.
- Dundes, Alan. Interpreting Folklore. Indiana University Press, 1980.
- Effron, Lauren, and Kelley Robinson. "Slender Man Stabbing Survivor's Parents: 'She's Meant to Do Something Special." *ABC News*, 26 Sep. 2014, www.abcnews.go.com/US/slender-man-stabbing-survivors-parents-describe-horrific-ordeal/story?id=25787516.
- Ex Machina. Dir. Alex Garland. Perf. Alicia Vikander, Domhnall Gleeson, and Oscar Isaac.Universal Pictures. 2015. Amazon Prime Videos.
- Farrington, Joshua. "Digital Disruption 'Speeding Up." The Bookseller, 24 May 2013.

- Field, M.J., and C.K. Cassel, eds. "A Profile of Death and Dying in America." *Approaching Death: Improving Care at the End of Life*, National Academies Press, 1997.

 www.ncbi.nlm.nih.gov/books/NBK233601/.
- Fortner, Robert S. "Lewis Mumford: *Technics, Civilization, and Media Theory.*" *The Handbook of Media and Mass Communication Theory*, eds. Robert S. Fortner and P. Mark Fackler, Wiley, 2014, vol. 1.
- Foucault, Michel. *The Order of Things: An Archeology of the Human Sciences*. Routledge

 Classics, 2002.

 www.beautifuldata.metalab.harvard.edu/2014/pdfs/readings/Foucault_The-Order-ofThings.pdf.
- Frank, Pat. Alas, Babylon. Harper Perennial: Modern Classics, 2005. Print.
- Frank, Russell. *Newslore: Contemporary Folklore on the Internet*. University Press of Mississippi, 2011.
- Freud, Sigmund. "Beyond the Pleasure Principle." *Beyond the Pleasure Principle: Group Psychology and Other Works*. University of Florida: College of Liberal Arts and Sciences, 4 Feb. 2016. PDF.
- ---. "The Uncanny." M.I.T. PDF.
- Garcia, Albert. "Unrest in Peace!" Calliope, vol. 22, no. 2, 2011. LINCCWeb. Web.
- Gee, James Paul. "Games and Education Scholar James Paul Gee on Video Games, Learning, and Literacy." *DML Research Hub*, 4 Aug. 2011. youtube.com/watch?v=LNfPdaKYOPI.
- Gelernter, David. "Computers and the Pursuit of Happiness." *Commentary Magazine*, 1 Jan. 2001, www.commentarymagazine.com/articles/computers-and-the-pursuit-of-happiness/.

- Gibson, Caitlin. "A whisper, then tingles, then 87 million YouTube views: Meet the star of ASMR." *The Washington Post*, 15 Dec. 2014.

 www.washingtonpost.com/lifestyle/style/a-whisper-then-tingles-then-87-million-youtube-views-meet-the-star-of-asmr/2014/12/12/0c85d54a-7b.
- Green, Ronald M. "Building Baby from the Genes Up." *The Washington Post*, 13 Apr. 2008, www.washingtonpost.com/wp-dyn/content/article/2008/04/11/AR2008041103330.html.
- Harada, Caroline N., et al. "Normal Cognitive Aging." *HHS Public Access Journals at the National Center for Biotechnology Information*, Nov. 2013, www.ncbi.nlm.nih.gov/pmc/articles/PMC4015335/.
- Heidegger, Martin. "The Question Concerning Technology." *Basic Writings*, edited by David Farrell Krell, Harper, 1993, pp. 308-41.
- Hernandez, Patricia. "*Pokémon's* Creepy Lavender Town Myth, Explained." *Kotaku*, 23 Oct. 2015, www.kotaku.com/pokemons-creepy-lavender-town-myth-explained-1651851621.
- *Horror Fiction Review, The.* www.thehorrorfictionreview.blogspot.com/.
- Howard, Robert Glenn. "Vernacular Authority: Critically Engaging 'Tradition." *Tradition in the Twenty-First Century: Locating the Role of the Past in the Present*. Utah State University Press, 2013.
- Itoh, Project. Harmony, Haikasoru/VIZ Media, 2010. Kindle.
- James, M.R. "Casting the Runes." *More Ghost Stories of an Antiquary*. The University of Adelaide Library, 1 Dec. 2014.

 www.ebooks.adelaide.edu.au/j/james/mr/more/chapter4.html.
- Jenkins, Henry. *Convergence Culture: Where New and Old Media Collide*. New York University Press, 2006.

