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# UNDERSTANDING LISTS:

# UMBERTO ECO'S RHETORIC OF COMMUNICATION AND SIGNIFICATION

#### A Dissertation

Submitted to the McAnulty College of Liberal Arts

Duquesne University

In partial fulfillment of the requirements for the degree of Doctor of Philosophy

By

Susan Mancino

May 2018

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Susan Mancino

#### Susan Mancino

# "Understanding Lists: Umberto Eco's Rhetoric of Communication and Signification"

Degree: Doctor of Philosophy

February 2, 2018

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#### **ABSTRACT**

#### **UNDERSTANDING LISTS:**

#### UMBERTO ECO'S RHETORIC OF COMMUNICATION AND SIGNIFICATION

By

Susan Mancino

May 2018

Dissertation supervised by Dr. Ronald C. Arnett

This project, *Understanding Lists: Umberto Eco's Rhetoric of Communication and Signification*, begins and ends with an observation and warning suggested throughout Eco's work: lists are the origin of culture and the Internet as the Mother of All Lists threatens to end culture. To understand this warning, I turn to Eco's work on lists, contextualized within a 2009 exhibition at the Musée du Louvre and in an illustrated collection, *The Infinity of Lists*. This project offers an analysis of Eco's understanding of lists concurrent to his commentary on the social and cultural implications of the algorithmic-obsessed Internet age. To understand his argument, this project collects hints of insight through his corpus. In Eco's cultural aesthetics, he celebrates the notion of openness that invites and encourages audience participation in the interpretation of texts with multiple possibilities. With his interpretive semiotics, Eco offers a theory of culture grounded in signification and communication. Signification consists of the

codes of culture that make meaning and interpretive response possible. Communication is the labor of sign production and interpretation. Throughout his literary praxis, Eco implements these theoretical notions into story-form, and with his fifth novel, *The Mysterious Flame of Queen Loana*, affirms the mutual necessity of communication and signification. Ultimately, Eco urges us to list as a response to the threats of algorithmic processing of big data that displaces and replaces the human interpreter. For Eco, listing a form of communication that requires the labor to wade through information, activate codes of signification, and interpret cultural meaning.

# DEDICATION

To my family.

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#### Chapter 1:

Umberto Eco and the Field of Communication: Uncovering and Preserving Human Meaning

This project articulates the work of Umberto Eco, who offers a historical perspective of the practice of collecting, recognizing it as the origin of culture with poetic and pragmatic aims (Eco, Beyer, and Gorris, par. 2). However, for Eco, the collection of information on the World Wide Web becomes the "Mother of All Lists" with dangerous implications for human culture (Infinity 360). His work suggests that algorithmic processing of big data threatens to onset the end of culture by limiting human involvement in signification and communication (Bankov). For Eco, signification is human meaning making via interpretive insight, distinct from communication, which centers on the embodied transfer of information from sender to receiver (*Theory*). While the vernacular of the field of communication often refers to communication as encompassing both information transfer and interpretation, Eco distinguishes these tasks with signification, not communication, prompting interpretive response. Eco's project emphasizes the importance of signification in securing interpretive response and cultural meaning as well as the simultaneous value of communication as the labor that activates and enriches meaning shared between and among human interpreters. Eco cautions that the algorithm governance of Internet acts as a potential inhibitor of human meaning by limiting the viability of communication and signification. This project responds to the questions: what is the role of signification and

<sup>&</sup>lt;sup>1</sup> This project aims to announce Eco's relevance to the field of communication, recognizing that his use of the term *communication* differs from its use by professional associations, academic journals, and scholars throughout the field. While this distinction receives further attention later in the project, for clarity I use the term "communication" when referring to Eco's theory of sign production rooted in the embodied labor of information transfer, and "field of communication" when following the presupposition that communication embraces both message transfer and engagement with meaning.

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communication in the Internet age and how can we protect and promote human meaning in the midst of new technological trends? To answer these questions, this project turns to Eco's rhetoric of signification and communication to understand lists as a performative practice enriching human meaning.

#### 1.1. Introduction

Eco's work identifies the intersections of signification and culture in the engagement of meaningful human communication. He recognizes lists, broadly conceived in visual, material, literary, artistic, and institutional forms, as forming sites of signification and human meaning. In his 2009 work, *The Infinity of Lists*, and its corresponding exhibition in the Musée du Louvre in Paris, France, Eco identifies historical and contemporary standard bearers of lists, with algorithmic processing of big data in the Internet age as the "Mother of All Lists" (360)—what I interpret as Eco's framing as a penultimate collection, which threatens an end to culture, and thus, signification and communication. This proposal articulates the importance of Eco for the field of communication, identifying the central metaphors of his work that provide a background to understanding the signifying power of human collection practices with the hope of seeking a pathway to preserving signification in the Internet age.

This proposal positions Eco's project and his relevance within the field of communication. The proposal's first section, "Umberto Eco: Intellectual Biography," overviews Eco's life and work, emphasizing his contributions to interpretive semiotics. This section offers a biographical sketch of Eco within the context of his work and theoretical engagement with

<sup>&</sup>lt;sup>2</sup> This essay recognizes that Eco's use of the term *communication* for mechanistic information transfer does not coincide with communication as discussed by scholars in the field. For a description of the field of communication, see Robert T. Craig's "Communication Theory as a Field," which identifies the following seven traditions as expressing the breadth of study under the name "communication": rhetorical, semiotic, phenomenological, cybernetic, sociopsychological, sociocultural, and critical.

understanding the interpretive engagement of text and reader. The second section, "Umberto Eco within the Field of Communication," acts as a literature review exploring references to Eco in regional, national, and international communication journals.<sup>3</sup> Finally, "Pathways to Preserving Signification and Communication in an Internet Age," previews the remainder of this project with a chapter-by-chapter outline. This section identifies the central coordinates provided by Eco and seeks a performative response to preserving signification and communication in the Internet age. Together, these sections articulate the relevance of Eco's project as a theoretical foundation behind the questions that fuel this investigation: what is the role of human signification and communication in the Internet age and how can we protect and promote human meaning in the midst of new technological trends?

This project approaches collecting as a performative communication ethics practice that reveals what matters in the creation and interpretation of human meaning (signification).

Communication ethics, consisting of practices and substantial goods, concerns the protection and promotion of ethical commitments that are emergent, situated, and performed within historical moments (Arnett, Fritz, and Bell). Eco's work articulates the importance of collecting for culture and human meaning making, cautioning the ways in which the Internet acts as a totalizing collection that puts signification and communication at risk. Collecting actively announces what requires protection and promotion as a performative investment in the material products of cultural and historical signification. For Eco, signification requires human interpretation, action, and responsibility. This investigation uncovers what is at stake in an era dominated by the technique of big data and the potential loss of cultural human meaning. Eco articulates the signifying power of collections and simultaneously cautions against minimizing collecting to the

<sup>&</sup>lt;sup>3</sup> "Appendix A" offers a complete list of the communication journals surveyed, and "Appendix B" includes a full reference list of articles referring to Eco, chronologically ordered.

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accumulation of data. Instead, Eco offers an interpretive approach to collecting as a performative enactment of a hypertextual world ("Books").

Hypertextuality embraces multiple texts and historical moments as co-present; hypertextuality resists the hypermodern impulse to frame postmodernity as nihilistically uprooted from tradition and narrative ground. Instead, Eco portrays a postmodern world composed of multiple and diverse positions situated in the co-presence of hypertexts. Eco's hypertextual portrayal enlivens the power of signification by activating an array of avenues that ground human communication in history and culture. In this manner, hypertextuality accepts multiplicity in interpretive response (signification) and the human labor of information exchange (communication) based upon acknowledging diverse eras, texts, and interpretations as simultaneously emergent. Eco's intellectual biography provides a contextual background that lends insight into the hypertextual possibilities contained within his work.

### 1.2 Umberto Eco: Intellectual Biography

This project follows Eco's hypertextual work with acknowledgement of his ability to walk within multiple eras. Eco's intellectual biography reveals an educational background that encompasses expertise in multiple historical eras and spans across disciplinary boundaries. From his Catholic upbringing and his training in the philosophical aesthetics of the Middle Ages to interest in James Joyce and Jorge Luis Borges, Eco presents a theory of general semiotics deeply rooted in cultural consideration. This section provides an overview of Eco's background to frame his relevance for human communication and signification.

<sup>&</sup>lt;sup>4</sup> For more information on the connections between hypertextuality, postmodernity, and their implications for the field of communication, see Ronald C. Arnett's "Public Relations: Levinas' Call for Ethics and Justice."

Eco was a renowned Italian semiotician, philosopher, public intellectual, novelist, and literary critic. He fluently spoke Italian, English, Spanish, French, and German and was a rare book collector with a library of over 50,000 titles. He was born in 1932, in Alessandria, Italy, in the region located centrally between Genova, Milan, and Turin in an area named Piedmont. His surname is thought to be an acronym for *ex caelis oblatus*, translated from Latin as gift from heaven; a name granted by a city official to his paternal grandfather who was found as an abandoned infant (Buchanan 141). His father, Giulio Eco, was an accountant, drafted for military service during three wars. During World War II, Eco lived with his mother Giovanna in the Piedmontese mountainside. His early schooling provided Catholic education from the Salesian Congregation of Saint John Bosco. This Catholic background greatly influenced Eco and his works despite his departure from the church when he was twenty-two

Eco's experiences in Catholic Action influenced his eventual turn from Catholicism to a "humanist secularism" (Caesar 1). Eco was active in the Gioventù Italiana di Azione Cattolica, a youth group affiliated with the Catholic Church. Within this group, Eco worked closely with Mario Rossi, who had been appointed president in 1951. Under Rossi's leadership, the group advocated for more liberal policies for Catholic youth. These policies prompted Rossi's forced resignation and Eco's decision to leave the group. Discouraged by the conservative emphasis of the church (Bondanella 2), Eco left Catholicism during his graduate studies at the University of Turin.

<sup>&</sup>lt;sup>5</sup> The intellectual sketches of two premiere Eco scholars, Peter Bondanella and Michael Caesar, provide essential biographical information to understanding the sources that frame Eco's project. Bondanella's *Umberto Eco and the Open Text* provides a carefully researched and detailed intellectual biography of Eco's project tied to the exchange between and among reader, interpretation, and text. Caesar's *Umberto Eco: Philosophy, Semiotics and the Work of Fiction* provides an intellectual sketch beginning with Eco's early work in the 1960s on aesthetics and its connection to art an popular culture. Caesar's overview extends to the 1990s.

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Eco entered the University of Turin studying medieval philosophy and literature with Catholic philosopher Luigi Pareyson; he received his degree in philosophy in 1954. His thesis on St. Thomas Aquinas later became his first book, *The Aesthetics of Thomas Aquinas*, published in 1956 in Italian and translated to English in 1988. After graduating, Eco served as the editor of the RAI (Radiotelevione Italiana), a state broadcasting station. This position facilitated his participation in the cultural life of Milan in the mid-twentieth century and led to two of his early books: (1) *The Open Work*, published in 1962, the same year he married a German art teacher, Renate Ramge, with whom he had a son and daughter, and (2) *Apocalyptic and Integrated Intellectuals* in 1964. These works secured Eco's position as a public intellectual in Italy and announced the connections between and among three of his central interests: "medieval scholasticism, avant-garde art and contemporary popular culture" (Caesar 1). These works, which serve as foundational to his thought, surfaced before the emergence of Eco's semiotic theory in the mid-1960s.

Eco's focus on developing a theory of semiotics corresponded with his academic appointments in Italian higher education. His academic appointments began at Turin University (1961–1964). In 1966, Eco accepted a position at the University of Florence (1966–1969), and then moved to Milan Polytechnic (1969–1971). At these institutions, he taught aesthetics, semiotics, and architecture. In 1971, he began his appointment as the first chair of semiotics at the University of Bologna; Eco's affiliation with this university continued until his death in 2016.

While Eco's debut in semiotics began in the 1960s, his *A Theory of Semiotics* did not appear until the mid-1970s, at the time of his tenure as the General Secretary of the International Association for Semiotic Studies (IASS). *A Theory of Semiotics* was Eco's first work to appear in

English and the inaugural volume in the Indiana University Press series, "Advances in Semiotics," edited by the renowned Hungarian-born American semiotician Thomas Sebeok who is known for his work with biosemiotics. Along with Sebeok and others, Eco was a founding member of *Semiotica*, the official journal of the IASS.

Renowned semioticians offer acclaim and appreciation for Eco's contribution to semiotic studies. Sebeok recognized Eco as among the "most original and creative contributors to semiotics" (xii) and reflected upon the admiration and appreciation offered to Eco by Roman Jakobson,<sup>6</sup> the pioneering Russian-born American linguist (xiii). A 2015 special issue of *Semiotica* edited by Marcel Danesi<sup>7</sup> articulates Eco's "enduring legacy" as a tribute to his work.<sup>8</sup> Furthermore, John Deely<sup>9</sup> described *A Theory of Semiotics* as "one small step for philosophy, [but] one giant leap for the doctrine of signs" ("Looking" 82) and Susan Petrilli, who was central in articulating semioethics as the inherently ethical nature of semiotics, notes Eco's contribution in constructing interpretation semiotics with the publication of *A Theory of Semiotics*.

<sup>&</sup>lt;sup>6</sup> Roman Jakobson (1896–1982) pioneered structural linguistics and linguistic anthropology. Drawing upon work by Ferdinand de Saussure and Charles Sanders Peirce, Jakobson considered aesthetics and poetry.

<sup>&</sup>lt;sup>7</sup> Marcel Danesi is a professor of semiotics and linguistic anthropology at the University of Toronto. He is the author of eight books and is the former president of the Semiotics Society of America.

<sup>&</sup>lt;sup>8</sup> Contributors to this issue include Marcel Danesi, Cinzia Bianchi, Clare Vassallo, Giampaolo Proni, Valentina Pisanty, Isabella Pezzini, Patrizia Violi, Piero Polidoro, and Nicola Dusi. The issue highlights Eco's interpretive semiotics along with his understanding of translation and the encyclopedia. The reference list contains full citations.

<sup>&</sup>lt;sup>9</sup> John Deely (1942–2017) was an American semiotician trained in medieval philosophy who explored the semiosis within Peirce's triadic description of signs. He was the Executive Director of the Semiotic Society of America from 2006 to 2007 and authored over ten books dealing with philosophy and semiotics.

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According to Petrilli and Deely, Eco's project turns to American pragmatists Charles Sanders Peirce<sup>10</sup> and Charles Morris<sup>11</sup> to extend Ferdinand de Saussure's (1857–1913) semiology and to offer an alternative to deconstructive semiotics. Eco's interpretive approach to semiotics emphasizes the power of signification and interpretation with meaning existing beyond signified and signifier and outside of text and reader. Petrilli views *A Theory of Semiotics* as an early effort articulating interpretive semiotics and *Semiotics and the Philosophy of Language* as an extension to this approach. The former introduced a theory of general semiotics comprised of communication as a carrier of information and signification as a carrier of meaning. The latter connects and distinguishes semiotics and philosophy through the themes of sign, meaning, metaphor, symbol, and code. Eco was foundational in the early establishment of semiotics and in garnering interest in it as a field of study connected to philosophy and culture.

Eco's work finds its academic home within the field of semiotics, but extends to architecture, philosophy, literary criticism, medieval studies, popular culture, library science, information theory, and human communication. Eco's intellectual biography reveals three themes: (1) a deep appreciation for and recognition of history; (2) interest in aesthetics as reflections and purveyors of culture; and (3) attentiveness to interpretation in human engagement. These themes begin to announce Eco's relevance to the field of human

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<sup>&</sup>lt;sup>10</sup> Charles Sanders Peirce (1839–1914) was the founder of American pragmatism. Known for his work on language, philosophy, semiotics, and logic, Peirce offered an alternative to Saussure's semiology.

<sup>&</sup>lt;sup>11</sup> Charles Morris (1901–1979) was an American semiotician and philosopher, who studied under George Herbert Mead and taught Thomas Sebeok. Morris offers a behavioral theory of signs that informed semiotics, pragmatism, and logic.

<sup>&</sup>lt;sup>12</sup> The National Communication Association's Philosophy of Communication Division derived from the Semiotics and Communication Division established in 1992. The name shift occurred in 2010.

communication, keeping in mind Eco's dual portrayal of communication and signification in the foundation and enactment of human meaning through cultural possibilities.

#### 1.3 Umberto Eco within the Field of Communication

As stated in the introduction, communication scholars understand communication as encompassing both the labor of information transfer and interpretative response. Eco, however, distinguishes these tasks. Eco's work assumes that human communication, culture, and history exist as semiotic phenomena that rely upon signification as the component of interpretive engagement. Signification reflects the theory of codes that construct the background for communication occurrences. Communication, contrarily, reflects the theory of sign production performed via the labor that transfers information and activates codes. For Eco, signification enlivens culture, provides meaning for human interaction, and makes interpretive insight within communication possible and viable. Eco recognizes both communication and signification as important for human engagement and cultural participation. This section acts as a review of literature to understand how Eco's work has influenced the field of communication.

References to Eco appear throughout the field of communication; these essays indicate that communication scholars read Eco's work and see connections between it and their own. This section relies upon this body of research as it appears nationally and internationally within the field of communication, organized in three subsections: (1) "Interviewing Eco," which recounts interviews conducted in 1976, following the publication of *The Theory of Semiotics*, and in 2013, late in Eco's life; (2) "Radford's *On Eco*," the premiere book within the field of communication, which articulates connections between Eco's work on interpretation and text within the horizon of philosophy of communication; and (3) "Communication Journal Articles," which overviews trends within the field of communication's regional, national, and international journals.

Together, this body of scholarship provides insights about Eco's connections to the field of communication and the ways in which scholars have already demonstrated this relevance.

#### 1.3.1 Interviewing Umberto Eco

Interviews with Eco provide the only instance of Eco's voice partaking within the field. This section reviews two interviews—one shortly after Eco's entrance to American discussions of semiotics and the other late in his career, only three years before his death. The first interview appeared in *Communication Quarterly* in 1976, the same year as the publication of *A Theory of Semiotics*, with then-graduate student and now-professor of Italian Studies at SUNY Stony Brook University, Gioacchino Balducci.

The interview between Eco and Balducci occurred in the context of a conference held in New York City on the theme of film interpretation. Balducci introduces Eco's project as interested in "the general foundations of communication from the point of view of structural semiotics" (35). The interview reveals Eco's interest in semiotics as "a unifying theory" that connects questions regarding avant-garde art, mass communication, and pop culture (35). However, Eco resists the impulse to define semiotics, emphasizing, instead, a multitude of theories and approaches (36). For Eco, the common theme throughout semiotic inquiry lies in its aim to understand "laws governing" the relationships between and among sign functions (36). Eco extends sign functions beyond the limit of verbal and visual relations and explains its value in seeking to understand "the elementary mechanism of the common language" (36). The interplay of sign functions and semiotics becomes the basis for interpretation of the creative arts.

The conversation shifts to the semiotics of film specifically, reflecting the cinema-themed conference as the backdrop that initiated the interview. Balducci questions Eco about the intersection of his work with other cinema theorists (37). He articulates Peirce's notions of icon,

index, and symbol and specifically, Eco's contention of iconism as over-simplification, as a distinctive feature that characterized his work (37). For Eco, a director, author, artist, etc. does not need to be educated on semiotics or its implications to offer semiotic insight for the audience (38). This interview addresses his theory of semiotics and its connections to communication, culture, and artistic expression.

This early interview with Eco announces his semiotic work and its initial connections for the field of communication, particularly as they relate to poetics, aesthetics, and culture. The sign function's correlating power operates within the labor of communication and the activation of meaning in signification. This interview previews the coordinates that become foundational to Eco's interpretation semiotics and relevant to the semiotic approach within the field of communication.

The second interview, published in the National Communication Association's 
Communication and Critical/Cultural Studies, occurred three and half decades after Balducci's 
initial interview. This interview conducted by James Hay, the editor of Communication and 
Critical/Cultural Studies at the time, addressed Eco's contributions to cultural and critical theory. 
Hay identifies Eco as among eight scholars<sup>13</sup> who had significant influence in articulating the 
questions that lie at the heart of the journal. Hay's choice to interview Eco is particularly 
interesting and significant considering that only one essay within the journal referenced Eco 
prior to the interview. 
Hay's work indicates an underlying assumption of Eco's fit within the 
field of communication with specific focus on his influence on critical and cultural 
considerations.