- Jentsch, Ernst. "On the Psychology of the Uncanny." Penn State University, 1906. PDF.
- Johnston, Adrian. "Jacques Lacan." *Stanford Encyclopedia of Philosophy*, 2 Apr. 2013. www.plato.stanford.edu/entries/lacan/#LibEco.
- Joshi, S.T. "Howard Phillips Lovecraft: The Life of a Gentleman of Providence." *The H.P. Lovecraft Archive*, 28 Mar. 2006. www.hplovecraft.com/life/biograph.aspx.
- Kass, Leon R. "Ageless Bodies, Happy Souls: Biotechnology and the Pursuit of Perfection." *The New Atlantis: A Journal of Technology and Science*, vol. 1, no. 1, Spring, 2003, www.thenewatlantis.com/publications/ageless-bodies-happy-souls.
- Keen, Andrew. "Web 2.0: The second generation of the Internet has arrived. It's worse than you think." The Weekly Standard, 14 Feb. 2006. www.weeklystandard.com/web-2.0/article/7898.
- Keyworth, G. David. "Was the Vampire of the Eighteenth Century a Unique Type of Undead-corpse?" *Folklore*, vol. 117, no. 3, 2006, pp. 241-60. *Academic Search Complete*. Web.
- Kiberd, Roisin. "Horror ASMR Will Give You Tingles and Chills." *Motherboard*, 3 Feb. 2016. www.motherboard.vice.com/read/horror-asmr-will-give-you-tingles-and-chills.

King, Stephen. 1922. Full Dark, No Stars. Scribner, 2010. 1-132. Print.

- ---. Cell. Scribner, 2006.
- ---. Danse Macabre. Everest House, 1981.
- ---. On Writing: A Memoir of the Craft. Scribner, 2000.
- ---. "Rainy Season." Nightmares and Dreamscapes. Viking, 1993. 413-37. Print.
- ---. "The End of the Whole Mess." *Nightmares and Dreamscapes*. Viking, 1993.
- ---. "The Horror Writer Market and the Ten Bears: A True Story." *Secret Windows: Essays and Fiction on the Craft of Writing*. Book-of-the-Month Club, 2000.

- ---. The Running Man. The Bachman Books, Signet, 1986.
- Kirkland, Bruce. "Low-budget horrors very trendy and profitable." *The Toronto Sun*, 5 Jun. 2013. www.torontosun.com/2013/06/05/low-budget-horrors-very-trendy-and-profitable.
- Kirkpatrick, David D. "A Literary Award for Stephen King." *The New York Times*, 15 Sep. 2003. www.nytimes.com/2003/09/15/books/a-literary-award-for-stephen-king.html.
- Klems, Brian. "How Hugh Howey Turned His Self-Published Story 'Wool' Into a Success (& a Book Deal)." Writer's Digest, January 23, 2014. www.writersdigest.com/online-editor/how-hugh-howey-turned-his-self-published-story-wool-into-a-success-a-book-deal.
- Knudson, Tom. "Death by GPS' in desert." *The Sacramento Bee*, 30 Jan. 2011, www.sacbee.com/entertainment/living/travel/article2573180.html.
- Koenig, Sarah. "Judge Orders New Trial for Adnan Syed." *Serial*, 5 Jul. 2016, www.serialpodcast.org/posts/2016/07/judge-orders-new-trial-for-adnan-syed.
- Konrath, J.A. "The Tsunami of Crap." A Newbie's Guide to Publishing, 5, Jul. 2011. www.jakonrath.blogspot.com/2011/07/tsunami-of-crap.html.
- Koontz, Dean. "Introduction." "They're Here...": Invasion of the Body Snatchers, A Tribute.

 Berkley Boulevard, 1999. Print.
- Kowalewski, Kirsten. Personal interview. 18 Jul. 2016.
- Kroft, Steve, prod. "The Cost of Dying." 60 Minutes, 19 Nov. 2009, www.cbsnews.com/news/the-cost-of-dying/.
- Kwok, Roberta. "Crowdsourcing for Shakespeare." *The New Yorker*, 16 Jan. 2017, www.newyorker.com/tech/elements/crowdsourcing-for-shakespeare.

- Ladouceur, Liisa. *How to Kill a Vampire: Fangs in Folklore, Film and Fiction*. ECW Press, 2013.
- Lanham, Richard. *The Economics of Attention: Style and Substance in the Age of Information*.

 The University of Chicago Press, 2006.
- Levinson, Paul. New New Media. Pearson, 2013.
- Lindahl, Carl. "Ostensive Healing: Pilgrimage to the San Antonio Ghost Tracks." *The Journal of American Folklore*, vol. 118, no. 468, Spring 205, pp. 164-185. *JSTOR*, jstor.org/stable/4137700.
- Liu, Ken. "The Gods Will Not Be Chained." *The End is Nigh (Apocalypse Triptych Book 1)*.

 Kindle ed. Broad Reach Publishing. 1 Mar. 2014.
- ---. Personal Interview, 5 Mar. 2016.
- London, Sondra. True Vampires: Blood-Sucking Killers Past and Present. Feral House, 2004.
- Long, Tony. "Jan. 25, 1921: Robots first Czech In." Wired Magazine, 25 Jan. 2011. www.wired.com/2011/01/0125robot-cometh-capek-rur-debut/.
- Louv, Richard. Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder.

 Updated and expanded, Algonquin, 2008.
- Lovecraft, H.P. "Supernatural Horror in Literature." *The H.P. Lovecraft Archive*, 20 Oct. 2009. www.hplovecraft.com/writings/texts/essays/shil.aspx.
- Lukianoff, Greg, and Jonathan Haidt. "The Coddling of the American Mind." *The Atlantic*, Sep. 2015, www.theatlantic.com/magazine/archive/2015/09/the-coddling-of-the-american-mind/399356/.

- Lunau, Kate. "The Human Lifespan Has a Natural Limit. Scientists Might Know How to Break It." *Motherboard*, 5 Oct. 2016, www.motherboard.vice.com/read/longevity-lifespan-centenarians-gene-hacking-anti-aging?utm_source=mbtwitter.
- Magistrale, Tony. Personal interview. 27 Apr. 2016.
- Mamatas, Nick. Personal interview. 7 May 2016.
- Mancuso, Vinnie. "'Making a Murderer' Is an Actual American Horror Story, More Haunting Than 'The Jinx." *Observer*, 23 Dec. 2015, www.observer.com/2015/12/making-a-murderer-is-an-actual-american-horror-story-more-haunting-than-the-jinx/.
- Matyszczyk, Chris. "Jeopardy' III: Watson HALs his way with the humans." *c*|*net*, 16 Feb. 2011. www.cnet.com/news/jeopardy-iii-watson-hals-his-way-with-the-humans/.
- McKenzie, D. F. *Bibliography and the Sociology of Texts*. Cambridge University Press, 1999. Ebook ed. (2004). *LINCCWeb*. Web.
- McLuhan, Marshall. "Excerpt from *Understanding Media*: Automation." *Future Media*. Edited by Rick Wilber, Tachyon, 2011. 420-431.
- Mike. "TNT Announces The Return of Tales from the Crypt." *Horrorfreak News*, 4 Aug. 2016, www.horrorfreaknews.com/tales-of-the-crypt-returns/11114.
- Miller, Lisa. "Slender Man Is Watching." *New York Magazine*, 25 Aug. 2015, www.nymag.com/daily/intelligencer/2015/08/slender-man-stabbing.html.
- Monaghan, Peter. "Taking a Slash at Horror." *The Chronicle of Higher Education*, 22 Jul. 2010. www.chronicle.com/blogs/pageview/taking-a-slash-at-horror/25717.
- Morrison, Michael A. "After the Danse: Horror at the End of the Century." Magistrale, Tony, and Michael A. Morrison, eds. *A Dark Night's Dreaming: Contemporary American Horror Fiction*. University of South Carolina Press, 1996.

- ---. Personal interview. 20 Jun. 2016.
- Murray, Janet H. "Inventing the Medium." *The New Media Reader*. Eds. Noah Wardrip-Fruin and Nick Montfort. The MIT Press, 2003. 3-11.
- Mwangaguhunga, Ron. "Why Are DIY Horror Films Thriving?" Tribeca, 27 Sep. 2013.