<sup>&</sup>lt;sup>13</sup> In addition to Eco, Hay interviewed Stuart Hall, Armand Mattelart, Meaghan Morris, Lawrence Grossberg, Tony Bennett, Janice Radway, and Graeme Turner (8).

<sup>&</sup>lt;sup>14</sup> Spyros Papapetros references Eco in support of her acknowledgment of Pokémon as a significant scholar text for academic inquiry.

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This interview, conducted and edited by Hay, took place between July 2012 and January 2013 via written correspondence. The interview begins with Hay's explication of Eco's relevance in explicating the interplay between culture, semiotics, and critical theory. The first question, however, considers the English translated title of *Turning Back the Clock: Hot Wars and Media Populism*. Eco emphasizes that although many of the essays comprising the volume were reprints of newspaper pieces that appeared years or decades earlier, the theme of technology's "regressive" direction maintained currency. Eco comments that technology's "state of decay" prompted readers to think that decades-old essays forecasted the technological environment of Italy in a post-millennium world (52).

The interview positions *Turning Back the Clock* as well as *Inventing the Enemy* as Eco's political commentary (53), which lends insights on the long standing presence of populism and similarities between Italian and American cultural and political environments. They discuss neoliberalism and conservatism in the contexts of World War I and II as well as the 2013 environment. Eco urges that the attitude of "progress' (at any cost)" must be revised (55). Furthermore, he cautions, "we must always be vigilant about the political situation, and this is one of the tasks of critical thought" (55). When Hay questions Eco, about the role of new media in determining present day considerations of critical theory and political and cultural environments, Eco argues that through social media and other new media channels, "very balanced persons" can engage the "psychology of masses" enacting the "most irrational deeds" (56). For Eco, social networks permit thousands of people to communicate simultaneously and lose "critical control" (56). Eco urges that in a world of new media, "we must simply elaborate new forms of criticism for a world of super-divisions" (56–57). Eco worries that the structure of

mediated and digital communication technologies put at risk critical thought and reflection in order to facilitate the goal of unending progress.

The interview concludes with a discussion on the enemy and warfare with Eco clarifying his classic notion of guerrilla warfare from 1967. Eco urges for the ongoing importance of practicing and teaching critical skills amidst the continued evolution of mass media and new media. He writes, "My idea was: since you have no power to transform media, try to change every day the way people receive their message" (58). Eco's original plea from the 1967 maintains relevant for human communication in the second decade of the twenty-first century, securing Eco's relevance to questions of critical and cultural communication inquiry and its ongoing work. Hay's interview with Eco emphasizes the ongoing implications of Eco's early and late work that shape the questions the fuel research published in *Communication and Critical/Cultural Studies*.

Appearing almost forty years apart, these interviews address central components to Eco's semiotic, aesthetic, philosophical, political, and technological insights. The first interview follows the technical aspects of Eco's *Theory of Semiotics* emphasizing semiotics' multitude of theoretical approaches and its emphasis on sign functions as correlating sign and content via signification (interpretive response) and communication (human labor that produces and transfers signs along code/s). In the later interview, Hay focuses on the consequences of Eco's work tied to his social and political commentary for the field of communication; the implications for lived experiences and social interaction overshadow the technical language and theoretical distinctions that Balducci connected to the field in the early interview. Gary Radford's central book, *On Eco*, discussed in the following subsection, continues to interweave Eco's semiotic

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theory with practical applications for lived experience, emphasizing the semiotic function of interpretation as reader meets texts alongside implications for the philosophy of communication.

1.3.2 Radford's On Eco

Radford's *On Eco* appeared as part of the Wadsworth Philosophers Series. This work, which Eco directly acknowledged, addresses the philosophical and practical implications of the interaction between text and reader relevant to philosophy of communication's consideration of the production of meaning in interpretive engagement. The work synthesizes Eco's work from the mid-1960s until the early 2000s with a consistent emphasis on interpretation through five themes: (1) text-reader interaction, (2) Model and empirical readers, (3) encyclopedia as a shared social treasury, (4) unlimited semiosis, and (5) open and closed texts. I discuss each theme and turn to Radford's summary of how these themes position semiotics as a social force fueled by signification and communication.

Radford begins *On Eco* by discussing the *text-reader interaction*, reminding the reader that the text, not the author, speaks and is present. He writes, "So forget about the author who created me. He is not here before you now. Only I am. The text. It is I who rest in your hands. And it is I who speak to you" (1). The text engages the reader in a path for clarity on how to read, interpret, understand, and communicate with acknowledgment of intertextuality (the exchange between texts) and hypertextuality (the co-presence of texts). The reader only uncovers interpretive insight based upon the sum of experiences (what one has seen, read, encountered, etc.) in conversation with other another. The text draws upon these experiences activating particular cultural codes that shape interpretation between text and reader (3–4). Every reader, however, is distinct and not all readers encounter a text with familiarity of similar experiences. The text becomes a source for reader engagement but neither the text nor the reader becomes the

source of meaning. Instead, Eco places meaning as the byproduct of interpretative engagement between text and reader.

With recognition of the distinctiveness of readers, Radford notes Eco's clarification between the *Model Reader and empirical readers*. Radford defines the Model Reader as one "who is able to recognize and observe the rules of the game laid out by the text, and who is eager and able to play such a game" (7)—one who can recognize the allusions and cultural codes that construct the text with ability and enthusiasm. The Model Reader, however, is not equivalent to the empirical reader or those who happen to read and interpret a text. The empirical reader is unpredictable—this reader may or may not recognize cultural codes within a text and furthermore may or may not comply with the rules governed by those codes. Engagement with the text then becomes, in Eco's words, "a difficult transaction" (as cited by Radford 6). This difficult transaction involves varied "competences" between the position of the reader and the demands of a text (6).

Radford explains that the determination of these competences involves one's history of "reading and interpreting other texts" (8). Experiences encountering other texts culturally create a collective *encyclopedia as a shared social treasury* available to any given reader in the interpretation of texts. An empirical reader's engagement with the social treasury constructs the texts that a reader has at his or her "disposal" when interpreting (9). The text-reader interaction contains "a system of prior and taken-for-granted knowledge" that may not coincide (10). Thus, Radford argues, "the meaning of any text is not contained within text, or within the reader, but in the matching of appropriate conjectures and competences between the text and reader" (13). An empirical reader's engagement with the encyclopedia as a social treasury constructs a "background" (13) that "orders and structures" interaction with a particular text (15). The text

then becomes an "invitation" for interpretive engagement (17) as words gain meaning by their connections within the reader's social treasury and within the combinational order and structure of the text (19).

Radford explains how interpretation is "shaped and constrained" by this reflexive exchange, supported and determined by both the reader's experience and the text's structure in the ongoing enactment of "unlimited semiosis" (19–23). Unlimited semiosis explains how one sign prompts interpretation of another sign in an ongoing interpretive act; unlimited semiosis accounts for multiplicity and disparity of interpretation in reader-text interactions. Radford writes, "The essential tension is regulated from both sides; the text and the reader. Interpretations float and compete in the space the tension makes possible" (21). The space produced by the tension between reader and text is the operational home of unlimited semiosis. Unlimited semiosis operates within the continual activation between signs and interpretations. The tension produced by the text determines the openness of the space that prompts unlimited semiosis (39).

The openness of this space determines the reader's ability to participate in interpretive engagement, and thus, Eco distinguishes between *open and closed texts*. The degree of openness contextualizes the interactive possibilities for cooperative engagement between reader and text. Radford identifies Ian Fleming's James Bond series within the realm of closed texts with its aim to "guide the reader through the plot according to the rules of the Bond universe" (40). The closed text minimizes the interpretative path of unlimited semiosis while the open text, contrarily, guides the reader to multiple points of "pluri-probability" where the readers' "choices are not foreclosed by a larger intertextual frame" (40). As an exemplar of an open text, Radford identifies James Joyce's *Ulysses*. The more open a text, the further the empirical reader can travel along a path of unlimited semiosis with the Model Reader standing firmly within, rather

than outside of, the text (41). The notion of open and closed texts clarifies that the Model Reader (and likewise the Model Author produced by readers) does not exist as an actual person but rather as a "textual style[s]" (42). Radford's work explains that interpretation lies between text and reader, in the space of unlimited semiosis made possible by degrees of openness and closedness as a textual style of engagement enacted by empirical readers.

Radford reminds us that for Eco interpretation occurs within cultural codes that rely upon signification. He argues that, for Eco, cultural systems permit the recognition and acknowledgement of signs as the product of interpretations dependent on social treasuries (51). The cultural competency, within Eco's explication of semiotics, contains codes that construct cultures and allows for the production, transfer, and recognition of signs via communication (51). Communication then does not become a task of decoding but instead the production of signs for "invention, imagination, and inference" within the codes of signification (63). Signification and communication make interpretive engagement and meaningful interaction possible, allowing the semiotician to turn semiotics into a "social force" that "intervenes" and directs action (80). Radford emphasizes semiotics ability to shape meaning in the public domain with consequences for lived experiences.

Semiotics has the ability to direct action and shape meaning, clarifying its role in political, social, and cultural engagement and, furthermore, its relevance for the field of communication. Radford concludes with Eco's recognition that semiotics has the power to shape and direct meaning, interpretation, and human action in all circumstances aside for death, which rather exists as a "pure experience" in which "language, signs, and meaning do not operate" (81). The experience of death, however, offers the moment when one knows all and simultaneously "cease[s] to know" (81). Until such a moment, we can only continue on a journey with texts

navigating what might emerge from our interpretive engagements. Scholars within the field of communication such as Radford offer insight into the implications for interpretive engagement between people and texts. In his discussion of the text-reader interaction, distinction between Model and empirical readers, portrayal of the encyclopedia as a shared social treasury, articulation of unlimited semiosis, and division of open and closed texts, Radford articulates the interpretive possibilities of Eco's general semiotics grounded in signification and communication. The section concludes with a move to communication journal articles and their use of Eco's work for the field.

#### 1.3.3 Communication Journal Articles

This section, "Umberto Eco within the Field of Communication," concludes with a review of communication scholars' use of Eco within academic journals. This literature review surveys the eleven journals published by the National Communication Association, the six journals published by the International Communication Association, and the eight journals housed within the regional associations (Eastern Communication Association, Southern States Communication Association, Western Communication Association, Central Communication Association, and Rhetoric Society of America). Additionally, this work drew upon the work published in the Atlantic Journal of Communication, Philosophy and Rhetoric, Journal of Communication and Religion, Rhetorica, Northwest Journal of Communication, Journal of Communication Inquiry, Journal of Business Communication, Journal of Family Communication, Language and Dialogue, Dialogue Studies, and Canadian Journal of Communication. Two appendices to this proposal provide a full list of journals surveyed and a complete bibliography organized chronologically.

This literature review includes essays that reference Eco tangentially as well as those that rely heavily upon his work. The scholars referenced reflect work from leading communication scholars (Arnett "Philosophy of Communication"; Benson; Bonnstetter and Ott; Catt and Eicher-Catt; Charland; Dance; Deetz; Grano and Zagacki; Gumpert "Urban Dilemma," "Looking Past," "Quality"; Gunn and Frentz; Hariman and Lucaites; Kennedy; Krippendorff; Lanigan; Littlejohn; Lyne "Rhetoric," "Speech Acts", "Discourse," "Semiotics"; Smith "Seeing," "Mishima"; Stewart, "Speech," "Postmodern Look"; Taylor and Harnett). The scholarship embraces a variety of approaches from organizational communication to philosophy of communication to critical studies, intercultural, and performance studies. This body of literature emphasizes the documented relevance of Eco's work for the field of communication.

The earliest references to Eco's work emerged as book reviews of *The Theory of Semiotics*, appearing shortly after its release in 1976. Specifically, within the first two years of its publication, three reviews appeared in two top-flight communication journals (*Quarterly Journal of Speech* and *Philosophy & Rhetoric*) by three major scholars in the field (Frank E. X. Dance, Thomas W. Benson, and Richard L. Lanigan). These reviews announce Eco's initial relevance for the field of communication and for rhetoric.

The first review, appearing in the *Quarterly Journal of Speech*, offered in 1977, by Frank E. X. Dance<sup>15</sup> reviews Eco's *A Theory of Semiotics* just one year after its publication. Dance provides an overview of the text, emphasizing the distinction between signification and communication. Dance discusses the relevance of Eco's definition of semiotics as a theory of anything that makes possible a lie. According to Dance, this definition expresses the ethical

<sup>&</sup>lt;sup>15</sup> Frank E. X. Dance is an emeritus professor of human communication at the University of Denver. He is the author of multiple books, book chapters, and articles and a former president for both the International Communication Association (1967) and the National Communication Association (1982).

implications of communication (334). Dance emphasizes the relevance of Eco's work while simultaneously noting Eco's lack of any clear reliance upon scholars from within the field. In sum, Dance evaluates *A Theory of Semiotics* as thoughtful, provocative, and deserving of a slow and careful read to uncover the underlying connection to the field of communication.

The following year Thomas W. Benson<sup>16</sup> offers a review of Eco's *A Theory of Semiotics* for *Philosophy & Rhetoric*. He separates Eco's project from ethics and metaphysics with the goal of identifying the "boundaries of semiotics" and expressing communication and signification as central components of general semiotics (214). Benson's focus lies specifically on a two-fold relevance of sign production (communication) for *Philosophy and Rhetoric's* readers. Benson's first point of relevance is Eco's alternative to Peirce's triadic typology of signs (index, icon, and symbol) (215). For Benson, Eco's alternative to iconic signs is "persuasive" and "productive," offering classifications of sign production (communication) as an alternative (215). The second relevance point is Eco's "treatment of rhetoric" as code switching and overcoding and its connection with ideology as "two types of discourse dealing with the same content" (215–216). Benson assesses Eco's project as "a genuine contribution" to rhetoric and philosophy of communication (216).

Then in 1978, Richard L. Lanigan<sup>17</sup> published a review article titled "Contemporary Philosophy of Communication." The essay reviews seven books on the theme of philosophy of

<sup>&</sup>lt;sup>16</sup> Thomas W. Benson is the Edwin Erle Sparks Professor Emeritus of Rhetoric at the Pennsylvania State University. He was the founding editor of *The Review of Communication* and the National Communication Association's listsery, CRTNET (Communication Research and Theory Network). He is the author of numerous books dealing with themes of rhetoric and criticism, and he is the recipient of multiple scholarly awards such as the National Communication Association's Distinguished Scholar award and the Eastern Communication Association's Everett Lee Hunt Award.

<sup>&</sup>lt;sup>17</sup> Richard L. Lanigan is a Distinguished Scholar and Professor Emeritus at Southern Illinois University Press. He is the author of five books and over 100 book chapters and articles. He is

communication, including Eco's *Theory of Semiotics*. For Lanigan, Eco's work moves deductively "from (1) a formal model of a sign-system to (2) a theory of codes to (3) a theory of communication and on to (4) a theory of mentions, and results in (5) a theory of communication acts" (344). Lanigan expresses concerns with the arrangement of *A Theory of Semiotics*, particularly in waiting until the last chapter to explicitly inform the reader that the theory "avoid[s]" considerations about phenomenology of speaking subjects (344). However, Lanigan praises Eco's work connecting communication/sign production with rhetorical theory (345). Lanigan positions Eco's analysis of codes with direct connections to Aristotelian rhetoric. Likewise, Lanigan refers to Eco's use of Perelman in his last chapter as an "admi[ssion] to the need to return to the *speaking subject* for a theory of meaning"—Lanigan's concern announces the centrality of phenomenology for rhetoric, already acknowledged by Perelman (346). Lanigan appreciates the relevance of *A Theory of Semiotics* for the field of communication but simultaneously emphasizes its need for phenomenological implications.

Together, the reviews offered by Dance, Benson, and Lanigan bring *A Theory of Semiotics* into the field of communication, announcing initial connections explored by later scholars. Later reviews of Eco's works continue to articulate the implications for the field of communication with performative qualities. For instance, in the *Quarterly Journal of Speech*, John Lyne provides a 1985 review of the theoretical application of Eco's *Semiotics and the Philosophy of Language* in his first novel, *The Name of the Rose* (which appeared in English only one year apart). Lyne sees a performative exemplar of "the relative potential of narrative and rational argument" in Eco's work (489). Lyne understands *The Name of the Rose* as the narrative enactment of the theory presented in *Semiotics and the Philosophy of Language*, which

the founding director of the International Communicology Institute and past Vice President of the International Association for Semiotic Studies.

joins and expands the insights of *A Theory of Semiotics* and *The Role of the Reader* (490). According to Lyne, reading these texts alongside one another reveals the "mirrors and labyrinths" (491) found within and between each text.

Mary S. Strine continues this theme of performative application in her review of Eco's *Semiotics and the Philosophy of Language* published in *Text and Performance Quarterly*. Strine argues for the relevance of Eco's work for communication and performance in the following statement: "it makes us see each oral interpretation not as an end in itself but as an interpretant, a cultural text generating new interpretations" (102). She argues that the performative nature of texts "preserve and extend" the openness of semiotic possibilities (102). This performative quality of Eco's work becomes the next theme of inquiry identified in this literature review.

Eco's project offers a twofold performative engagement. First, Eco's work encompasses theoretical, philosophical, and semiotic insights enacted in contemporary social and cultural issues. Eco's work, although at times presented in highly technical and theoretical language, has practical consequences for the public domain. Eco's theoretical concepts become performative in their relevance and connection to important social and cultural issues. Second, Eco provides performative enactment of his philosophical and semiotic insights demonstrated in his seven novels. Just as Lyne identified in his concurrent review of *The Name of the Rose* and *Semiotics and the Philosophy of Language*, communication scholars continue to understand Eco's novels as performative engagements of his own theory of general semiotics as a philosophy of language.

Gary Gumpert, the president of the Urban Communication Foundation, whose work considers the implications of mass communication and urban life, demonstrates these points.

Beginning in 1996, Gumpert laments the exclusion of Eco's work (along with the work of McLuhan, Ong, Havelock, Sennett, Innis, Eisenstein, Derrida, etc.) from the realm of

"mainstream communication scholars" ("Urban Dilemma" 521). Gumpert's essay addresses the "difficulty" that communication scholars face when addressing urban public policy, or what he terms, "the urban dilemma" ("Urban Dilemma" 519). For Gumpert, Eco's work offers a horizon to understand urban communication and respond to public policy issues with interesting and potentially productive opportunities for response. Gumpert understands Eco as a scholar "writing for the public sphere" ("Quality" 56), whose semiotic theory, literary work, and philosophy of language embraces the performative and practical nature of responding to urban social issues.

One decade later, Gumpert considers the themes of disciplinary memory and the structural make-up of the field of communication through a comparison of Eco's novel, Mysterious Flame of Queen Loana ("Looking Past"). The novel tells the story of a man who after suffering a stroke retains factual memory and loses his personal memory and the recognition of his own family, friends, and past. Gumpert used Eco's novel to discuss the theme of "reconstruction"; Gumpert urges scholars to explore the artifacts of the discipline—the books, archives, journal essays, magazine articles, association newsletters, and newspaper publications before they are forgotten and lost ("Looking Past" 170). Gumpert reflects on the "past luminaries" of the field of communication with hope that they will be "passed on" instead of "passed by" in the work conducted by the upcoming generations of students, faculty, and scholars ("Looking Past" 170). Gumpert urges that we must embrace communication in its "administrative structure" with a commitment to the "institutional continuity" that will preserve the field as "a home for unfettered thinking" ("Looking Past" 171). Eco's novel and its theme of reconstruction, as interpreted by Gumpert, becomes relevant in a dedication to the artifacts of the field of communication—the work of scholars who have come before us—that shape the home of communication as a field of study. Gumpert turns to Eco's novel to express the importance of

preserving texts (with continual (re)consideration) for the culture of the field of communication.

Gumpert recognizes Eco's own performative engagement in novel form to illustrate his deeply practical application.

James VanOosting, <sup>18</sup> who generally expresses thoughtful precaution in the use of literature within empirical methodologies of human communication, appreciates the quality of performative application offered by Eco. Although footnoted, VanOosting references the value of a side-by-side reading of *A Theory of Semiotics* and *The Name of the Rose* as a "fine (and fun) example of the theoretical compatibility of literature and communication theory" (226). VanOosting clarifies that his general concern does not lie with the use of literature to uncover theoretical insight but rather in the assumption that the discourse of literature aligns with lived human discourse. Eco, however, resists this temptation, providing an alternative with thoughtful and reflective application of concepts in performative enactment.