 www.tribecafilm.com/stories/diy-horror-the-conjuring-paranormal-model-jason-blum.
- Newitz, Annalee. "Who is 'Jeff the Killer?' And is his picture haunted by a real death?" *iO9*, 5 Aug. 2013, www.io9.gizmodo.com/who-is-jeff-the-killer-and-is-his-picture-haunted-by-1016241494.
- Nolan, William F., and George Clayton Johnson. Logan's Run. Buccaneer Books, 1967.
- Norman, Donald A. Living With Complexity. The MIT Press, 2011. Print.
- Nussbaum, Emily. "What About Bob? The strange allure of Robert Durst and 'The Jinx." *The New Yorker*, 23 Mar. 2015, www.newyorker.com/magazine/2015/03/23/what-about-bob.
- O'Brien, Elizabeth. "Zines: A Personal History." *New England Review*, vol. 33, no. 2, 2012, pp. 89-99. *ProQuest*. Web.
- Oates, Joyce Carol. "The Aesthetics of Fear." *Salmagundi*, Fall 2015/Winter 2016, pp. 659+.
- Ohlendorf, Roman. "Ostension and Extra-Textual Production in *Minecraft*." Online—Heidelberg Journal of Religions on the Internet, vol. 10, 2016, pp. 27-45, www.heiup.uni-heidelberg.de/journals/index.php/religions/article/view/23547.
- Opam, Kwame. "Serial' breaks iTunes record for fastest podcast to reach 5 million downloads and streams." *The Verge*, 18 Nov. 2013, www.theverge.com/2014/11/18/7241715/serial-breaks-itunes-record-for-fastest-podcast-to-reach-5-million.

- Owens, Trevor. "Born Digital Folklore and the Vernacular Web: An Interview with Robert Glenn Howard." *The Signal*, 22 Feb. 2013. www.blogs.loc.gov/thesignal/2013/02/born-digital-folklore-and-the-vernacular-web-an-interview-with-robert-glenn-howard/.
- Perrin, Andrew and Maeve Duggan. "Americans' Internet Access: 2000-2015." Pew Research Center, 26 Jun. 2015. www.pewinternet.org/2015/06/26/americans-internet-access-2000-2015/.
- Peverill-Conti, Greg, and Brad Seawell. "The Gutenberg Parenthesis: Oral Tradition and Digital Technologies." *MIT Communications Forum*, 1 Apr. 2010. www.web.mit.edu/comm-forum/forums/gutenberg_parenthesis.html.
- Postman, Neil. Amusing Ourselves to Death: Public Discourse in the Age of Show Business. 20th anniversary ed., Penguin, 2005.
- Qing, Dai. "Relaxing China's One-Child Policy." *The New York Times*, 12 Jun. 2015. www.nytimes.com/2015/06/13/opinion/relaxing-chinas-one-child-policy.html.
- Rodriguez, Manuel S. Almeida. "Some Notes on the Tragic Writing of Antonio Gramsci [English]." *International Gramsci Journal*, vol. 1, no. 2, 2010, www.ro.uow.edu.au/cgi/viewcontent.cgi?article=1010&context=gramsci.
- Roy, Jessica. "Behind Creepypasta, the Internet Community That Allegedly Spread a Killer Meme." *Time*, 3 Jun. 2014, www.time.com/2818192/creepypasta-copypasta-slenderman/.
- Salomon, Mikael, director, and Lawrence D. Cohen, writer. "The End of the Whole Mess." Nightmares and Dreamscapes: From the Stories of Stephen King. TNT, 2006.
- Sauerberg, Lars Ole. "The Gutenberg Parenthesis—Print, Book and Cognition." *ORBIS Litterarum*, vol. 64, no. 2, 2009, pp. 79-80.

- Scalzi, John. Lock In: A Novel of the Near Future. Tor, 2014.
- Schlesinger, Jr., Arthur. The Cycles of American History. Mariner, 1999.
- Seed. David. Science Fiction: A Very Short Introduction. Oxford University Press, 2011.
- Segal, David. "This Man Is Not a Cyborg. Yet." *The New York Times*, 1 Jun. 2013. www.nytimes.com/2013/06/02/business/dmitry-itskov-and-the-avatar-quest.html.
- Serling, Rod. "The Monsters Are Due on Maple Street." *The Twilight Zone*. Perf. Claude Akins, Barry Atwater, and Jack Weston. Image Entertainment, 2006. DVD.
- Shahani, Aarti. "From Hate Speech To Fake News: The Content Crisis Facing Mark