Communication scholarship provides references to four of Eco's seven novels: *The Name of the Rose* (Andrucki; Arnett "Philosophy of Communication," *Levinas's Rhetorical Demand*; Engström; Scuderi), *Foucault's Pendulum* (Gharavi; Gunn and Frentz), *The Mysterious Flame of Queen Loana* (Arnett, DeIuliis, and Mancino), and *The Island of the Day Before* (Hartnett). For instance, Arnett focuses on hypertextuality in Eco's *The Name of the Rose* as the co-presence of historical moments. Arnett identifies philosophy of communication as a form of qualitative research that requires enacting performative tasks: questioning, reading, writing, editing, thinking, and interpretation ("Philosophy of Communication" 1). For Arnett, Eco exemplifies the need for reading with a recognition of hypertextuality to understand the "multiple layers" and

<sup>&</sup>lt;sup>18</sup> James VanOosting is the author of ten book and numerous articles and book chapters on the theme of narrative within the field of communication and media.

<sup>&</sup>lt;sup>19</sup> Lynn Christine Miller extends appreciation even further to the film adaptation of the *Name of the Rose* 

"numerous dimensions" of texts ("Philosophy of Communication" 2–3). Arnett uses *The Name* of the Rose as an exemplar ("Philosophy of Communication" 3)—a novel that can be read as a detective story, a historical novel with a glimpse into medieval life, a praxis-engagement of semiotic theory, or a collection of literary, poetic, historical, and pop culture allusions. *The Name* of the Rose demonstrates Eco's notion of hypertextuality in narrative practice as an exemplar of semiotic concepts in performative engagement.

Communication scholars such as Arnett acknowledge the co-presence of texts (hypertextuality) in Eco's work as well as the interaction between texts (intertextuality) such as organizational communication and critical communication scholar, Stanley A. Deetz. Deetz, in situating critical interpretive research within organizational communication, offers a footnote on Eco that clarifies the possibility to frame the intertextuality within and between organizations. For Deetz, organizational communication better represents "intertextuality than intersubjectivity"—Deetz emphasizes that organizational communication occurs in "the interplay of texts rather than subjective agents" (137). Eco exemplifies the interplay between text, reader, and interpretation that shapes human interaction in various contexts.

For Eco, the interpretive engagement of text and reader requires participatory action.

Beth E. Bonnstetter and Brian L. Ott announce such participation in the exchange between text and reader/audience in the open work (347). Keeping in mind that the open work encourages active engagement in unlimited semiosis located in the tension that exists between text and reader, this performative and participatory experience prompts Eco's understanding of the responsibility to partake in interpretive semiotics.

In the early 1980s, Lyne offers a series of reviews and essays that draw upon the interpretive qualities of Eco's semiotics. In 1980, Lyne recognizes Eco's role at the forefront of

the International Association for Semiotic Studies by propelling an interpretation semiotics rooted in Peirce and Morris ("Review of Two"). Lyne stresses how Eco (particularly in *The Theory of Semiotics*) and Sebeok secured both Peirce and Morris as foundational philosophers in general semiotics, which offered an extension and alternative to Saussure ("Rhetoric" 156). Likewise, Lyne announced the relevance of connecting interpretive semiotics to rhetoric through the notion of overcoding and code switching, which grounds rhetoric in a philosophical tradition without limiting it to techniques of eloquence and style ("Rhetoric" 223). Lyne portrays Eco's work on rhetoric as connected to possibilities for "structur[ing]" knowledge throughout the humanities and sciences ("Discourse" 201). Lyne locates Eco alongside Thomas Kuhn, Hans-Georg Gadamer, Jürgen Habermas, and Paul Ricoeur, all tied to interpretation of "social knowledge" ("Discourse" 201). Even though Lyne focuses his reviews of books by Richard Rorty, Karl-Otto Apel, and Anthony Giddens, he emphasizes Eco's influence in shaping perspectives of knowledge formation and acquisition tied to a philosophical hermeneutics perspective.

Further association between Eco and philosophical hermeneutics appears in a footnote in Michael Calvin McGee's article, "The 'Ideograph': A Link between Rhetoric and Ideology." The article itself examines the interplay of rhetoric and ideology within the phenomenon of mass consciousness. The footnote couples Eco's *A Theory of Semiotics* with Gadamer's *Philosophical Hermeneutics* as two theoretical avenues for uncovering interpretive meaning "within situational and textual contexts" (12). This association is interesting and insightful, pointing to Eco's position within philosophy of communication perspectives.

Arnett and Arnett, David DeIuliis and Susan Mancino directly address Eco's connection to philosophy of communication tied to interpretive inquiry. As already discussed, Arnett's

"Philosophy of Communication: Qualitative Research, Questions in Action" specifically addresses Eco's work as a philosopher of communication in his writing *The Name of the Rose* as an application of his theoretical insights. Arnett, DeIuliis, and Mancino extends Eco's position as a philosopher of communication in his performative explication of existential semiotics in his 2004 novel The Mysterious Flame of Queen Loana as a "corrective" to Euro Tarasti's 2001 Existential Semiotics. The authors articulate existential semiotics within Martin Buber's "unity of contraries," emphasizing the "power of signification in response to the limits of existence" (16). Eco illuminates how work hypertextuality permits signs to become "infuse[d]" with meaning in "existential performativity" (16). The Mysterious Flame of Oueen Loana exudes what Arnett, DeIuliis, and Mancino term hypertheoreticality in the simultaneous presence of theories that coinform one another, "with no one theory trumping all signification" (17). In this manner, Eco emphasizes interpretation within "horizon[s]" openness and closedness (17). Within this horizon, Eco presents "a sign as an enigma wrapped in hypertextuality," reverting attentiveness to interpretation made meaningful in temporal codes of performative signification (18). Eco's work embraces the multitude of philosophies of communication in meaning production.

In a 2017 essay in *The Atlantic Journal of Communication*, I extend Eco's work as a philosopher of communication, dealing particularly with his understanding of lists as (in)formers of culture. This project follows the connections initially explicated in this forthcoming essay, which follows Eco's depiction of lists as an extension of language used to texture human communication. Eco explains how lists become useful, for instance, when describing the night's sky or when pointing toward an infinity that prompts a sensation of dizziness—the list becomes meaningful in expressing what is beyond language expression. The themes of this article will appear in detail in the fourth chapter of the dissertation. I position Eco's work within the

framework of philosophy of communication, announcing poetic possibilities that extend possibilities for human meaning making.

Isaac E. Catt and Deborah Eicher-Catt offer a review of communication literature dealing with semiotics and communicology that indicates Eco's work in this area. Their review understands semiotics as "a global phenomenon" known for its "transdisciplinary" possibilities (178). In Eco, they find relevance and possibilities for semiotics as a philosophy of communication, noting the unusual fact that communication scholars do not draw heavily upon his work. They note Eco's portrayal of semiotics as a broad discipline (larger than the bounds of communication) whose philosophical insights occur and provide insight to communication (195) as a philosophy of communication with interpretive possibilities.

Hellmut Geissner's essay, "On Rhetoricity and Literarity," which emerged as a keynote address at the 8<sup>th</sup> International Colloquium on Communication held at the University of Copenhagen from July 27 to 29, 1982, represents these interpretive possibilities. The essay examines the perceived barriers between rhetoric and oral interpretation, arguing for acknowledgment of the "interdependency of rhetoricity and literarity" (276). Geissner draws upon Eco's notion of the open work, which according to Geissner, acts as a "prerequisite" for "poly-interpretability" (280). Geissner offers this reference to emphasize the nature of multiplicity for interpretation in the determination of clear boundaries between rhetoricity and literarity that highlight considerations about the role of the audience.

In 1988, James Hartley offers a critical response to Martin Allor's "Relocating the Site of the Audience," which explores the interpretive responsibility and capabilities of audience members. While Allor argues that the audience, rather than empirically existing in actual space, is dependent on discursive positions, Hartley refers to Eco's early effort to "bridg[e] the gap

between elite and popular culture" (237). Hartley refers to various essays contained within Eco's edited volume, Travels in Hyperreality. Hartley draws upon Eco's call for critical thinking from audience members to position "the site of the audience" within the political gap as "a site of struggle" (235). For Hartley, Eco's understanding of audience finds home in the active and performative struggle of ongoing interpretation.

Not all, however, share appreciation for the interpretive power of human signification and communication within Eco's work. For instance, Celeste Condit Railsback explores controversies surrounding claims that rhetoric is epistemic. Her work seeks to understand the interactions of objective reality, objective truth, and rhetoric. She turns to Eco for his theory of language as "an inter-defining network in which each term gains meaning by its relationship to other terms" (354). Particular words act within a language system so that "no term is final" but rather each term is "reflexively defined by terms in the system" (354). Railsback discusses Eco's philosophy of language within structural framework (although many would counter this assessment), arguing that Eco's work in A Theory of Semiotics does note go far enough; Railsback argues that Eco offers a theory that is "potentially idealistic or subjective" (354). For Railsback, Eco's semiotic work lies within the threats of subjective and relativism without alternative ground.

Then in 1986, John Stewart recognizes Eco (along with Peirce) as one of the two most influential and seminal voices in semiotic theory, which is so central to communication that it is often articulated as "invisible" ("Speech and Human Being" 55). He recounts the aims of the semiotic approach of communication followed by particular contributions of Peirce and Eco. The central argument of Stewart's work, however, is his complementary proposal for communication through the work of Martin Heidegger, Gadamer, and Martin Buber. For Stewart, the work of

these three scholars offer a complementary understanding to human communication that accounts for "an understanding of human speech as a phenomenon that not only signifies or symbolizes but that also—perhaps primordially—reveals, constitutes, or embodies 'world' between persons" ("Speech and Human Being" 61). Stewart explains that complement offered by Heidegger, Gadamer, and Buber offer philosophical explication of language that "unites" speaking and being, which are opposed in the semiotic approach to human language ("Speech and Human Being" 61).<sup>20</sup>

In 2000, Bryan C. Taylor and Stephen J. Harnett discuss national security and (post-) Cold War culture. They turn to Werckmeister's reading of Eco and his work on *The Name of the Rose* as an exemplar of citadel culture (470). Taylor and Harnett offer a critique of Eco in moving from writing "semiotic 'treatises about Sean Connery' to working on a film in which 'Sean Connery is cast as the protagonist' (p. 43)." (470). Taylor and Harnett argue that Eco shifts from "a critic of capitalist culture into a producer of it" and ceased to present "arguments about the historical possibilities of our culture to making commodities that enable that culture to roll along, happily awash in spectacular new images that foretell the ultimate paralysis of human actions" (470). For Taylor and Harnett, Eco moves from a critical and thoughtful voice on social commentary to falling prey to the threats observed in a consumer-driven world.

This work offers an alternative, understanding Eco's work as a performative embrace of semiotic theory with practical consequence. Consistent with this body of communication scholarship that recognizes the relevance of Eco work, this project follows his theoretical and semiotic work as well as his social commentary and applications in novel form. The references to Eco appear throughout the field and as early as the mid-1970s after the publication of *A Theory* 

<sup>&</sup>lt;sup>20</sup> For an alternative to Stewart's claim, see Pat J. Gehrke's *The Ethics and Politics of Speech: Communication and Rhetoric in the Twentieth Century.* 

of Semiotics. Communication scholars embrace the meaning-emphasis of signification and the transfer of meaning via communication; likewise, they follow Eco's suggestions on the connections between rhetoric and semiotics through the metaphor of code switching.

Applications of Eco's work offer implications broadly employed with an emphasis on signification's interpretive possibilities that lend insight for human communication.

## 1.4 Pathways to Preserving Signification and Communication in an Internet Age

Building upon the field of communication's recognition of Eco's relevance to human communication, this project emphasizes the interpretive possibilities of his work for understanding lists within the interplay of Eco's articulation of communication (labor that produces and transfers signs) and signification (uncovering human meaning). In five chapters, this project follows the connections announced by communication scholars—the performative enactment of semiotic theory with practical implications that recognize the interpretive possibilities of hypertexts. Specifically, this dissertation seeks to understand the communicative and rhetorical implications of the list as an origin for culture (and thus constructing codes of signification) and the danger of the Internet, framed in this work as the penultimate list that threatens the end of culture (and thus the end of signification and communication).

This project seeks to understand the interpretive possibilities of Eco's project of signification and communication in the Internet Age, moving through Eco's theoretical project to its practical application and implications for human meaning making. Throughout six chapters, this dissertation addresses the central metaphors of Eco's project (e.g., signification and communication, logic of culture, the openness of texts, intertextuality and hypertextuality, etc.), examines these metaphors at play in Eco's 2004 novel *The Mysterious Flame of Queen Loana*,

and provides implications for maintaining signification and communication in a contemporary moment committed to the potential of algorithmic power and big data.

This first chapter, "Umberto Eco Within the Field of Communication: Uncovering and Preserving Human Meaning" situated Eco with an intellectual biography and positioned him within the field of communication, overviewing the themes and trends within the research. A complete reference guide containing all essays within mainstream communication journals accompanies this project. Situating Eco as a scholar whose work is relevant and significant for the field of communication provides the groundwork from which his cultural aesthetics, semiotic theory, and literary praxis become practical to understanding his articulation of lists and concern about algorithmic processing of big data collections.

Chapter 2, "Understanding Lists: Forms, Functions, and Features," follows Eco's thinking on lists as outlined in his 2009 work, *The Infinity of Lists* and overviews his key responses to the value and threats presented by the Internet. This chapter identifies the central coordinates that frame Eco's contention that lists serve as the origin of culture and his concern about the dangers of the Internet age. This chapter plays out these arguments understanding the list as a theoretically rich concept emerging from his cultural aesthetics, interpretive semiotics, and literary engagement. His portrayal of lists, grounded in his early work on popular culture and interpretation, expresses various levels of participation within and with texts that offer opportunities for meaning to emerge from signification and communication. Eco's concern is that the Internet will close off these opportunities, destroying diversity of interpretive response and limiting the labor of communication. Chapter 3, "List and Text: Interpretive Possibilities," turns to Eco's second book, *The Open Work*, which secured his reputation and expertise in the Italian cultural scene. This work emerged from Eco's interest in cultural interpretation and

graduate work in medieval aesthetics. Eco emphasizes interpretive possibilities elicited by texts through what he terms its openness. Open texts encourage and invite reader participation through the activation of cultural codes, stressing interpretive possibilites emerging between text and reader. For Eco, meaning manifests from this interaction rather than laying in the isolated realms of author, reader, or text. Furthermore, the chapter discusses the ways in which texts interact to inform and co-inform one another through intertextuality (exchanges between texts) and hypertextuality (the simultaneous co-presence of texts). Furthermore, the chapter identifies connections between Eco's cultural aesthetics and his understanding of lists, which opens possibilities for cultural meaning and interpretation.

Chapter 4, "Toward a Logic of Lists: Exploring Eco's Semiotic Theory," turns specifically to Eco's first book on semiotics written in English, *A Theory of Semiotics*. This work outlines a theory for general semiotics as a field of study comprised of communication (human labor of sign production and information transfer) and signification (cultural codes and possibilities for interpretive response). Eco understands signification as a theory of codes that constructs a logic of culture and communication as a theory of sign production. For Eco, general semiotics becomes the basis for a logic of cultural engagement, participation, and resistance. This chapter also addresses the extension of semiotics in *Semiotics and the Philosophy of Language*, which emphasizes the philosophical underpinnings of semiotics as well as its commitment to interpretation. The chapter aims to articulate the semiotic functions of communication and signification at play in the interpretive and cultural power of lists.

Chapter 5, "Literary Praxis: *Mysterious Flame of Queen Loana*," turns to the 2004 novel *Mysterious Flame of Queen Loana* as Eco's defensive of the dual value of communication and signification. The novel portrays a man's quest to regain communicative insight through the

cultural memorabilia that hold signification. The novel depicts the story of a man who, after suffering from a stroke, turns to his adolescent collections to recover the meaning and memories of his life. Within this work, Eco's applies his theoretical insights described in the first four chapters in novel form—in this application, the chapter uncovers Eco's warning to maintain fullness of signification and the embodied encounter with cultural artifacts in order to protect and promote cultural vibrancy. Furthermore, the chapter emphasizes the dangers that an Internet Age presents to signification and communication.

Chapter 6, "The Penultimate List: When the Algorithm Replaces the Human Collector:," portrays the contemporary obsession with algorithmic processing of big data information as presented by a 2017 study conducted jointly by the Pew Research Center and Elon University's Imagining the Internet Center. The chapter summarizes Eco's concern with algorithmic processing and big data collection as well as offers implications about the consequences of this practice. The communicative labor of listing emerges as a possible alternative avenue of response that enriches human meaning via signification and communication. This chapter confirms the relevance of Eco's work for the questions that guide this project.

This project, *Understanding Lists: Umberto Eco's Rhetoric of Communication and Signification*, reminds us that one finds meaning in engagement, participation, and interaction with texts that strengthen the interpretive possibilities of culture as a "labyrinth" of information (Eco, *Infinity*), activated and engaged via interpretation with power to direct action. Eco reminds us of our responsibility to thoughtfully engage and interpret the texts that surround us guided by the spirit of question asking and reflective consideration. This dissertation addresses the implications and relevance of this work not only for the field of communication but also for the

human community throughout the turn to an Internet Age with fullness of meaning and performative action through interpretive engagement.

This project addresses human communication with recognition that meaning emerges in a revelatory fashion outside of any one person or text. Interaction and engagement with texts and one another keeps interpretation meaningful in an ongoing practice of unlimited semiosis that allows one sign to prompt signification of another. For this reason, this project takes seriously Eco's concern that meaning and culture face extinction in the Internet Age where the techniques of big data replace signification and the human labor of communication in revealing and interpreting meaning. In the midst of such a concern, this project, likewise, follows Eco's work to uncover horizons of response in preserving a hypertextual world of multiplicity and difference that maintain meaning in human interaction.

# Chapter 2:

Understanding Lists: Forms, Functions, and Features

The list stands as a central theme for understanding Umberto Eco's semiotic and literary corpus and provides the grounding metaphor of this project, *Understanding Lists: Umberto Eco's Rhetoric of Signification and Communication*. This chapter traces the notion of the list within Eco's work, encompassing his earliest endeavors in medieval aesthetics and cultural studies to one of his final works, *The Infinity of Lists*, which appeared alongside an invited exhibition at the Louvre in 2009. Eco identifies the multiple forms and functions of the list, stressing the its role as a theoretical construct, a text for semiotic analysis, and a cultural artifact mirroring the encyclopedic structure of the world. This chapter surveys the role of the list from its emergence in the ancient world until Eco's framing of the 21st-century's Internet age as a the "Mother of All Lists" (360). The central theme is the juxtaposition between the material rhetoric of physical collections and the accumulation of information gathered in virtual collections.

The chapter contains three sections. The first section, "*The Infinity of Lists*," overviews Eco's only work to deal directly with this subject, emphasizing the historical functions and forms of the list. This work, which appeared alongside an invited exhibition on the same theme at Louvre, serves as an introduction to Eco's discussion of the list. The second section, "The World Wide Web—The Mother of all Lists," turns to Eco's writings on the Internet Age, which he named "the Mother of All Lists" in 2009 (*Infinity* 360). This second extends beyond *The Infinity of Lists*, covering Eco's response to the Internet and digital world from as early as the 1996 up until to his later comments on Wikileaks. The final section, "Intersections," explores the juxtaposition of Eco's work on lists compared to his commentary on Internet culture. This

chapter aims not only to announce the list in its various dimensions, stressing its historical and contemporary importance, but also emphasizes the intimate connection between culture and lists that becomes precarious in the data-obsessed environment of the Internet Age.

Eco's work portrays the list with dynamic and multidimensional capabilities. This project examines the list in three capacities: as a historically-responsive, theoretical construct, as a semiotic text that contributes to human meaning making, and as a cultural mirror representative of Eco's unique conception of an encyclopedic world driven by multiplicity, hypertextuality, and difference. This chapter introduces the notion of the list in preparation for further theoretical exploration in later chapters and to place Eco's claim that the list is the origin of culture in relation to his warning about the Internet's obsession with lists.

## 2.1 The Infinity of Lists

In 2009, Eco authored The Infinity of Lists, also translated as The Dizziness of Lists. 21 This book complemented an invited, guest curated exhibition at the Louvre addressing the same theme. Located on the first floor of the Denon Wing, the exhibition was open from November 7, 2009 until February 8, 2010 and was organized in conjunction with Marie-Laure Bernadac, the Curator in Charge and Special Advisor on Contemporary Art with the Musée de Louvre. A series of multidisciplinary events accompanied the exhibition, following a description of the list as "a vehicle for cultural codes and the bearer of different messages" (Louvre). The *Infinity of Lists* also accompanied the exhibit, providing an introduction to Eco's understanding of the

<sup>&</sup>lt;sup>21</sup> The original title of the Italian work, *Vertigine della Lista*, directly translates to the 'vertigo' or 'dizzying' of lists. In English, the work holds the title *The Infinity of Lists*. Each of these translations is insightful and appropriate. Eco's conception of lists prompts a dizzying vertigo as the product of the infinity of lists—both in terms of forms or modes of listing and in the possibility to list without end (i.e., naming every star in the sky).

theoretical, historical, and cultural importance of the list that gains further texture from examination of his earlier works that contain glimpses to this later explication.

Eco introduces *The Infinity of Lists*, describing his own work as "abounding" with lists (7), an interest rooted in his Catholic upbringing, educational training in medieval philosophy, and appreciation of the avant-garde literature of James Joyce, who, perhaps not surprisingly, shared a love lists likely emerging from Catholic and medieval influences. The task of *The Infinity of Lists* is to express the breadth of lists in cultural and aesthetic texts, to announce their poetic and pragmatic functions, and to provide a historical account encompassing various media contexts. This section identifies the following five themes as foundational to understanding Eco's survey of the list as: (a) bounded and boundless, (b) practical and poetic, (c) rhetorical and categorical, (d) dictionary and encyclopedia, and (e) coherence and chaos.<sup>22</sup> These five coordinates emerge from Eco's project as foundational oppositional forms of historical and contemporary listing practices. Eco layers possibilities of listing with these coordinate pairs as they co-inform performative listing practices. These coordinates introduce a general audience into his exploration of the semiotic, cultural, and social implications of performative listing practices that offer countless forms of lists in action.

### 2.1.1 Bounded and Boundless:

Eco begins his history of the list with the Shield of Achilles, stressing form. Eco explains how within this shield the list emerges with a series of successive scenes that portray an

<sup>&</sup>lt;sup>22</sup> These five coordinates provide layers of meaning in understanding his notion of lists. I identified these oppositional pairs from Eco's language in describing the list in its variety. These defining modes of listing practices emerge as one moves through the chapters of the text—Eco discusses bounded and boundless lists in chapters one through six; practical and poetic lists in chapters seven and eight; rhetorical and categorical lists in chapters nine through twelve; dictionaries and encyclopedias in chapters thirteen and fourteen; and coherence and chaos in chapters fifteen through twenty-one.

appearance of time passing. He compares the form of the shield to techniques employed millennia later in cartoon strips, comic books, and cinema screenplays (11). The Shield of Achilles, however, remains "finite" and "closed" within a circular form that constructs an impression of harmonious order bounded by form (12). The shield presents a narrative and "referential function" that constructs a story in the connections between and among the series of scenes depicted on its form. However, the form directs the viewer's attentiveness within and bound by its form, discouraging one to consider or to seek meaning beyond the closed world depicted by the shield. The shield depicts a universe "limited to its form" (12). Eco emphasizes how form determines interpretive engagement throughout various art media—for instance, one does not wonder about the landscape beyond the bounds of the frame of Mona Lisa.

While attentiveness to form often requires that the artist contain knowledge of the "laws, causes and effects" of the world depicted, some lists attempt to represent subject matter so astronomically large that is seems infinite (15). In such instances, the lister inherently lacks complete and total knowledge of its subject, resorting to an infinite open form quite distinct from the closed, finite world portrayed in the Shield of Achilles. According to Eco, it is of little consequence whether the infinity represented is a never-ending subject matter or if it is only a number so large that we fear its enumeration—for instance, Homer's 350-verse catalogue of ships in Book 2 of the *Iliad* refers to the vessels of the Achaean army sailing to Troy. The referential quality of the list is finite but the verse portrays a dizzying sensation that points toward infinity (17–18). Eco explains that this listing form is not confined to the classical world but instead resurfaces in medieval theology, Renaissance and Baroque portrayals of astronomy, and modern and postmodern mass culture and aesthetics (18).

The interplay of list and form occurs in verbal and visual formats producing impressions of both finite and infinite worlds. The finite world of the Mona Lisa, which discourages its viewer from directing its attention beyond the frame of the portrait, is quite distinct from the night sky, which sparks one to wonder what lies beyond the Milky Way. Visual representations also announce an allusion to infinity regardless of its referential quantity. For instance, an aerial image of urban sprawl creates a dizzying anxiety that extends beyond what appears within the frame; the primary task of the image is not to contain the finite and closed world of the city but rather to represent what continues beyond the visual form.

Similarly, news outlets employ this engagement when reporting the destruction of manmade or natural disasters. Footage that accounts for the devastation prompts a dizzying anxiety for the viewer with a reminder that there is more without any knowledge of its limits. Despite what the referential subject may be, open and infinite lists point toward the ineffability of the world. The sensation of ineffability relies upon an "etcetera" that engages a poetics of infinity embraced by an open form (81).

Eco positions form as a central coordinate in constructing the meaning of the list, separated into bounded and boundless arrangements. He differentiates the closed and bounded form of the Shield of Achilles with the open and boundless form of the night's sky. Both forms embrace possibilities for meaning emergent from the listing practice. Bounded lists produce insights, often in narrative form, surfacing from intimate knowledge of the referential subject situated within historical and social contexts. Boundless lists draw upon the ineffability of a world that contains objects so expansive that we are unable or fear possibilities of enumeration. For Eco, form becomes an initial entrance into understanding the diversity of listing as an avenue for cultural meaning with practical and poetic purposes.

### 2.1.2 Practical and Poetic

Eco offers an important distinction between poetic and practical lists. Three characteristics define the practical list; it has a solely referential function referring to objects encountered in lived experience, is finite/complete (or complete-able), and unalterable/unchangeable (113). We see these lists emerge in library catalogues, guest lists, restaurant menus, inventories, receipts, phone books, wills, genealogies, bibliographies, etc. (113). Each of these lists refers to objects in the lived world that are finite containing the ability to reach completion, and once reaching completion cannot change.

For example, each item on a restaurant menu refers to a dish that a customer could order. The menu is finite because a customer practically cannot order what is not on the menu or in the restaurant inventory, and finally, the menu is unalterable or unchangeable at a given time because it only refers to what a restaurant offers—it would not make sense for the restaurant to offer a dish on its menu that it could not offer in lived experience. The practical list adheres and determines form, governed by a "contextual pressure" that items by their proximity and placement within the list. This example is not to infer that the restaurant menu cannot change across time or context, but as the menu changes the list loses its practical function and is replaced by a new menu that re-establishes its practicality. Eco describes the functional quality of practical lists as "obvious" (117) but considers the poetic list with greater curiosity.

The poetic list, according to Eco, emerges when the subject of the list focuses on what escapes human ability to enumerate or control (117). For Eco, the purpose or function of the poetic list offers numerous possibilities. For instance, in the examples provided earlier, one who engages the visual list of the night sky seeks a much different practical end than Homer in his catalogue of ships or the reporter who produces a dizzying anxiety through footage accounting

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for the destruction of a community. The consistency, however, is an open form and a dizzying sensation from meeting the seemingly infinite.

Eco acknowledges that lists, both poetic and practical, imply a "hint of form" and, as a byproduct, order that joins even seemingly disjointed objects within a single entity (131). He refers to theological lists such as litanies and biblical genealogies, which prompt a "dizzying sound"—these lists rely on prolonged "rhythmic enunciation" rather than a referential quality that considers what has been included and excluded (118). Eco understands rhythmic enumeration and enunciation as embodying and composing a rhetoric of lists practiced since antiquity. The rhetoric of lists represents a "pure love of iteration" that aims to announce properties within a redundant manner (133). While poetic lists endeavor to articulate the ineffable, rhetorical lists engage a variety of devices with a fascination of gathering and collecting materials. The poetic engagement of lists produces what Eco describes as the rhetoric of lists, rooted in a medieval world that develops into the quite distinct practice of categorical lists.

# 2.1.3 Rhetorical and Categorical

Eco understands the rhetoric of lists as a distinctly medieval practice that we have continued to employ. The rhetoric of lists emerges in multiple forms such as the medieval attempt to list the dialectical properties of God—lion and lamb, alpha and omega, beginning and end, the source and the way, etc. Similar efforts emerge in lists where different words repeatedly represent the same property or object. At times, the rhetoric of lists appears organized in a "gradation," leading toward a climax in the height of intensity (134). Eco also includes parallel form within the rhetoric of lists where the repetition of a words or phrases binds thoughts and expressions together in a list of accumulation (137). Eco notes that conventional definitions of

rhetoric emerging from classical and medieval worlds lack the "dizzying voraciousness" that commits the rhetoric of lists down an endless path of gathering more (137). Eco's contribution affirms the list as a representative characteristic of a classical and distinctly medieval understanding of rhetoric devoted to expression a world that mirrors the multiplicity and hypertextuality of an encyclopedia. The rhetoric of lists guides Eco to a discussion about medieval encyclopedias, which reconfigure information through the interplay of form and organization such as the "mnemonic function" of memory (155). Eco understood medieval encyclopedias as "purely poetic" with a contemporary function that lies in the recognition that this "ancient information" is not referential but rather as gratifying and pleasurable without reliance upon referential and corresponding objects in the lived world (155–156).

Additionally, the rhetoric of lists embraces poetic and practical purposes with an urge of accumulation. For instance, he refers to museums and treasuries as exemplars of institutional collections committed to acquisition and growth that exemplify a performative rhetoric of lists engaged in practical action. Furthermore, the practical lists housed within and in response to these institutional collections a functional document corresponding to a predetermined time and place—such as the museum catalogue or inventory. Across time, however, these practical lists (which when contextually bound are referential, finite, and unalterable) become poetic, responsive to an ever-changing and open collection. The institution as a list and as a collection is always open, with possibilities for growth or revision. The institution itself responds to "a taste for accumulation and increase ad infinitum" (165). Eco's association of the rhetoric of lists with a focus on accumulation merges practical and poetic aims in the ad infinitum of material rhetoric.

Museums, rooted in a history of institutionalizing private accumulations of the "spoils of war," present a "voraciousness"<sup>23</sup> that simultaneously draws us toward them and creates an uneasy environment bordering oppression (170). Eco explains that generally speaking, the collection inherently resists a congruent or coherent order (169) but activates multiple, to use the language of semiotics, cultural and social *codes*, a notion discussed in detail in a later chapter. The order and organization of these institutional lists rely upon the social arrangement of culture.

As an example, Eco indicates that a space traveler unaware of our conception of art would find the holdings of the Louvre (which contains statutes, vases, portraits, mummies, archaeological findings, etc.) to be fully lacking coherence, order, or inherent form (169). We find meaning within the Louvre through our cultural structures that allows us to perceive coherence in the museum's organization, order, and form despite its historical and institutional impulse for accumulation reflective of a medieval era. Eco explains that this medieval commitment to accumulation and the rhetoric of lists continues to fascinate and attract contemporary attention. For instance, medieval collections containing holy relies and their adornments enamor and intrigue diverse audiences. He argues that even non-believers find appeal in both the relies and their elaborately decorated containers embellished with gems and precious stones (174). Eco understands this fascination as emergent from the rhetoric of lists and an unquenchable desire for accumulation granted temporal satisfaction in the dual pleasure found in both the material and aesthetic form (177).

Our fascination with the rhetoric of lists tied to accumulation continues into the Renaissance era with a transition to a "secular and scientific standpoint" that focused on the

<sup>&</sup>lt;sup>23</sup> This recognition of oppressive voraciousness refers to Paul Valéry's description of museums; he characterizes traditional museums as (a) dark, silent, and unfriendly, (b) lacking a context, and (3) an "oppressive" voraciousness (p. 170). Eco argues that modern museums have made efforts to alter (a) and (b) but maintain the sentiment of (c) from their very nature (*Infinity* 170).

knowledge of biological wonders (201). The exemplar was no longer holds holy treasures, relics, and elaborate adornments but instead cabinets of curiosity, or the *Wunderkrammer* (203). Eco describes the *Wunderkammer* as the achievement of a scientific "utopi[a]" or "dream" where all knowledge becomes completely and systematically classified in the accumulation of all that should be known (203–205). The *Wunderkrammer* shifts from engaging a rhetoric to lists toward a path paved with classification, fueled by the hope to uncover precise, concrete, and universal definitions—to identify and know the essence of objects in reality.

For Eco, these definitions of essence, which aim to expose the core qualities that encapsulate the totality of being, acquire the identity of dictionaries, and the more common definitions of properties that ground identification in multiplicity, experience, and interpretation construct encyclopedias. Eco's understanding of the world resembles an encyclopedic engagement where properties of lived experience influence and frame human knowledge.

Contrarily, the notion of the dictionary assumes complete or categorical knowledge of objects in the world determined by their essence. The notions of dictionaries and encyclopedias are foundational to Eco's interpretive semiotics, addressing various understandings and assumptions about possibilities for human knowledge.

# 2.1.4 Dictionary and Encyclopedia

Eco juxtaposes definitions of property and definitions of essence. He positions definitions of properties as consistent with the medieval tradition. These lists of the medieval world—in descriptions of God, in prayers and litanies, and even in the material rhetoric of relics and adornments—represent definitions of property. None of these efforts assume to achieve complete knowledge, total possession, or undisputed achievement of their subjects. The descriptions of God do not define the essence of the creator, the litanies do not fane to know the community of

saints in its entirety, and the material lists of holy relics resist human dominion. Instead, these lists announce properties characterized by openness of possibilities and diversity of interpretation. They rejoice in accumulation that continually points toward more unknown and unattainable properties. Within these definitions of property both the listing practice and the properties identified offer a means for knowing and defining resisting assurance that assumes essence can be articulated (217).

The scientific dream, on the contrary, strives for uncovering definitions, obtaining complete knowledge, and objectively uncovering essence (217). Eco roots efforts to define by essence in antiquity with Aristotle, who contends that essence correlates with substance and properties with accidents (218). To discover the essence of an object, one knows the object in its entirety. To recognize properties of an object, one sees only how an object reveals itself. The resurgence of classical world knowledge and culture during the Renaissance era ignites Aristotle's notion of essence in definitions of essence, which molded listing and collection practices.

Definitions of essence, likewise, prompt classification practices, demonstrated by the taxonomy of the natural world, governed by arrangement of kingdom, phylum, class, order, family, genus, and species. Eco understands these definitions (as well as definitions of properties) as lists to assist in knowing, identifying, and defining objects in the world. The paradox, for him, is that while taxonomy and classifications aim to produce definitions of essence, their descriptions, aiming toward completion, are often less helpful in specify objects in the world. For example, when helping someone identify a platypus, the classification of a "monotreme mammal" (resulting from efforts of a definition of essence) is less helpful than incomplete descriptions or definitions of properties (218)—what does the animal look like,

where does it live, when might we have encountered the platypus in an experiential manner, etc.? Definitions of properties mark our engagement with the lived social world. When attempting to understand the world around us we seek definitions of properties that describe rather than definitions by essence that classify. The properties that we list to define and understand the world contain evaluative information about the *topos* of an object. Definitions of properties recognize that objects exist within an intertextual and hypertextual world containing multidimensional interpretations. Definitions of properties mirror our everyday practices of recognizing and distinguishing things in the world (221).

In semiotic terms, definitions of essence act as *dictionaries* and definitions of properties act as *encyclopedias*. The encyclopedia represents a model of the world as lived, "on-going," "never finished," and resisting universal or permanent classification (231). The encyclopedic world embraces difference in understanding and experience whereas the dictionary, much like the definition of essence, seeks to provide specific and exact knowledge. Eco explained, early dictionary compilers feared the vastness and boundlessness of the encyclopedia (231). The encyclopedia produces a labyrinth of opportunities for uncovering new insights by associating known data in previously unknown connections (233). The encyclopedia embraces a "disordered accumulation" by offering what Deleuze and Guattari named the "rhizome," which allows for unforeseen and unexpected insights emergent from the intersections between and among interlocutors or nodes (237–238). The encyclopedia's design lacks any inherent hierarchy, origin, or conclusion; the order of the encyclopedia, like the order of the social world, occurs through the shared activation of commonly activated codes that construct cultures.

Where the encyclopedia and definitions of properties embrace an etcetera with "incalculable continuity" (240), the dictionary and definitions of essence frame a concluding

statement that encompasses the whole of an object's being. The list encyclopedia appears as "an *open maze*;" unlike the classical maze bound within a limited space, the open maze allows and encourages difference and multiplicity of interpretation emerging from the manner of engagement between and among signs, texts, and objects within the encyclopedia. As interpreters enter into the open maze of the list encyclopedia, they "experience the impossibility of getting out and hence of endless wandering" (241). According to Eco, this impossibility and endless wandering, on the one hand, attracts us to the poetic rhetoric of lists composed of endless properties that direct us toward meaning and, on the other hand, scare us by producing an anxiety and dizzying sensation that cautions our entry by escaping our control in its expansive scope. The list encyclopedia in its immensity simultaneously offers formation and "deformation" as points of connection emerge and (re)order human meaning (245).

Eco describes the impulse of deformation as characteristic of modernity, obsessed with a "love of lists, of the list *by excess*" (251). Lists of properties construct encyclopedic knowledge of the world; they often provide order that emphasizes qualities as central from meaning and interpretation. Likewise, however, lists of properties as encyclopedias also *deform* knowledge in the expansive immensity that embraces difference and offers infinite opportunities for interpretation, or in semiotics terms unlimited semiosis as discussed in Chapter 1 of this project. This trend of deformation, of using lists to destroy order and abolish the established structures of knowledge, is representative of modern literary style and mass media. This trend embraces encyclopedic knowledge through engagement with themes of coherence and chaos.

### 2.1.5 Coherence and Chaos

Eco identifies understands the encyclopedia list as taking two forms—coherence by excess and chaotic enumeration. Lists gain coherence by excess as entities and objects contain

some element of "kinship," whereas chaotic enumeration lacks "any apparent reciprocal relationship" (254). Mass media and cultural lists such as fashion runways, restaurant buffets, and department store window displays exemplify lists of coherence (353–354). These lists embrace a commitment to excess and accumulation, serving as a contemporary "substitute" for various historical collecting practices, such as medieval treasures and the Renaissance's Wunderkammern (354). Contrarily, Eco aligns chaotic enumeration with a disjointed incoherence such as the literary style of James Joyce's stream of consciousness writing (282). Eco contends that incoherence of chaotic enumeration prompts "enjoy[ment]" (281) and "delight" (321) that accompanies the dizzying sensation of the infinity of lists.

Eco differentiates Homer's catalogue of ships, which hinted toward an impression of infinity pointing toward the ineffable and incommunicable, from Joyce and Borges of list "out of a love of excess, hubris, and a greed for words, for the joyous (and rarely obsessive) science of the plural and the unlimited" (327). The lists that represent what has not been said differ from lists for coherence by excess and chaotic enumeration. The love of excess and accumulation, for Eco, can become a means for control or an opportunity to "reshuffl[e]" an encyclopedic world as one presents new paths for interpretive engagement (327). The chaotic list attempts to mirror a social world, inspiring exploration of new knowledge by reordering information.

Eco identifies the World Wide Web as the par exemplar of the mass media list of excess. He argues that the Internet is "infinite by definition," a quality inherent to its "constant evolution" (360). The Internet instills a feeling of "wealth[] and "omnipoten[ce]," but in its twofold identity as "both web and labyrinth," erases the boundaries between data and corresponding objects in the life world (360). The Internet becomes both the container and

means for producing infinite lists (363). In this section, Eco alludes to the Internet's position as the penultimate list that threatens to end culture in the triumph of data collection.

Eco's title, *The Infinity of Lists*, becomes particularly telling in his conclusion where lists not only point toward the ability to represent an infinity of endless objects but also an infinity of listing forms and styles. His project liberates the list from any one historical origin, genre, or motivation. Eco places the list in a voracious position that illuminates possibilities for securing form, whether practical and poetic, that can rhetorically define objects through essence and properties with possibilities to provide coherence through excess or chaotic enumeration.