 Zuckerberg." NPR, 17 Nov. 2016,

 www.npr.org/sections/alltechconsidered/2016/11/17/495827410/from-hate-speech-tofake-news-the-content-crisis-facing-mark-zuckerberg.
- Smith, Andrew. *The Ghost Story 1840-1920: A Cultural History*. Manchester University Press, 2010. *EBSCOhost*. Web.
- Springhall, John. "'Disseminating impure literature': the 'penny dreadful' publishing business since 1860." *Economic History Review*, 1994, pp. 567-84. *Academic Search Complete*. Web.
- Stafford, Jeff. "Invasion of the Body Snatchers (1956)." Turner Classic Movies, www.tcm.com/this-month/article/86561%7C0/Invasion-of-the-Body-Snatchers.html.
- Stedman, Amanda. "The Walking Dead' Becomes Basis for College Class." *Variety*, 4 Sep. 2013. www.variety.com/2013/tv/news/the-walking-dead-college-course-uc-irvine-1200589268/.

- Swoyer, Chris. "Relativism." *The Stanford Encyclopedia of Philosophy*. (Winter 2014 Edition), Edward N. Zalta (ed.). 11 Sep. 2015, www.plato.stanford.edu/entries/relativism/#descriptiverelativism.
- Thacker, Eugene. In the Dust of This Planet: Horror of Philosophy, vol. 1. Zero Books, 2011.

 Print.
- The Radio Ghost. *Mercury Theatre on the Air: Dracula*. MP3. www.sounds.mercurytheatre.info/mercury/380711.mp3.
- Tiffany, Kaitlyn. "HBO's Slenderman documentary grapples with troubled teens getting lost online." *The Verge*, 14 Mar. 2016, www.theverge.com/2016/3/14/11219112/beware-the-slenderman-premiere-hbo-documentary-sxsw-2016.
- Tivnan, Tom. "New Voices." Futurebookconference2014.com, n.d. LINCCWeb Databases.
- Turkle, Sherry. Alone Together: Why We Expect More from Technology and Less from Each Other. Basic, 2011. Print.
- ---. "Connected, but alone?" *TED.com*, Feb. 2012,

 www.ted.com/talks/sherry_turkle_alone_together?language=en.
- Turvey, Marcus. "Philosophical Problems Concerning the Concept of Pleasure in the Pscyhoanalytical Theories of (the Horror) Film." *Horror Film and Pscyhoanalysis:*Freud's Worst Nightmare. Cambridge University Press, 2004, pp. 68-83.
- Twilight Zone: The Movie. Dir. Dante, Joe, et al. Perf. Dan Aykroyd, Albert Brooks, and Vic Morrow. Warner Home Video, 2007. DVD.
- Vinge, Vernor. "The Coming Technological Singularity: How to Survive in the Post-Human Era." San Diego State University Libraries, 1993, www-rohan.sdsu.edu/faculty/vinge/misc/singularity.html.

- Wagmeister, Elizabeth. TNT Officially Greenlights 'Tales From the Crypt,' Plus New Pilot for M. Night Shyamalan Horror Block." *Variety*, 14 Apr. 2016.

 www.variety.com/2016/tv/news/tnt-horror-block-tales-from-the-crypt-m-night-shyamalan-time-of-death-creatures-1201753880/.
- Walsh, Peter. "That Withered Paradigm: The Web, the Expert, and the Information Hegemony."

 Media and Democracy, Seawell, Brad, et al., eds., The MIT Press, 2003.
- Wariner, Marina. No Go the Bogeyman: Scaring, Lulling, and Making Mock. Vintage, 2000.
- Westen, Drew. "The Scientific Legacy of Sigmund Freud: Toward a Psychodynamically Informed Psychological Science." *Psychological Bulletin*, vol. 124, no. 3, pp. 333-71, 1998.
- Wharton, Edith. "Afterward." *Tales of Men and Ghosts*. Project Gutenberg, 15 Apr. 2015. www.gutenberg.org/ebooks/4514?msg=welcome_stranger#link2H_4_0009.
- ---. "Preface." The Ghost Stories of Edith Wharton. Scribner, 1st paperback ed., 1997. Print.
- White, Martha C. "Hasbro Thinks Robot Pets Make Great Companions for Lonely Old People." *Time Magazine*, 18 Nov. 2015. www.time.com/money/4117995/robot-pets-old-people/.
- Wilt, Napier. "Poe's Attitude Toward His Tales: A New Document." *Modern Philology*, Aug. 1927, pp. 101-05. *JSTOR*. Web.
- Winter, Douglas E. "The Pathos of Genre." Dark Echo Horror, 1999. www.darkecho.com/darkecho/darkthot/pathos.html.