Interchanges between and among these lists intersect at the meeting of the practical and the poetic—one can read poetic lists as practical and one can understand practical lists as poetic (374). According to Eco, lists ground the origin of culture as we negotiate how to make meaning of the world around us even as non-normal lists embrace a chaotic impulse that places the category within its lists of objects (396). As the list produces a sensation of vertigo, active interpretation and performative engagement with the world surrounding us becomes necessary.

Eco's task in *The Infinity of Lists* portrays a historically-responsive and culturally-significant understanding of lists, liberated from the modern interpretation narrowly confined and strictly committed to accumulation, order, classification, and control. Instead, Eco emphasizes the poetic possibilities of the performative practice of listing. He not only uncovers poetic lists in literary and written form but also identifies lists that surround our lived experiences, including urban landscapes, restaurant buffets, prayers, portraits, Internet algorithms, and musical scores. In its various manifestations, the list collects and expresses information, stressing the interpretive power of signification and performative practice of human communication.

Eco describes the notion of the list in a layered fashion through the following five coordinates discussed in the oppositional pairs that structure this section: bounded-boundless, practical-poetic, rhetorical-categorical, dictionaries-encyclopedias, and coherence-chaos. These metaphors articulate the infinity of lists in terms of variety and range. The list defies narrowly articulated motivates or styles. Instead, his theoretical projects on semiotics, cultural studies, medieval aesthetics, and literature texture the list; interestingly, examination of his earlier work has the power to extend the notion of the list as it is expressed in *The Infinity of Lists*. Such examination is necessary to understand how the list holds the simultaneous ability to establish culture and end culture in the dual demolition of signification and the human labor of communication in the totalization of the Internet age. Eco's work centers on the cultural and societal implications of mass media communications, pop culture, and contemporary trends. Eco carefully addresses the implications of the Internet in transforming cultures and societies and thus the Internet appears as a re-emergent theme in the corpus of his project.

### 2.2 The Mother of All Lists—The World Wide Web

This section explores key responses from Eco about the implications of the Internet age. Four subsections structure this account summarizing significant material from Eco written in 1996, 1997, 2000, and 2010. Eco offers a textured understanding of the implications of Internet technologies on social and communal life. Much like the description of lists articulated by Eco, his position on the Internet defies premature assumptions of "good" and "bad." While Eco expresses concern with Internet culture, he simultaneously advocates for governmental centers with the sole purpose of providing Internet accessibility (*Infinity*). Eco hoped that these sites would encourage human interaction. From its onset, Eco's concern with the Internet was its potential to limit human signification and thus human culture.

He discusses the Internet's influence on human capabilities to interpret and discern information critically, its consequences for privacy, its inherent permission to participate in Bentham's panopticon, its capability for watching and gathering information on each Internet user, and its impact on our ability to find and remember information. He terms the Internet, and Google as its exemplar, the 'Mother of All Lists' in its regular and consistent collection practices committed to ongoing and exponential accumulation of information (*Infinity* 360). Eco's primary concern was ensuring thoughtful engagement on Internet technologies. His responses to the Internet age occurred in his lectures, interviews, and social commentary that address the semiotic, social, and communal implications of the World Wide Web.

The first piece from 1996, "From Internet to Gutenberg," represents one of Eco's earliest and most direct responses to the emerging Internet age, situated within Italy's earliest participation and access to Internet technologies. This essay occurs prior to the Internet's achievement of widespread and ubiquitous global popularity. The year, 1996, offered an Internet platform much different from today's technology. More commonly referred to as the World Wide Web, the Internet of 1996 predated Google, YouTube, social media, and WiFi. The dotcom era was in its fullest force, with AOL as the most significant site. The first email site, Hotmail, was launched in July 1996. Connectivity relied upon phone lines, costing costumers by the hour. With strong Internet connections, users could download webpages in approximately 30 seconds (Manjoo).

1996—Hypertexts and Limits

In his November 12, 1996 lecture, "From Internet to Gutenberg," delivered at Columbia University for the Italian Academy for Advanced Studies in America, Eco compares and contrasts the Internet age with television and printing press media. He discusses the clashing of

written and digital communication and its implications on literacy and the sustainability to book formats. He compares this encounter to discussions of orality and literacy in the classical world. Eco turns to Plato's representation of the Greek god Hermes in the *Phaedrus* as the inventor of writing. He alludes to Plato's critique that writing will minimize our capability for memory. Eco acknowledges that books and other forms of written communication transformed the social capacity and role of memory but contends that memory has not been destroyed. For Eco, Plato's critique represents an attitude of *ceci tuera cela*, characterized by the suspicion that *this will kill that*. The phrase, *ceci tuera cela*, alludes to Victor Hugo's underlying theme in *The Hunchback of Notre Dame* that the book will destroy the cathedral—a suspicion Eco notes as re-emergent with the popularization of new communication technologies.

Eco overlaps the transition of the spoken and written word in the ancient world with debates about the consequences of the television age and the digital world of Internet media. He draws upon the work of Marshall McLuhan and his argument in *The Gutenberg Galaxy* that television and other image-saturated media counter paths of linear thought actualized in by the written word and the societal adoption of the printing press. According to Eco, Internet and computer technologies revert back to the linearity of the Gutenberg Galaxy by relying upon literacy and reading skills. Despite the computer's ability to manipulate images and communicate via icons, the very functions of the device require literacy.

Unlike books, however, the computer, digital software, and the Internet exist as *hypertexts*, as multidimensional networks where all nodes of information are connected and copresent. The hypertext combines information visually emerging in hyperlinks that bypass the necessary human labor of searching throughout the text moving forward and backward.

Primarily, remembering that he is writing in 1996, Eco exemplifies the hypertext through CD-

rom technology that many predicted would destroy the printed book in a *ceci tuera cela* (this will kill that) suspicion. Eco's prediction, however, clarified the lasting relevance of particular types of books.

Eco, books to be consulted such as dictionaries, encyclopedias, indexes, catalogues, and thesauruses fall victim to digital platforms with hypertextual qualities. No longer must dictionary users look up definitions moving from M to P back to M again. Instead, digital dictionaries (primarily as available on CD-rom software) form hypertexts by connecting nodes of information throughout the program. Eco anticipates a shift from books to be consulted to digital programming, rendering print platforms obsolete.

Eco forecasts, however, that books to be read will survive in their traditional form. While many assume that even books to be read will fall victim to television and computer media, Eco argues otherwise. He maintains that electronic mediated technologies cannot meet the durability and longevity of the book's material merits. The book, governed by literacy, asserts more thoughtful discernment and critical reflection than image-based technologies such as television. In this 1996 address, Eco argues that computer and Internet technologies, which share an engagement with literacy, offer avenues for more deliberate examination for critical interpretation. Just as writing transformed how we remember without eradicating human memory, Eco argues that digital and Internet technologies will drastically modify literacy without eliminating the need for books.

The interpretive engagement with hypertexts determines which books will survive and which will succumb to digital formats. Eco distinguishes systems from texts to understand where hypertexts exist and operate. He explains that systems such as alphabets and grammars offer

limitless linguistic possibilities—even finite systems provide infinite opportunities to uncover human meaning. From the system, countless texts are produced as a basis for encyclopedic engagement. Texts, however, curtail the endless potentiality of the system by generating a closed and bounded universe. Eco explains that systems, but not texts, are hospitable to hypertexts. Even texts such as Joyce's *Finnegans Wake*, which are open to wildly diverse interpretations and inquiries, do not offer endless expansion. We could not interpret *Finnegans Wake* as a recipe for sheet apple pie; the limits of the text govern interpretation.

Hypertexts are distinct from both systems and texts. Hypertexts create a platform for continual additions from each user; the hypertext operates akin to jazz music in a story that continues without a formal conclusion. Eco distinguishes producing infinite hypertexts from interpreting bounded texts. He celebrates the presence of both—the limitless possibilities of the hypertext and the wisdom gleaned from books. The hypertexts made possible by digital media will not conquer the book, obliterating it from social impact, but instead transform our modes of literacy. According to Eco, the more pressing problems presented by the Internet's electronic community are the isolation one feels when meeting an enormous and global network and the inability for one to evaluate the excess of information presented through digital media. Eco is cautious to full heartedly embrace the hypertext of the Internet without a dual commitment to the bounded world of books. While the vast landscape of the digital world encourages new horizons of freedom, books remind us of human limits, "the severe law of Necessity," that despite freedom we must attend to life and death ("From Internet," par. 69)—a lesson only books provide.

In this 1996 lecture, Eco addressed the value of Internet (hypertext) and book (text) media as they influence cultural engagement. He address the ways in which human meaning

emerges in the unlimited creativity offered by the hypertext that opens possibilities for new insights in its unlimited scope and in the limited form of texts that remind humans of the need to respond to limits. The following year, in a 1997 interview between Eco and Lee Marshall, Eco addresses additional implications of the emerging digital world. By the 1997 interview, the number of Internet hosts increased by approximately 6.7 million and the number of sites doubled (Marshall). The earliest wireless networks appear. Steve Job rejoins the Apple team, and Bill Gates becomes the world's richest businessman. Microsoft acquires Hotmail, and the domains for Facebook, Craigslist, and Netflix emerge. The power and influence of Internet technologies only became more powerful.

1997—Responding to Isolation and Data Surplus

The 1997 interview between Eco and WIRED correspondent Lee Marshall begins with Eco's advocacy for governmental support of a Multimedia Arcade, a public center or "multimedia library" with computer training and Internet access (par. 3). The first Multimedia Arcade opened in Bologna in 1997 and later transitioned into the Biblioteca Salaborsa. This Italian effort to increase accessibility to the digital world provided approximately fifty computer terminals connected to local high-seed Internet connection (par. 4). Marshall introduces Eco's position of Internet literacy as "a basic right" of citizenship (par. 5). Eco understood the Bologna Multimedia Arcade as a "pilot" site for a nationwide program to insure accessibility of the Internet in state-of-the-art public library settings in the construction of a "cybersociety" (pars. 5–6).

In 1997, the digital landscape of Italy contained approximately 300,000 regular Internet users (par. 10), which amounts to less than one percent of Italy's population at the time. Eco predicted an expanding scope of Internet users. Just printed materials took some time to gain

influence after the invention of the printing press, the Media Arcade and Internet technology would also take time to reach high levels of literacy (par. 12). The Multimedia Arcade would become a source for educating Italian citizens about digital literacy and offering a space for community engagement.

Eco envisions the Multimedia Arcade as a communal and civic space for interaction with others. The Arcade becomes a solution for the isolation problematized in his 1996 address.

Eco's concern carries into this interview as well; he states: "I don't see the point of having 80 million people online if all they are doing in the end is talking to ghosts in the suburbs" (par. 15). The value of the digital landscape is attract people from their homes to interact with one another. He envisioned that the space might offer communal screens for sharing interesting sites and other forms of social connection encouraged by the very structure of its architecture (par. 14). The Multimedia Arcade would deny a "one user, one computer" mentality for "communal opportunities" (par. 17). Eco urges that in time these connections will emerge.

Eco explains the divergent cultural perspectives about the role of the Internet from American and European standpoints. According to Eco, Americans understand the Internet as "a new phase of civilization" whereas Europeans view it more like "a desirable household appliance" (par. 18). He notes that a similar "enthusiasm gap" marked the onset of the television era where several years interrupted the European adoption of the American media trend (par. 18). However, Eco predicts that the Internet will not follow the same path of the American "triumph" in film and television production. He notes the rising number of non-English websites, specifically mentioning Norwegian, Polish, and Lithuanian sites (par. 20). These sites will prove "curious" for Americans when information is only available from foreign language sources. Eco expects that such scenarios will require Americans to "start thinking" by extending their cultural

awareness to embrace alternative cultural perspectives (par. 20). Eco considers this a positive outcome of the "anti-monopolistic nature" of the Internet and a practical reminder that controlling the technology is not equivalent to controlling the flow of information (par. 20).

The interview takes an abrupt turn that eventually returns to the theme of the Internet. Marshall asked Eco about his involvement in Italy's "new center-left coalition government" campaign that was elected in April 1996. Eco's public support for this government led many to suspect a potential appointment as the Minister of Culture (par. 22). Eco, however, denied the position before the offer even emerged. Eco explained that he refused the position based upon contrary understandings about the meaning of culture. For Eco, state protection of culture can only emerge in the appropriate conservation of "aesthetic products of the past—beautiful paintings, old buildings, medieval manuscripts" (par. 23)—a task already performed by the Heritage Ministry. The Minister of Culture position instead aimed to promote, understanding of culture tied to "ongoing creative work" (para. 23). The problem, for Eco, is that within his understanding of culture, creativity cannot be subsidized but must always be "anarchic capitalist, [and] Darwinian" (par. 23). For Eco, culture is deeply connected to collecting and collections of aesthetic production but cannot be imposed through institutional control. The anarchic, capitalist, and Darwinian senses of discerning culture equip interpreters with critical tools for "semiological guerrilla warfare," as framed in his now classic 1967 essay.

In this seminal essay, "Towards a Semiological Guerrilla Warfare," Eco urges television viewers to arm themselves with the cultural resources to thoughtfully and reflectively judge media messages. When a majority of the conversation centered on television producers and other gatekeepers of mass media communication, Eco redirects the focus to armchairs and those interpreters who sit within them. In the interview with Marshall, Eco explains that these "critical

tools" reflect "simple skills" that assist in perceiving the credibility and validity of information (par. 26). Eco explains that these simple skills allow someone to walk into a bookstore, discern its layout, and determine that a Harvard University Press book will not present the same information as a "cheap romance" novel (par. 26). These skills, however, are endangered as people compulsively consume television programming without careful thought.

These same skills dissipate when navigating the Internet in its expansive domain where one encounters not a bookstore but instead heaps of information dispersed across the floor (pars. 26–27). In such a setting, one must navigate, or in Eco's words "grope your way through," ambiguous and often misleading signposts (pars. 27–28). He responds to an environment where domain names can be owned by anyone and counter common assumptions about the name's corresponding content. Eco offers the example of an antifascist watchdog group that owns domain names that would attract neo-Nazis (par. 29). Developing discernment in these signs becomes the critical tools necessary for navigating the Internet.

Eco's second primary concern, also introduced in his 1996 address to the Italian

Academy for Advanced Studies in America at Columbia University, is educating people about
how to advance their critical interpretive skills. Just at the Multimedia Arcade becomes an
avenue to respond to his concern about user isolation, the Arcade and its capability to connect
users provides a path for response through shared competencies. Eco explains that when tasked
with discerning critical judgments of excesses of data, one can learn through trial and error, but
the "quickest and most effective method" stems from users sharing various levels of
competencies so that their experiences of trial and error can be pooled together (par. 30). The
value of the Multimedia Arcade is its role as a gathering point for Internet literacy education and

a field for cultural creativity—the Arcade not only prepares interpreters of a hypertext but also authors of texts.

Marshall pushes Eco to consider the textual implications of a writer's medium of expression whether it is pen and paper, typewriter, or computer processor. Perhaps not always apparent through textual analysis, the mode of expression has significant implications on the human condition (par. 36). Eco considers that had digital technologies and Internet literacy been available to Margaret Mitchell, *Gone with the Wind* might have resembled something more similar to Joyce's *Finnegans Wake*. Joyce, on the other hand, also lived, thought, and worked "always online" (par. 32) in a cybernetic and encyclopedic world of what Eco (1982) termed the *chaosmos*.

Eco's hope for the Internet lies in its expression of freedom and creativity for reorder knowledge to create human meaning. His aspiration for the Multimedia Arcade is to provide communal connections between and among people with opportunities for digital literacy training. Eco explains how the Internet counters McLuhan's famous claim "the medium is the message" (par. 42). From Eco's perspective, McLuhan's claim work is "overrated" popularized by his keen ability "for trend-spotting" (par. 42). Eco argues much of the Internet as a medium depends upon our engagement; "it does not reduce everything to the fact of its own existence" (par. 43). Likewise, in the digital environment of 1997, Internet resisted distracted use due to the amount of time necessary to navigate from one site to the next and to the financial toll such navigation cost its users (par. 44). Again, Eco emphasizes that the Internet and digital environment of a computer-mediated world does not embrace the *ceci tuera cela* attitude of technological transition but instead transforms literacy.

The interview concludes with Marshall asking where Eco would go if he had the ability to time travel. Eco's response is hypertextual; he writes: "I already travel in the past: haven't you read my novels? And as for the future—haven't you read this interview?" (par. 52). For Eco, the world exists as a hypertextual encyclopedia where shadows of the past and glimpses into the future stand side by side with the present moment. The insightful predictions of this interview urged Cosimo Bizzarri to announce that his "prophecy came true." Within the twenty years since this interview, Eco's concerns about isolation and data overload are continuing to receive scholarly attention despite the changing digital landscape (Carr 2015, Jackson 2008, Turkle 2011).

In the three years spanning between the Eco-Marshall interview in 1997 and his essay, "The Loss of Privacy," in 2000 significant changes transformed the World Wide Web. The dotcom bubble burst in 2000. Google, Yahoo, Paypal, and Napster emerged increasing the connectivity between and among people around the world. Internet accessibility spread across geographical distances. Approximately half of American households offered Internet access and early computer viruses began to threaten cybersecurity. President Bill Clinton offered the first presidential webcast and the Twitter domain comes online. Bill Gates forfeits his title as CEO of Microsoft to Steve Ballmer. These changes presented an environment that presented concerns about the threat of privacy and possibilities for increasing surveillance.

2000—Concerns for Private Life

Three years later, in 2000, Eco delivered an address titled, "The Loss of Privacy," at a conference organized by Stefano Rodotà in Venice, Italy that was later published in his collection of essays, *Turning Back the Clock: Hot Wars and Media Populism*. The essay positions the Internet as the driving force in the "globalization of communication" and thus as a

threat to boundaries. Eco argues that the notion of boundaries has existed for the entirety of the animal kingdom (77). Eco explains that historically and instinctually we associate boundaries with protection for the person and for the community (77). Thus, the Internet's threat to boundaries questions "the very definition of the nation-state" and the security it provides (79). The Internet's elimination of boundaries relates to its regular inclusion of "international and multilingual chat lines" that make it easier for virtual communities to form despite significant geographical distances. These globalized forums contradict the conventional understanding of nation state boundaries.

Eco attends to two paradoxical consequences of "collaps[ing]" boundaries in the Internet age (79). First, the free flow of information on the Internet is difficult for nation states and governmental entities to censor; people around the world have greater access to information and current events in real time (79). Second, the Internet simultaneously offers a powerful resource for institutional collection of our data—it becomes possible for corporations, the government, data collection agencies, and often unnamed institutions to track our correspondence, travel plans, interests, curiosities, and preferences (79). As such, the Internet becomes a basic threat to private life with the primary predator being not hackers but online data collecting software.

According to Eco, Internet hackers are "no more frequent and dangerous than the highwaymen who beset traveling merchants" (79). The more serious and frequent threat comes from the cookies and algorithms of information collection that we encounter in regular Internet activity (79). The consistent and persistent practice of information acquisition comprises the industry of big data. Many compare this practice as the onset of George Orwell's Big Brother in 1984, but Eco, instead, compares it to Jeremy Bentham's panopticon—an environment of total surveillance. Unlike the Orwellian setting of "a restricted group" of spies imposing security upon

the unwilling masses, Bentham's panopticon allows many unseen observers to monitor and scrutinize a single and specific person (79).

The surveillance within the panopticon created by the Internet age places each citizen as the subject of inquiry for the "global economy in its entirety" (80). Eco likens the entity to Michel Foucault's conception of Power, which finds support from other players to reciprocally back one another. Eco explains, "The member of one center of power who spies on others making purchases in the supermarket will be spied on in turn when he pays his hotel bill with a credit card. When Power no longer has a face, it becomes invincible. Or at least difficult to control" (80). This omnipresent observer that continually examines our every act in an Internet society, likewise, becomes omnipotent.

Eco laments what he views as a collective "renunciation of privacy" (81) as an "assault" and as a "social cancer" (87). The few defenders of privacy—those with secret business dealings or researchers preparing their findings for public distribution—battle "exhibitionism" encouraged through mass media outlets (82). His social commentary identifies reality television shows as instances of exhibitionism encouraged on a societal level through press, television, and the Internet as well as the widely accepted public tendency to engage private conversations in public settings (87).

Eco understands this attack on privacy as not only a legal issue but also one with moral and social implications. He urges for the protection of privacy for the benefit of its defenders, of those "who no longer know how to defend themselves," and for children who are "corrupted" by the example of their parents who willingly and voluntarily relinquish information about their private lives (87). In an era of waning privacy when exhibitionism seems the only option, no behavior becomes so outrageous to be deemed socially unacceptable We willingly display

personal information accepting a new era devoid of privacy, freely offering our consent and accepting recognition that those who desire the data will stop at nothing to gain access to it.

By the time of this reflection on WikiLeaks, Internet connectivity quickly multiplied to mobile devices, televisions, and tablets. WiFi introduces wide spread Internet access around the globe at seemingly instantaneous speeds. The possibilities of Big Data reach new platforms and 24-7 data collection becomes the norm where Google Flu Trends portrayed the potential of predicting flu season in advance to the Center for Disease Control. Social media encourages our voluntary forfeiting of information in Eco's framing of the panopticon of total surveillance made possible by Internet technologies. The Internet becomes the primary outlet for information and simultaneously becomes the largest collector of information—and as such the penultimate list with the power to annihilate human culture in this all-consuming outlet of lists.

### 2010—WikiLeaks

As privacy becomes increasingly precarious in the Internet Age and the collection of information and data become financially valuable resources, WikiLeaks and other forms of hacking become common practice. Eco addresses this phenomenon in his 2010 essay, "Thoughts on WikiLeaks," which frames these information breaches as "a false scandal" that simultaneously introduces significant public implications (217). From Eco's standpoint, WikiLeaks are false scandals because as the private meets a public arena we only uncover information already known or, at least, suspected in gossip and private conversations.

Specifically, he notes that Hilary Clinton has suffered worse harm than the "supposed victims" (including Berlusconi, Sarkozy, Gaddafi, and Merkel) (218). The scandal of public access to confidential information rests primarily in the realization that this material already rests in the public domain.

This era of surveillance becomes circular rather than one-directional—while government officials have the ability to watch, observe, and track every Internet user, we can uncover confidential information about governmental officials through the work of hackers, who often work as "the avenger of the citizen" (220). The information garnered then becomes the prey of journalists who act as gatekeepers determining what information should reach public consumption and which should remain secret—and often "even negotiating with the political power" in deciphering this determination (220). The question then becomes how can governmental powers maintain their position.

Returning to the context of Clinton's involvement in WikiLeaks, Eco argues that with these information breaches, the public gained awareness that her secrets were "empty ... removing all power from the Power" (221). The lesson continues the position presented in his 2000 essay problematizing the loss of privacy in the Internet age—the Internet can no longer serve as a platform for confidential information. According to Eco, the new platform for confidentiality must move like the crayfish—and thus backward—to horse drawn carriages and private meetings in lonely rural settings (221–222). The Internet becomes for frontier where pools of information where confidentiality and privacy become privileges of the past.

Eco's reflections on the Internet offer significant insights. In sum, he considers the implications of digital technologies on print media and memory. He emphasizes the possibilities for reordering information in the ultimate hypertext to reveal avenues for new knowledge. He cautions us about user isolation and data surplus, and he offers recommendations for response. He echoes his 1967 call for semiological guerilla warfare that arms Internet users with critical thinking tools that maintain culture, and he warns that our willing acceptance to forfeit our information squanders our private lives with serious consequences on social, political, and

cultural life. He frames the Internet as the Mother of All Lists that can simultaneously erase human culture if we thoughtless adhere to his algorithmic control. The lists that formed culture and the lists that contextualized cultural transformations would disappear in a total reception to the Big Data techniques of the Internet Age. This juxtaposition between the list's power to found culture and destroy culture motivates this project in the hope to protect and promote the material culture and performative listing practices that enrich our lives and fuel signification and the human labor of communication.

#### 2.3 Intersections

Within a contemporary world, Eco frames the Internet as the 'Mother of All Lists,' with Google as a par exemplar of the collection impulses that characterize the Internet age (*Infinity*). His concern is that such an era, if fully embraced, might limit or even eliminate the engagement of signification and thus destroy human engagement with culture. Eco specifically ties this concern to the ability to engage in cultural meaning making and critical judgments. His concern is that the over-emphasis on information collection and algorithm determinations will threaten the interpretive impulses of human signification and human labor of communication—that the growing strength of Internet lists minimizes the social treasury that construct cultures, social treasuries from where human interpreters draw insight.

Although Eco's only work directly and entirely devoted to the list appears rather late in his career, the theme and interest emerged early in his life. Eco's intellectual biography contains events and interests that prepared him for an examination of the list. For instance, the liturgies of the saints faithfully repeated in his Catholic upbringing represented his understanding of the rhetoric of lists; the list as a device in the avant-garde literature of James Joyce and Jorge Borges played with themes of chaos and coherence that became characteristic of modern and

postmodern thought. Eco's early work, centered on medieval aesthesis, emphasized a consistent acknowledgement of the list's poetic and aesthetic role in addition to its pragmatic function.

Eco's interest in the list is not inconsequential or coincidental. The notion of the list emerged in his youth and re-emerged as a significant point for consideration throughout his life and career. While Eco regularly includes lists in his novels and his earlier works extends the central coordinates of the list in important theoretical ways, he later work explicitly introduces this notion to a more general audience through exhibition at the Louvre.

Eco's project stands as the catalyst for this inquiry and even frames its question related to how to maintain cultural signification within an era where Internet technologies attempt to totalize and conquer material rhetoric and culture. Eco's semiotic theory carefully aligns culture with signification tied to human meaning, understanding, and interpretation. Signification, for Eco, is distinct from communication models that focus on information transfer and sender-receiver models that simplify the phenomenon of human communication. For Eco, communication requires the embodied human labor of meaning making in the activation of cultural codes as avenues for insight. Interpretation allows involves signification and communication in the encounter of historical and cultural contexts that shape meaning.

Eco summarizes the material in this chapter in a 2009 interview with the prestigious publication, *Der Speigel*. The interview coincided with his exhibition at the Louvre focusing on the theme of the list. The interview begins with a simple summary of Eco's position articulated repeatedly throughout this chapter: "The list is the origin of culture" (par. 2). The first section of this chapter recounts the infinite manifestations of lists and their corresponding cultural influence. The interview's conclusion then directs its attention to the Internet and Google as its par exemplar where he announces the danger of Google for today's youth in the inability to

discriminate endless information of Internet. The conclusion of this essay culminates the reflections that comprise the second section of this chapter focusing on the social, political, and cultural implications of the Internet Age. Internet lists if not thoughtful and critically tempered have the power to destroy the vibrancy of human culture where algorithms replace the human collector and the human labor of collection. When the algorithm becomes the sole code for uncovering meaning, culture becomes an engendered phenomenon. Here lies Eco's concern.

This chapter established the foundation to understand Eco's understanding of the list and the social influence of the Internet. The next chapter addresses the theory of the text, emerging in Eco's early work on cultural studies. Eco's work on the text is dynamic and textures his semiotic insights—the chapter explores the intersections between and among text, hypertext, and intertextuality. Specifically, the chapter seeks to understand how the list operates as a text and hypertext. Eco announces concern with universal implementation of the Internet as a hypertext but elsewhere acclaims the notion of hypertextuality. The chapter explores the richness of interpretation associated with various forms (open versus closed texts) and functions of texts (hypertextuality and intertextuality). The textual qualities of information and culture framed Eco's earliest work and, likewise, provide powerful insights to understanding how to protect and promote in the infinity of lists in a modern era where big data threatens to replace human collectors and listing practice.

### Chapter 3:

List and Text: Interpretive Possibilities

Eco explicates the notion of text as a dynamic and vibrant force offering breadth of interpretive possibilities displayed by variant degrees of openness. For Eco, openness is fundamental to understanding as texts engage the interpreter as participant. Eco's now classic book, *Opera Aperta* (translated as *The Open Work*) associates openness with interpretation in the interactive exchange between text and interpreter. Variant degrees of openness emerge from the interpreter's ability to participate in uncovering meaning in a text. The open work makes possible intertextuality (exchanges between texts) and hypertextuality (the co-presence and simultaneous emergence of texts) that empower signs with interpretive insight. Eco's early work on aesthetics and cultural theory guided his shift to interpretive semiotics. This chapter introduces, explores, and extends the open work, seeking implications for understanding the list as a text that introduces interpretive possibilities with exchanges between and among texts and readers.

This chapter focuses specifically on the origins, renditions, and implications of *The Open Work*, originally published in 1962 as Eco's second book (following the publication of his graduate thesis, *Il problema estetico in San Tommaso/The Aesthetics of Thomas Aquinas* in 1956). This chapter contains four sections. The first section, "Situating *The Open Work*," relies upon commentaries that situate the English translation of *Opera Aperta* within an intellectual community, foreshadowing its central themes. The second section, "Reviewing *The Open Work*" turns to Eco's writing by exploring *The Open Work* in its 1989 English translation. The third section, "Joyce and Chaosmos," turns to the final chapter of the original edition of *Opera Aperta*,

published separately in consecutive renditions. Eco explores the poetics and aesthetics of Joyce's work as an echo of a medieval world. The fourth section, "Extending *The Open Work*," considers the implications of framing the list as an open work.

This chapter explores the intersections between and among interpretation, text, and openness as early but persisting themes for Eco (Caesar; Robey). *The Open Work* not only garnered Eco public acclaim as a scholar and intellectual (Robey viii), but it also announced the interwoven connections among three of Eco's primary interests—medieval thought, the avantgarde, and popular culture (Caesar 1). These interests remain primary into Eco's later works and texture his interest in lists. The chapter explicates the list as a text with interpretive possibilities that embrace openness, intertextuality, and hypertextuality.

# 3.1 Situating The Open Work

The publication of *The Open Work* was significant in Eco's career and thought. The work's central theme is openness, which forms and shapes interpretation (Robey viii). David Robey's<sup>24</sup> interpretive introduction to the 1989 English translation of *The Open Work* situates the volume as a responsive compilation of the first three renditions of the book appearing in Italy in 1962, 1967, and 1976. This section refers to Robey and additional scholars who situate the importance of the project and its implications. Together, these commentaries on *The Open Work* provide insight to central themes that structure the later review of the book.

According to Robey's introduction, while the English translation contains essays from the various Italian editions and omits other segments, the book and Eco's larger project maintains consistency (xv). The central theme of openness directs the work toward two consistent and lasting implications tied to interpretation—an emphasis on "multiplicity, plurality, or polysemy";

<sup>&</sup>lt;sup>24</sup> David Robey is an Emeritus Fellow of the University of Oxford's Wolfson College. Robey taught Italian and published on medieval Italian humanism, Renaissance poetry, and the literary work of Dante.

and an interactive engagement between reader and text (viii). Significantly, Eco's work countered the idealistic aesthetics of Benedetto Croce (1866–1952),<sup>25</sup> which commanded the conversation regarding art and culture during the 1950s and 1960s.

Croce purports an idealistic assumption that aesthetic meaning transports directly from the artist's mind to the viewer's mind via the channel of artwork. This idealistic aesthetic "dominated" the Italian academic scene with wide social influence, first emerging during the Fascist era and continuing through the decades immediately following World War II (Robey viii). According to Robey, this degree of influence is "without parallel" (viii). Robey describes Crocean aesthetics as rooted in a "pure intuition/expression" (viii) that allowed for the direct communication of art's meaning from the artist's mind to the mind of the viewer (ix). This Crocean perspective positions art as an "unchanging entity" and the idealistic aesthetic as necessarily embodying "unity" (ix). This position presupposed that the "material medium" of expression was insignificant in transferring the expression of pure intention from artist to receiver (ix). Similarly, the historical circumstances surrounding the creation of the artwork and the life of the artist were "irrelevant" (ix). From a Crocean mindset, historical moment, biographical information, and standpoint composed "human faculties" significantly distinct from genuine "artistic expression" (ix). Eco's position in *The Open Work* is "completely and radically opposed" to Croce's idealist aesthetics of artistic intuition and expression (ix).

Eco's work on aesthetics, interpretation, and the notion of text countered the basic assumptions of Crocean aesthetics. In fact, Robey considers Eco's work "anti-Crocean" (ix), developed with significant influence from his teacher and graduate mentor at the University of

<sup>&</sup>lt;sup>25</sup> Benedetto Croce (1866–1952) was an Italian philosopher whose work addressed history and aesthetics. Croce received sixteen nominations for the Nobel Prize for Literature and held particular political and social influence in his roles as Member of the Italian Senate (1948–1952), Member of the Italian Constituent Assembly (1946–1948), Minister of Public Education (1920–1921), and Member of the Italian Royal Senate (1910–1946).

Turin, Luigi Pareyson (1918–1991).<sup>26</sup> Pareyson offered an aesthetics of formativity and pluralistic understanding of interpretation as an alternative to Crocean idealism. Pareyson's aesthetics was foundational to Eco's graduate education and his thesis and first book, *The Aesthetics of Thomas Aquinas*. Pareyson's aesthetics shaped much of Eco's work (xxv).

Following Pareyson's influence, Eco sought to explore the tension between modern art and classical/traditional aesthetics. Eco positioned classical/traditional art as generally unambiguous—relying on the work as a channel in prompting a response from audiences and critics that moves in a particular direction of meaning (Robey x). Modern art, however, aimed "deliberately and systematically" for ambiguity (x). For Eco, Franz Kafka, Bertolt Brecht, Symbolist poets, and, most specifically, Joyce represent modern art's devotion to ambiguity. Joyce's *Finnegans Wake* serves as the *par exemplar* of the modern open work by resisting a singular subject matter and for variant possible interpretations without one primary meaning. When encountering the novel, the reader enters a horizon of multiple appropriate interpretations that leave the reader to navigate and discern an interpretive path (x). Eco terms this defining characteristic for interpretive possibilities as openness. Openness directly corresponds to the depth of interpretive possibilities existing between text and reader/listener/viewer/recipient.

While traditional art confirms and reinforces conventions by affirming their cultural authority, modern art, seeped in openness, works in direct contrast. The ambiguity of the open work emerges from the "contravention of conventions" (Robey xi). The modern open work counters conventions and thus "denies" their cultural authority, prompting, instead, ambiguity that invites diverse and multiple horizons of interpretation (xi). Ambiguity occurs in the

<sup>&</sup>lt;sup>26</sup> Luigi Pareyson (1918–1991) was a Catholic Italian philosopher with a longtime affiliation with the University of Turin. In addition to his time as a faculty member, Pareyson graduated with his doctorate from the University of Turin in 1939 with a dissertation on Karl Jaspers, first published in 1940. Pareyson was the author of nineteen books dealing with themes tied to philosophy, aesthetics, and interpretation.

deliberate denial of the "ordinary rules" of conventions that express cultural meaning with fewer possibilities for interpretive response (xi).

Robey explains that Eco does not assume that open art is necessarily better art. While he appreciates a work's openness and its corresponding interpretive possibilities, he, likewise, notes that various forms of art accomplish different ends. Robey portrays *The Open Work* as "an equation" that takes into account fluctuating degrees of openness, information, ambiguity, and division from conventions (xii). "Artistic value" is not the direct byproduct of the interpretive possibilities generated by the open work (xii). As an equation, the open work assists one to recognize distinctions between traditional and modern art forms but does not shed insight into determinations of beautiful-ugly, good-bad, or art-nonart. Instead, Eco's evaluation of art rests once more in the influence of his mentor, Pareyson, whose notion of organic form closely aligns with what Eco terms "controlled disorder" in the "organic fusion" of diverse and variant aesthetic elements (qtd. in Robey xii). This insight recognizes that, even in the most open of open works, the text directs the interpretive process and, thus, public reaction (xii). Whereas Croce's aesthetics understands art as the channel of unitary meaning from artist to audience, Eco places meaning in the exchange between the art/text produced and the interpreter. Robey explains that Eco resists an aesthetics that simply places meaning or value in text, artist, or interpreter.

Robey appreciates Eco's acknowledgment that art plays an important and primary role in understanding transformations of self, embodied in the lifeworld. Art directs us in a path toward attempting to understand and uncover meaning and allows us to respond to contemporary crises by disabling conventions of meaning to offer new ways of engaging prevailing relationships and modes of existence. In its ability to renew these possibilities and create new relationships that

transform conventional knowledge assumptions of culture, art has political implications, even when its content is not "explicitly political" (xv). In fact, for Eco, within a modern world, the open work provides resources for human interpreters to "laboriously sketch[] out" new possibilities of meaning (xv). Eco discusses this connection in relation to Joyce's poetics.

Robey emphasizes Eco's particular interest in the intellectual and biographical overlap between Joyce and himself; in Joyce, Eco found "a clear analogy" to his own aesthetic and intellectual training and turn from a Thomistic upbringing that later regains hints of "nostalgia" for Catholicism's medieval commitments (xv-xvi). Despite its exclusion in the English translation of *The Open Work*, Robey addresses Eco's primary book on Joyce, *The Aesthetics of Chaosmos*, which was the original concluding chapter of *Opera Aperta*. From Eco's position, with *Ulysses*, Joyce produces a "reverse [Thomist] *summa*," and according to Robey, Eco's semiotic theory, likewise, resembles a "Thomist *summa*" (xvi). The distinction, however, is that while Aquinas's work produces a "metaphysical" natural order, Eco and Joyce make no claim for an objective reality of Truth (xvi). In fact, Eco's semiotics follows his anti-Crocean aesthetics instilled with multiplicity, plurality, and difference, distinguishing it from much of his contemporary cultural and aesthetic thought.

Unlike many of his contemporaries, Eco did not consider popular art to be inherently problematic. However, he critiques the "bad popular entertainment" that pervades cultural experiences (Robey xvii). Eco associated bad popular entertainment with an overly simplistic engagement with the world that avoids the consequences and constraints of historical moments by reaffirming conventions with blind alliance. Bad popular entertainment encourages its audience to act as consumers based upon "conformism and passivity" (xviii). As a remedy, Eco urges for "honest' entertainment" that embraces the difficulty of existence by acknowledging

the "problematic character" of historical circumstances, requires "reflection and criticism," and struggling to interpret the world in a manner that permits opportunities for change (xviii). Eco's honest entertainment counteracts the pervasiveness of bad popular entertainment by liberating its audiences to think and act as a byproduct of thoughtful interpretation.

Robey explains how this position on honest popular entertainment aligns with the open work's invitation for participatory engagement and political implications by permitting interpreters to alter the existing social order. Many consider Eco's political involvement connected to this project, but Robey contends that Eco's work is intellectual rather than political; despite Eco's private political positions, he distanced his work from direct connections to the Italian Communist Party, Marxism, and other political leftist groups. In fact the view of art proposed in *The Open Work* and later in *Apocalittici e integrati/Apocalypse Postponed* directly countered the view of art propagated by the Italian Communist Party (Robey xviii).

With Eco's exploration of interpretive practices, human meaning, and cultural insights, Robey situates *The Open Work* as a precursor to his semiotic theory largely conceptualized when working on translations of his books. While he was overseeing the translation of *Opera Aperta* into French in 1965, he encountered the structuralism of Roman Jakobson and Claude Lévi-Strauss, which prompted him to revise several aspects of his own writing (xviii). According to Robey, structuralism was the primary source for Eco's early semiotics with later influence from American pragmatist Charles Sanders Peirce and post-structural trends (xviii). The attempt to translate his semiotics into English prompted a second shift with the publication of *A Theory of Semiotics* written directly in English rather than Italian. Rewriting the work caused Eco to rethink the project of semiotics after several failed attempts at translation. With *A Theory of Semiotics*, Eco produced, in Robey's opinion, his "most advanced and systematic semiotic work"

by integrating and extending his earlier thought (xix). Due to the clarity and significance of *A Theory of Semiotics*, Eco then translated the book from English to Italian and elaborated it with *Semiotics and the Philosophy of Language*, first published in 1984 (xix).

For Robey, Eco, like Joyce, reflected a Thomistic influence but never assumed the metaphysics of natural order. Eco did not mistake theory for a real, objective, or empirical world. Robey observes Eco's persistent opposition to pretentious claims of universal, accurate meaning. Eco rejects an "ultimate truth, the structure behind all structures" for a life world consistently and forever beyond our "intellectual grasp" (xxi). Robey identifies the semiotic commitment to multiplicity as a response to the "disorder, instability, and essential incomprehensibility of the modern world" announced in *The Open Work* (xxi). Together, these works seek to understand the dialectic of order and disorder without ever stepping into a "rationalist explanatory structure" or a completely relativistic, nihilistic position devoid of ground (xxi).

Robey extends Eco's ongoing commitment to multiplicity with three semiotic themes—unlimited semiosis, abduction, and encyclopedia. Two of the themes (unlimited semiosis and abduction) emerge from Peirce's influence on Eco; in fact, Robey credits Peirce's growing popularity in Italy and abroad to Eco (xxii). Peirce's work provided a path from which Eco could escape the confines of structuralism that initially motivated his move to semiotics (largely influenced by Eco's exposure to French structuralism during the 1965 French translation of *Opera Aperta*). Robey explains how each of these metaphors—unlimited semiosis, abduction, and encyclopedia—reflect the theme of multiplicity of interpretation that binds consistency between *The Open Work* and his later semiotic projects.

The first metaphor, unlimited semiosis, is the ongoing and unending performative interpretation of signs that result in the production of new signs. Robey explains how unlimited

semiosis resists reification from strictly stable forms and a narrowed focus on organization alone (xxii). Instead, unlimited semiosis moves with unanticipated and unexpected turns as multiple meanings emerge simultaneously and consecutively.

The second metaphor, abduction, is Peirce's alternative logic to induction (moving from case to rule) and deduction (moving from rule to case). Instead of a linear path for logic and judgment, abduction attends to both case and rule allowing new hypotheses and avenues for interpretation to surface. Eco associates the performative engagement of abduction with a Sherlock Holmes interpreter stealthily uncovering meaning in the combination and connection of signs (cases) and codes (rules) in a mode akin to a detective novel.

The final metaphor addressed by Robey, the encyclopedia, is a mazelike model of existence, acting as a "net," "labyrinth," or "rhizome" that provides endless possibilities for connection in the creation of meaning (xxii). The encyclopedia offers increased freedom for and demands participation from the interpreter by permitting immeasurable potential connections between wildly diverse signs and codes. For Robey, the interpreter enters the encyclopedia, embarking on a journey of interpretation among inexhaustible and incalculable paths made possible by the unlimited semiosis of signs and codes; discerning an interpretive path is an interpretive act of abduction (xxiii). Unlimited semiosis, abduction, and the encyclopedia acknowledge the hypertextual presence of multiple texts emerging at once and the intertextual exchanges between texts. Eco offers a semiotic theory that not only allows for multiplicity in interpretation but encourages it by extending beyond the bounds of structuralism.

While Eco's semiotics extend beyond structuralism with his notions of unlimited semiosis, abduction, and the encyclopedia, his work maintains traces of the structuralist thought that grounded his initial ventures towards semiotics. Eco relies upon sign systems that refer to

real objects in the life world, without universally-determined meaning (Robey xxiii). Instead, historically contextualized sign systems produce these signs that historical moments can counteract or negate. Eco appreciated sign systems that could serve as tools through which we interrupt and intervene historical processes with the potential for change (xxiii). By the late 1970s, in *Lector in fabula*,<sup>27</sup> Eco opposes structuralism's assumptions of objectivity (Robey xxvi). Instead, he urges for "interpretive cooperation" in the relationship between reader and text, in order to escape "unchanging universal structures" (xxvi) and restore temporally-situated interpretations based upon the presuppositions of standpoint.

Within A Theory of Semiotics, Eco identifies the role of art in the rhetorical context of "code-switching" via mass communication platforms. For Eco, cultural codes act as holders and carriers of human meaning, and rhetoric functions as the interchanging and transferring of meaning between and among these codes. Robey explains that semiotics is the culmination of communicative acts that affirm or demolish the "complexity" of signs within cultural codes of human meaning (xxvii). Eco's semiotics embraces the multiplicity of a pluralistic view of culture and theory that is "hostil[e]" to universal claims that "necessarily misrepresent" the world in which we live (xxvii). Thus, theoretical work requires revisionary practices. Robey explains that Eco viewed his own work as "tentative and provisional," always situated within public conversations (xxviii). Eco acknowledged restraints on human knowledge that limit theory and command an ongoing revisionary task of rethinking, updating, and editing.

Robey concludes his introduction by turning to *The Name of the Rose* as a testament to the lasting influence of Eco's presemiotic writings represented in *The Open Work*. The semiotic

<sup>&</sup>lt;sup>27</sup> Eco published *Lector in fabula* in 1979 with the Bompiani publishing house in Milan, with which he had a long-standing association. English translations of portions of this book appear as significantly influential to *The Role of the Reader*, particularly its first chapter. *The Role of the Reader* also includes English translations of segments from *Opera aperta, Apocalittici e integrati, Forme del contenuto*, and *Il Superuomo di massa*.

and theoretical influences of the novel are well documented in literary criticism and Eco's own response in *Postscript to The Name of the Rose*. Eco describes the work as "postmodernistic" (qtd. in Robey xxix), clarifying the vibrancy of multiple appropriate interpretations without one definitively correct path for meaning. Eco announces the abductive engagement of the main character, William of Bakersville, in investigating a series of deaths in a medieval abbey; likewise, one finds an encyclopedic world of countless connections between and among signs and codes in the evolution of unlimited semiosis (xxx). Furthermore, Eco uses a monastic library setting to problematize a singular path toward absolute truth within the labyrinth of life where multiple paths toward meaning emerge without one, single path prevailing (xxx–xxxi).

The novel, for Robey, represents Eco's task in *The Open Work* when opposing idealistic aesthetics that limit artistic meaning to one correct interpretation, eliminating all alternatives. *The Name of the Rose* becomes a story-form effigy, embodying Eco's response to impositions of universality that inappropriately announce knowledge of Truth. Eco's work, instead, becomes a project of multiplicity and plurality that encourages participatory engagement between interpreter and text from his presemiotic works onward.

In addition to Robey's introduction, various scholars comment on the fluid transition of Eco's project from cultural aesthetics to interpretive semiotics that later appear in practice throughout his literary efforts (Bondanella; Caesar; Rauch; Seed). For instance, Irmengard Rauch<sup>28</sup> situates openness in literature, linguistics, and semiotics and as the connecting link between *The Open Work* and *The Role of the Reader*, and David Seed<sup>29</sup> claims that Eco "anticipates" Roland Barthes's call for "active collaboration" with the reader (74). According to

<sup>&</sup>lt;sup>28</sup> Irmengard Rauch is a semiotician whose seven books address linguistics and semiotics. She served as president of both the Semiotic Society of America and the International Association of Semiotic Studies; additionally, she received the 8<sup>th</sup> Thomas A. Sebeok Fellow in 2011.

<sup>&</sup>lt;sup>29</sup> David Seed has been a professor of English at Liverpool University since 1977. Seed's ten books explore literature from Cold War and postmodern eras, science fiction, as well as a monograph on James Joyce.

Seed, *The Open Work's* purpose is for a text to admit that it is not complete and requires participation from audiences who offer tentative and temporal conclusions (73).

Seed summarizes the significance of the work tied to information theory, the influence of Eco's graduate mentor Pareyson, the notion of intertextual exchange, and the exemplar of Joyce's production of open works. While Seed considers Eco's examination of information theory, "a lengthy 'detour," he identifies its significance by announcing the reality of disorder among "grammatical and syntactic rules" (74–75). Seed frames Eco's discussion of Kitsch as "more neutral" than his contemporary critics due to its "constant dialectic" with avant-garde practices (75–76). Eco's primary concern, however, was the consumer-oriented engagement with "recycled" aesthetics that imitates and usurps not only artistic techniques but also predetermined experiences (76).

Seed comments on the lasting influence of Pareyson, Eco's graduate mentor at the University of Turin, tied to aesthetics and cultural theory. Specifically, Pareyson grounded a movement away from the prevailing understanding of aesthetics governed by Croce's idealism (76). While Eco does not follow Pareyson's aesthetics with complete assimilation, his influence shapes Eco's understanding of the open work as an "intertext" and his positioning the reader as "co-creator" (77). This influence associates openness with multiplicity and difference that requires the interpretive performances of texts.

Seed announces that a work's openness contributes to "cultural pluralism and dialogue" by destroying and "demystif[ying]" conventional relationships by situating texts in historical and cultural contexts that disrupt the "narcosis" of pairing prevailing codes and signs (79). For Eco, the exemplar of this openness is Joyce, who exists in the order-oriented focus of medieval aesthetics and the disorder of openness in the modern avant-garde. Eco understood *Ulysses* as a

Thomistic *summa*, modeling an "encyclopedic" world that implements order by arranging data amidst infinite possibilities for rearrangement (80). The reader of *Ulysses* uncovers meaning in the rhetorical and interpretive practices of "criss-cross[ing]" between and among codes (80–81). The climax of Joyce's openness, however, appears with *Finnegans Wake*, which attempts to contain the full complexity of the encyclopedic world—so open that readers can enter at any point because the text favors no one interpretive path (81). He frames *Finnegans Wake* as a "poetics of itself," exemplifying the tensions between order and disorder (81).

Furthermore, *The Open Work* is the cornerstone of two intellectual biographies by Peter Bondanella<sup>30</sup> and Michael Caesar.<sup>31</sup> Both announce the early theoretical importance of Eco's work and contribute important interpretive insight on the early evolution of Eco's aesthetic theory and its development into semiotics. Bondanella offers the first comprehensive monograph-length investigation of Eco's work in English. He portrays *The Open Work* as exemplifying Eco's "postmodern sensibility" in culture, literature, and art (xiii). Bondanella comments on the development of Eco's project, following his general interest in culture that evolved from aesthetics to semiotics and eventually to a performative practice in literary endeavors (xiv–xv).

Bondanella describes the "constant evolution" of Eco's work throughout these transitions (13). In the case of *The Open Work*, foundation emerged from Eco's early participation in Milan's vibrant cultural scene (19). From his involvement with the state-run broadcasting channel to his association with the Bompiani publishing house, Eco worked alongside creative artists who exposed Eco to intellectual discussions about cultural and aesthetic themes and

<sup>&</sup>lt;sup>30</sup> Peter Bondanella (1943–2017) is an emeritus professor at Indiana University in Italian, Comparative Literature, and Film Studies. His work offered the first comprehensive commentary on Eco in English.

<sup>&</sup>lt;sup>31</sup> Michael Caesar is an emeritus professor of Italian Studies from the University of Birmingham. His work examined Italian literature from Dante to Eco with specific emphasis on the 18<sup>th</sup> and 19<sup>th</sup> centuries.

granted him a platform to join the conversation. Through this association, Eco also entered academics with the publication of *The Open Work*. In fact, it was the publisher who suggested revising the book's title from *Form and Indeterminacy in Contemporary Poetics* to simply *The Open Work* (23). The longstanding association between Eco and this publishing house granted him editorial influence.

Bondanella explains that while *The Open Work* explicitly countered Crocean aesthetics and addressed the modern avant-garde, it simultaneously represented the medieval world; *The Open Work* exists at the same intersection as Joyce's project (23). The extended connections to Joyce and the medieval mindset, however, move from the original edition of *The Open Work* to a separate monograph. Following the 1965 translation to French, the 1967 Italian edition of *Opera Aperta* incorporated connections to structuralism and by the 1976 edition included semiotic components. This changes responded to "hostile" reviews from Eugenio Montale and Claude Lévi-Strauss (24–26). By the 1989 English translation, semiotics was well integrated into *The Open Work*. These connections appear in Eco's discussion related to information theory, Pareyson, and popular culture.

Caesar continues these discussions about *The Open Work* as the propelling factor in securing Eco's intellectual reputation within Italy and across Europe (1). Caesar positions *The Open Work* as responsive to Pareyson and his theory of formativity that opposed Crocean aesthetics. Pareyson was a Catholic philosopher who served as Eco's mentor at the University of Turin. Within *The Open Work*, Pareyson's influence prevails with Eco extending a "secularized" portrayal of aesthetic interpretation (7). The notion of interpretation joins Pareyson and Eco. For Pareyson, the work lives only because audiences interpret it, and for Eco, this interpretation allows audiences to participate in forming temporal conclusions. The tension between text and

reader in Eco's work aligns with Paresyon's attentiveness to form and interpretation (9). For Pareyson and Eco, the work relies on the interpreter to explore ambiguity with historically and culturally determined insights (14).

Caesar recounts the details of the publication of *The Open Work*, situated within its three Italian editions (in 1962, 1967, and 1976) and its translations into French (in 1965) and English (in 1989). The content of each rendition and translation varied. Caesar explains that in 1962, *The* Open Work "imposes itself" upon an audience with a special focus on modern art (16). Eco's investigation of aesthetics emerged as a byproduct of his background working in Milan with the state-run television broadcasting station, the RAI-TV, from 1954 until 1959 (16). This experience placed Eco in close conversation with composers, journalists, poets, and writers and secured his longtime association with the publisher, Bompiani, which provided a platform for Eco to enter these conversations (16–17).

Caesar summarizes three understandings of openness that undergird *The Open Work*: (a) a "work in movement" that frames interpretation as a performative practice of completing openings within a text; (b) a spectrum and conglomeration of signs, texts, and codes that require interpreters to "uncover and select" paths toward meaning; and (c) a characteristic of every work that invites a horizon of possible interpretations (18). Caesar summarizes the three tasks of the interpreter—to perform, complete, and interpret open works (18–19). These interpretive tasks rely upon contexts of culture and history that guide navigation among varying degrees of openness and horizons of possible relations that order and reorder cultural codes within an encyclopedic world (19).

Furthermore, Caesar identifies two implications of the poetics of openness in Eco's work. First, no matter how open a work may be, it nonetheless exists as completed, "a made object, a

thing done" (20); thus, the work places considerable and significant limits upon the interpreter. Second, openness does not guarantee a positive "value-judgment" (20). Caesar explains that with each revised rendition of *The Open Work* Eco develops his notion of openness moving toward structuralism, information theory, pragmatism, linguistics, and eventually to his semiotic theory (23). With this shift, *The Open Work* adopted the vocabulary of structuralism and introduced what became the terminology of interpretive semiotics. For instance, with the French translation, Jakobson's notion of ambiguity became a keyword that remained in subsequent editions (25); the focus on ambiguity developed in response to Emilio Garroni. With the critical reviews of each edition, Eco adapted and clarified his thought.

Ultimately, Caesar portrays *The Open Work* as, in fact, an open work that invites opportunities for change and growth (26). He contends that as a text rich with openness devoid of "definitive solutions," *The Open Work* has had "enormous impact" (26). According to Caesar, the influence of *The Open Work* cannot be understated; it sold over ten thousand copies and reached far beyond artistic and academic circles (27). Simultaneously, however, its success also owes homage to the acclaim of the subjects who composed Eco's subject matter and Eco's ability to make these difficult texts accessible and interesting to a wide audience (27).

Together, these commentaries situate *The Open Work* in a historical and cultural context. They describe an era of Crocean aesthetics that requires attentiveness to interpretation that embraces openness. The aesthetic position follows the theory of formativity advocated by his mentor Pareyson. The original project foreshadowed the semiotics found in the 1989 English translation that embraces openness to the interpretive power of popular culture. The power of openness occurs in the performative engagement of texts and readers with an embrace for

difference and multiplicity. We cannot reify Eco's understanding of openness into a permanent theory of cultural or aesthetic universalism.

## 3.2 Reviewing The Open Work

Eco's revisionary tendency characterizes the historical development of *The Open Work*, with full recognition that the English translation is not in direct correspondence to the first edition of the volume published in Italy in 1962. The volume underwent three Italian renditions in 1962, 1967, and 1976 as well as a pivotal translation to French in 1965, which incorporated structural influences. The 1989 English translation contains essays from the multiple editions of *Opera Aperta* with other segments excluded. For instance, the English translation did not include the final chapter of the original edition dealing with Joyce's poetics. Harvard University Press, however, published this work as *The Aesthetics of Chaosmos: The Middle Ages of James Joyce* simultaneous to and separately from *The Open Work*. This section focuses on five themes central to the 1989 English translation: (a) Poetics and Interpretation, (b) Information Theory, Semiotics, and Aesthetics, (c) Croce and Pareyson, (d) Kitsch, Popular Culture, and Aesthetics, and (e) Gruppo 63 and the Open Work. These themes emerge from the commentaries that situated the previous section of this chapter. These theme areas review the central coordinates of *The Open Work* in its 1989 English translation.

### 3.2.1 Poetics and Interpretation

The Open Work begins with a discussion of poetics and interpretation. Eco explains how musical scores grant musicians the freedom to interpret a piece in its performance. Eco emphasizes the performative nature of interpretation by encountering and engaging an unfinished and open work. According to Eco, the musical score exemplifies an interpreter's quest in navigating the "structural coordinates" of a text that simultaneously molds to multiple

interpretations. Eco explains that while the piece itself exists as "complete," the work's openness invites mutability in interpretation (4). Thus, according to Eco, art is synchronously an interpretation and a performance, rich with abundant possibilities for meaning (4). The open work often operates as an "unfinished'...construction kit" handed from artist to interpreter/performer (3–4). This first form of openness offers interpreters the ability to conclude texts in the performative practice of interpretation.

In another understanding of openness, Eco refers to the Middle Ages as an era that embraced interpreters who must work to understand, navigating among multiple interpretations (5). Eco carefully distinguishes this understanding of openness from the "indefiniteness" of complete relativism or the assumption that the interpreter has the power to uncover any appropriate meaning. Instead, this understanding of openness corresponds to a horizon of "rigidly preestablished and ordained" interpretations that locate the reader in a spectrum of engagement governed by the interaction between and among texts and interpreters (6). Eco explores various instances of this openness within art produced throughout history.

Eco specifically focuses on Joyce's *Finnegans Wake* as an open text reflective of this medieval attempt. In Joyce's work, he uncovers an "Einsteinian universe" contouring back into a circular form (10). The novel opens and concludes with the same word, which for Eco adheres to the finite form of the novel and simultaneously constructs an infinite and unlimited text that bends back upon itself. Joyce attempts to portray "the totality of space and time"—a hypertextual cosmos with all possible spaces and times present at once (10). Representative of art's political significance, *Finnegans Wake* reflects scientific and cultural views of the world in order to deny prevailing conventions and emphasize alternative possibilities. Eco textures his position that every performance is an interpretation and, likewise, every interpretation is a performance; while

interpretations perform texts, they do not "exhaust" all of the possibilities of meaning (15). The interpretation "actuali[zes]" the text but does so in a complementary manner, existing alongside a range of possible interpretations/performances (15). Herein, lies the text's openness—in the ambiguity of discerning how to interpret and perform.

Eco summarizes the open work related to "possibilities" of meaning situated within a "field of relations" (19). This position places the open work somewhere between the extremes of predetermined interpretations and complete relativism. Texts do not correspond with meaning in a one-to-one relation but, nonetheless, direct interpretation—Finnegans Wake cannot be read as a guide for raking leaves or a manual for managing a yard sale. As stated, Eco places interpretation outside of the author, of the text, and of the reader but in the interactions between text and reader. Despite the author's affiliation with the work produced, the author has limited knowledge and control of how audiences will respond and interpret. With the text, the author enters into an "interpretive dialogue" that directs an interpretive path that ultimately results in unforeseen outcomes (19). Within the text, the author proposes numerous possibilities of meaning. With the interpreter's participation, however, meaning often moves contra to what was intentionally incorporated into the text (19). Eco emphasizes that the open work contains an element of movement that resists stagnant meaning by integrating possibilities of interpretation.

This horizon of integrated possibilities between the interpreter and the text distinguishes the open work from the dictionary. The dictionary compiles a list containing possibilities to create classic literature, restaurant menus, tourist information, or course syllabi. The dictionary operates otherwise than an open work in the "reconstitution" and "manipulat[ion]" of its content (20). Open works maintain power in governing interpretation by introducing constraints; they offer openness, "dynamism" and a horizon of possible connections that must continue to operate

within the work produced (20). Unlike the dictionary, open works offer the following three features: openness to completion, openness to a multiplicity of appropriate and valid interpretations, and openness to renewed vitality of meaning inherent in the interpretive engagements between text and interpreter (21). From these characteristics, Eco indicates the possibility that texts offer varying degrees of openness, with none ever fully closed.

Eco's commitment to openness and multiplicity positioned him in stark contrast with Croce, whose idealistic aesthetics dominated Italy's cultural scene in the postwar era. Eco critiques aesthetic perspectives that assume art holds idealistic and expressionistic meaning that transfers from the mind of artist to the mind of interpreter. Specifically, Eco addresses Croce's theory of *totality*, which "imprints" universal meaning onto art by imbuing it with "emotive content" (25). Eco aligns this position with the foundations of John Dewey's naturalism and positivism in Art as Experience and its transactional process of knowledge and artistic meaning (26–27). Eco investigates this transactional process between the audience ("perceiving subject") and work ("aesthetic stimulus"), working from Roman Jakobson's structural position that language is the foundation of communication and culture (28). Eco's analysis affirms his position that aesthetic meaning manifests in the interactions and connections that "bind" works and audiences (39). Artists can produce, organize, and endow works with varieties of openness and audiences can acknowledge or deny such possibilities. Eco addresses how openness emerges both in pieces intended to be "univocal" and in the surplus of information characterized by works created to be "plurivocal" (39, 42). The excess of information in pluralivocal aesthetics is characteristic of the modern avant-garde and directs Eco toward possible connections between aesthetic theory and information theory.

3.2.2 Information Theory, Semiotics, and Aesthetics

While many doubt the relevance of this venture, Eco contends that since information theory and modern aesthetic practices emerge from a shared historical moment and cultural context, information theory is a possible resource discussing culture and art (44). Information theory measures messages using logarithms to calculate the mathematical probability that interpreters will know the content or meaning of a message after encountering it compared to the probability of knowledge before encountering it. Eco describes information as "additive," building upon existing knowledge with new and original insights (45). Eco explains that the more information present in a message, the more it appears plurivocal and ambiguous. Information theorists thus rely upon the notion of entropy tied to the thermodynamic movement of heat. Entropy calculates order and disorder within messages that correlate with information theory's equations for prediction and control.

Eco associates this notion of control closely with the information theorist, Norbert Wiener,<sup>32</sup> whose work introduced cybernetics. Wiener utilized information theory to understand control of communication in human and machine contexts. Wiener juxtaposes information (calculating order) with entropy (calculating disorder) (50). Disorder emerges in the entropy of noise into communication channels that interrupt and obscure meaning. Various forms of noise threaten every channel of communication necessitating redundancy of reiterations as a strategy for strengthening the probabilities of message "survival" (51). The reiterations, however, must adhere to "a system of pre-established probabilities" that construct a particular language as a code for the transfer of communication (51). A central component to cybernetics pioneered by

<sup>&</sup>lt;sup>32</sup> Norbert Wiener (1894–1964) joined his background in mathematics and philosophy to investigate cybernetics. He taught at the Massachusetts Institute of Technology and investigated the mathematic nature of machine (and human) communication. For more insight on Wiener's cybernetics and its implications for communication and data, see Orit Halpern's *Beautiful Data*.

Wiener is the theme of probability as a means for prediction and control. However, Eco explains that Wiener mistakenly assumed that information (order) was equivalent to meaning (53).

Eco distinguishes information and meaning; information's defining characteristic is additive insight, not order, as Wiener asserted. As an example, Eco explains that the conventional messages associated with greeting cards are "ordered," "predictable," and "quite clear" but offer limited information or knowledge. The amount of information associated with such a practice may largely depend upon the source of the message. An unlikely sender can introduce "disorder," "improbability," and "originality" that instills the message with information (52). Eco emphasizes the possibility for noise to enrich a message through the entropy of information and disorder, or "non-order" (55). Eco argues that this divergence of order and information is typical of art, particularly in the avant-garde plurivocal practices of openness. Eco discusses how meaning emerges from pairing opposing conventional structures of order "to violate the laws of probability" characteristic of the given codes of languages by reappropriating the meaning of information (55). Art acts as a source for securing new connections of meaning in the excess of information via disorder, as a means for re-ordering the existing relations of information.

A particularly important action of information theory occurs in transmission, which relies upon codes (constructed via signification) that order possibilities and probabilities for interpretation (56). To understand the notion of information transmission, Eco turns to Claude Shannon and Warren Weaver's sender-receiver mathematical model of communication. Their understanding of communication indicates that the more information present in a message, the more "difficult" its communication and, likewise, the less information, the less ambiguous (57). Their work pairs information and uncertainty/ambiguity, which affirms the relevance of

information theory for Eco's discussion of aesthetics and the open work. However, Eco must release the notion of information from mathematical rules directly tied to the transmission of quantities between senders and receivers in order to explicate the connections between and among openness, information, and communication. Information theory transforms into communication theory with exchanges between embodied human subjects. When the source of a message is a human subject, the message resembles "an echo chamber" wrought with connotations and plurivocal possibilities that offer opportunities to activate multiple codes (66). Communication theory resists the temptation to minimize messages to simple relations between signifiers and signifieds; instead, interpreters must discern the disorder of information to establish new meanings in the interpretation of a work.

In the context of aesthetics, Eco announces the artist's deliberate attempt to construct texts with ambiguity and the hope to defy conventional structures of meaning. In "dis-ordering" codes, aesthetic messages emerge (67). Receivers, who decipher and decode such messages, cannot be mistaken as the conclusion and end result of communication. As messages participate in unlimited semiosis, one message becomes a source for further information—obscuring the foundations of order that previously contextualized its meaning (67). Interpreted messages develop into information sources that resist quantification and, thus, enter the realm of communication theory. This transition from information theory to communication theory guides Eco into semiotics. As Eco explains, communication follows the "categorical scheme" of information theory without its "algorithmic system" (67). With the reception of a message by a human receiver, works participate in communication and signification.

Signification grounds culture with codes deriving from the "acquired forms" that pattern lived experiences (78). These forms construct cultural codes without limiting its evolutionary

potential. Open messages advance interpretive possibilities by violating systems and permitting interpreters to reconsider "historical possibilit[ies]" (83). The open work invites the "dialectic opposition" of divergent interpretations that produce ambiguity in the increase of more information (83). Eco calls for further participation in the interpretation of open works and in the production of more information to counter "social illnesses such as conformism, unidirectionism, gregariousness, and mass thinking" (83). Open works require an active participation between text and reader in the interpretive engagement that directs the relations that govern social environments and cultural knowledge. Eco addresses informal art in visual contexts as an "epistemological metaphor" open to structural and theoretical possibilities (87). As such, we receive the opportunity to see the world in the discontinuity that matches our lived experiences (90). Open works invite their audiences to deny univocality and empower "freedom" of interpretation (91). These possibilities simultaneously result in limits governed by the text.

The meaning of the text does not lie in the artist's intentions or in the reader's demands. Instead, the work "starts blabbing away," establishing a horizon of interpretive possibilities rich in ambiguity from an excess of information navigated in exchanges between and among texts and audiences (93). Clarity of meaning, conversely, results from the existing order, conventions, and structure. Novelty of meaning relies upon the plurality of an open work. Eco exemplifies the surplus of information with white noise as "the undifferentiated sum of all frequencies," maximizing the amount information and minimizing the clarity of meaning (96). Like white noise, the open work contains excess information that permits interpreters to connect nodes of information in new and unforeseen possibilities (98). However, Eco notes that not all forms of communication invite the same susceptibility to openness—such as live television, which exists as a less open form of communication, but simultaneously does not lose all opportunities to

invite audiences to participate with openness of re-envisioning the meaning of what appears on its screen (121–122).

Eco discusses how this interpretive freedom empowers form as a social commitment. Predating the mediated world of the Internet, computers, and smart phones, Eco describes technological devices as "so pervasive, so sophisticated, so autonomous" that they caution and, even sometimes, scare us (136). He follows the Marxian critique of the alienation of labor as an analogy for technology's alienating force—where the car alienates the driver not only to its machine but also to the social structures that situate the car in a modern market of competition and ambition (136). Eco refers to alienation as "a chronic condition of human existence" that has become the default of economic and social participation (136), and as such, human interpreters must search for alternative modes of engagement emergent in cultural and artistic efforts.

Eco frames form as art's primary mode of speaking (142). Art's form responds to historical circumstances with the ability to reorder meaningful relations that invite and encourage interpreter participation through its openness (143). Openness in art absorbs and replicates the ambiguity of the lived world, in all its plurality and multiplicity. The openness of the work invites us to re-integrate in a world that alienates us through its tools and technologies. Eco explains that even our language alienates us—we live in language contexts that emerged long before our participation, but language separates and detaches itself from the context of its original expression (154). This detachment coupled with language's ability to represent historical circumstances across time is dialectical. To order the "disorder, amorphousness, and dissociation" of historical circumstances, we construct artistic forms (157). Through form, art organizes aspects of human existence and the natural world to produce meaning.

### 3.3.3 Croce and Pareyson

Eco's emphasis on form announces the influence of Pareyson, his graduate mentor. Eco follows Pareyson's aesthetics of formativity that directly counters Croce's position of universal and authentic aesthetic meaning. Unlike Croce, Pareyson focuses on the discussion of formativity, matter, and interpretation. Pareyson understood the production and shaping of form as the central task of human existence, encompassing artistic, intellectual, theoretical, political, and civic efforts. Pareyson insists that artistic invention of form exhibits a "unitotality" that involves morality, emotion, and intelligence (158–159). This association of morality, emotion, and intelligence escapes the juxtapositions of form and content or form and matter. From this perspective, the artist is "the content" of artistic form but not the "object" or the "subject" of the art (159–160). Instead, as content, the artist engaged in formativity leaves a "personalized trace" as a remnant found in a piece's "style, as a way of forming" (160). The matter of the artwork acts as "an obstacle" that absorbs into the form, uniting the colliding forces of artistic production (instruments, techniques, languages, laws, etc.) (161). From Pareyson's aesthetic understanding, art relies upon the physical existence of its matter, not interiority as privileged by Croce.

According to Pareyson, the artist participates in a "dialogic activity" with obstacles of matter (160). This dialogic engagement of matter's restraints produces material form as an exemplar of the artist's "freedom" (160). Through the exteriority of matter, form instills artistic laws that respond to the cultural and physical world in which the artist produces a "forming form" into a "formed form" (163–164). The forming form represents the intentions and aspirations of the artist, and the formed form exists as the form as encountered. Form then appears in the production of art and in its interpretation. For Pareyson, form exists at the intersection between the conclusion of an artistic production and the commencement of interpretation. Eco announces interpretation as a retroactive act where the interpreter "retraces"

artistic form by considering the artist's standpoint and searching for "the inner coherence" of a work (163). Just as the artist extends beyond the *forming form* (or "ideal form") in the production of a *formed form* (or the art as it appears), the interpreter resists isolation in the finished form venturing into perceptions of the forming form (163–164). Eco aligns Pareyson's perspective on form, style, and interpretation with his own association of performance and interpretation (164).

Eco understood style as the performative component of interpretation and production (164). Style is equivalent to the "recognizable trace" of an artist within a work (165). Eco explains that art "reveal[s]" the artist as its content but does not "narrate" the artist as a person (165). Form materializes and actualizes a "concrete memory" of its creator and the formative practices shaping its existence through the metaphor of style (165). Style emerges from the standpoint of an artist situated within the existential and cultural contexts of a community. The form produced through style becomes a form of communication between human interpreters. As the artist brings art into being through form, the artwork opens itself to interpretations from various standpoints that introduce an ongoing and infinite regression of unlimited semiosis. This relationship between artist and viewer grounds Eco's understanding of the interaction between text and interpreter. This relationship offers infinite interpretations that can gain an element of "permanence" for the work (165) across historical and cultural contexts. Eco notes that modern art privileges "historical justifications" that position poetics as "art's main subject matter, its theme, its raison d'être" (168–169). Thus, determinations of beauty and ugliness or good and bad art are no longer relevant; one determines success by art's ability to "resolves" the historical, cultural, and political "problem[s] of poetics" (170). From this point, Eco offers two hypotheses—regarding the death of art and its resurrection.

Eco's first hypothesis regarding the death of art announces an environment where art loses its power of significance once the interpreter comes to know a work's aims. Often interpreters become familiar with the work through critical responses and secondary accounts without ever encountering the work directly. In such cases, the interpreter "fears" that all the text can offer has already been announced and reading the work firsthand might only result in "disappoint[ment]" (170). Interpreters fear that summaries and critiques can illuminate more than the work itself. In such instances, the artwork dies, but Eco contends that this death can encourage us to uncover novel categories for poetics, aesthetics, and critical interpretation (174).

In Eco's second hypothesis, he addresses the resurrection of art in "the recovery of aesthetic value" (174). Eco explains how art combines our "organic knowledge of things" organized and united in form (175). In these cases, critical responses to a work may assist interpreters as they wade into a text but cannot account for its entirety; the work exists as more than poetics (177). Under the auspices of this aesthetic engagement, judgment of good art corresponds with its ability to offer "something richer, more varied, more elusive and allusive" (178); for example, Eco examines Joyce *Finnegans Wake* and *Ulysses* as the resurgence of aesthetic value with each new encounter offering additional interpretive insight. The seemingly inexhaustible interpretive abilities strengthen critical consideration inviting significant cultural discourse (178). For Eco, the open work infuses art with meaning beyond poetics by incorporating multiple levels of potential textured interpretation.

These two hypotheses concerning the death and resurrection of art account for judgment in an era where poetics determines aesthetic value and delineate bad art and "bad taste" (180). While Eco considers bad taste as an elusive contextually and culturally dependent concept, two central characteristics emerge. The first occurs in instances where proportions resist their

corresponding contexts (180); the second deals directly with aesthetics in the fraudulent imposition of predetermined feelings, disguising nonart as art (181). The latter definition encapsulates the German notion of *Kitsch*—a novel concept widely untranslatable (181). Eco textures the assumption that all popular art is Kitsch with a discussion of aesthetics.

### 3.2.4 Kitsch, Popular Culture, and Aesthetics

Eco explores Kitsch's identifiable characteristics and reconsiders its cultural implications. An initial quality introduced by German literary figure Walther Killy (1917–1995) pertains to Kitsch's "fungibility," referring to its ability to spread and multiply in a mold-like fashion. Acting akin to a fungus, Kitsch obsesses with the "accumulation and repetition" of stimuli with the goal of imposing an effect (such as sentimentality, nostalgia, romanticism, etc.) upon the interpreter (182). The fungibility of Kitsch does not invite the interpreter as a participant in the search for meaning but instead forces with considerable effort in the repetition of stimulidirected techniques invoking a specific predetermined meaning (183). Eco explains that Kitsch is "the ideal food for a lazy audience" that yearns to encounter interpretive meaning without expending energy on interpretation (183). By masking imitation for authenticity and originality, Kitsch is "a petty bourgeois phenomenon" characteristic of the consumer society of mass production and culture (183).

Kitsch allows interpreters to engage a work with a consumer mentality, demanding the instant gratification of aesthetic meaning without the participatory labor of interpretation. Kitsch "sells," and interpreters readily and eagerly consume its pre-packaged determinations of meaning (185). This consumer emphasis quickly situates Kitsch within the realm of mass culture and juxtaposed to the avant-garde. Unlike Kitsch's imitation of effects, avant-garde art focuses on the "processes of art" (186). Eco aligns Kitsch with the popular culture of the 19<sup>th</sup> century that

witnessed the onset of popular novels, photography, and journalism. Eco describes an interdependent relation between Kitsch and the avant-garde. While Kitsch thrives in imitating the effects produced by avant-garde artists, the avant-garde responds by reordering the prepackaged and easily consumed effects of Kitsch (187).

A separate case occurs when mass-produced goods imitate the artistic processes of the avant-garde without assuming the mask of art. Eco refers to knickknacks, detective novels, and comic book heroes as exemplars—these mass-produced items do not expect recognition as art. Similarly, when advertisements attempting to sell mass-produced products make use of avant-garde art and culture, they aim for inspiring consumption of goods, not the consumption of aesthetic experiences (188–189). Eco considers these instances of "masscult" (189). Masscult is capable of unintentionally inspiring audiences to appreciate the processes of avant-garde present within a work's imitation without ever providing even a nod of acknowledgment. Masscult contends with "midcult," which considers the middle level of cultural consumption that parades consumption of Kitsch products as aesthetic experiences (189).

Eco relies upon the American social critic, Dwight MacDonald (1906–1982), who critiques midcult and aligns it with Kitsch. Midcult occurs in the pretentious act that allows consumers to absorb "a marketable illusion" of art, accepting the false presentation of originality and assuming the false façade of culture and aesthetic experience (192). Eco summarizes five characteristics that assist one to identify midcult—(1) simplifying the avant-garde to ready-made and ready-consumed messages understood by all without the labor of interpretation, (2) making use of avant-garde and artistic concepts already "worn out" by high culture, (3) aimed to produce particular effects, (4) masked as art, and (5) viewed as satisfying by consumers of cultural experiences (192). Eco's textures MacDonald's critique; while MacDonald considered the

defining characteristic of high art or the avant-garde as its "nondiffusability," Eco cautioned that this position aligns critical thought and interpretation with the "snobbery" of aristocracies that condemn all popular interests (193). From this perspective, the aristocrat, who is no more than one who "does what others don't yet do," cannot be the determination of beauty, meaning, or ugliness (194). Instead, Eco advances a public environment that cautions against Kitsch without totality denying the value of popular culture.

Open works become a source for response, countering efforts for "univocal meaning" with ambiguity that requires interpreter participation. Open works position interpreters "to decode a message whose code is unknown," to enter a realm outside existing cultural relations (195). According to Eco, ambiguity of meaning is the "fundamental feature" of the open work (196). The open work's ambiguity requires interpreters to work as cultural detectives engaged in abduction, navigating codes and signs to uncover meaning. Within Eco's semiotic theory, the interpretive engagement of texts advances culture by considering anew the possible connections between and among codes and signs. However, interpretations that at one point reordered and violated prevailing cultural codes begin to construct the conventional patterns of relations. Eco aligns this sequence with the duplication and reallocation of art, such as *The Mona Lisa* depicted on pillows, coffee mugs, T-shirts, mouse pads, and wine stoppers (197). This description is quite distinct from poetic messages that require interpreters to approach texts with the task of interpretive engagement rather than consumption of predetermined aesthetic experiences.

For Eco, art exists as "a system of relationships" composed of "stylemes" that hold remnants of an artist/author/creator situated within a historical and cultural context (200). Those stylemes become a source for imitation and duplication. Eco explains the structure of Kitsch as borrowed or stolen stylemes misappropriated into historical moments under the presupposition of

originality (201). The duplicated stylemes resist assimilation into their newly imposed contexts. Kitsch, then, relies upon the consumption of this "falsehood" (203). In this regard, Kitsch is unlike other imitation efforts that either never acknowledge or assume an aesthetic purpose such as masscult or instances when the avant-garde borrows Kitsch themes in forming art, which Eco labels as "avant-garde's revenge" (215). Avant-garde artists reorder cultural codes when resituating objects and images from an environment of mass consumption into artworks that find their way into museum and gallery exhibits. By reordering stylemes and conventional cultural codes, they require audiences to reinterpret their meaning unlike the structural falsehood of Kitsch that pretends to contain prepackaged aesthetic experiences.

Eco problematizes the structural assumptions of Kitsch without disregarding the value of popular art. Turning to Lévi-Strauss, Eco identifies serial thought as an alternative to the structuralist project. For Lévi-Strauss, structuralist and serial thought are not only two modes for methodological engagement but also two modes of engaging the lifeworld (217). For Eco, serial thought is the poetics of the open work inviting "polyvalent" interpretation (218). Unlike structuralist thought's reliance on empirical and objective laws, serial thought represents openness (218–219). Eco expands on this distinction between structural and serial thought.

Structuralism aligns codes and messages at the intersection of "selection" and "combination" with the assumption that a more basic code underlies each structure (220). Within serial thought, however, messages question codes and polyvalence questions the "axes of selection and combination" by reordering codes to produce different modes of communication (220–221). Serial thought seeks to uncover new structured realities rather than discovering underlying "permanent" structures (227). Eco frames Lévi-Strauss as a "mechanist" whose structuralism relies upon permanent underlying structures, whereas serial thought works from a

"dialectical materialist" position that believes that alongside contextual and historical situations, structures change (229). Eco explains, "The original locus, or place of origin, is where Being, masked, reveals Itself in structural events while avoiding all structure" (235). He cautions that once serial thought's polyvalence becomes "object logic" it falls within the structuralist frame of permanence. Structuralist and serial arguments rely upon one another with "continuous tension and permanent methodological doubt" that ironically prompts meaning (232).

The open work, which represents the polyvalence of serial thought, exists beyond the strict boundaries of structuralism and serial thought. Throughout the volume, Eco repeatedly aligns the open work with interpretive participation between text and audience. He situates this discussion primarily within the context of cultural theory, which attracted its initial acclaim. In the final chapter of the English translation, Eco comments on the work's implications for cultural theory, framed as the central text for Gruppo 63, a group of Italian avant-garde artists who celebrated and advocated for open aesthetics.

### 3.2.5 Gruppo 63 and the Open Work

Eco's involvement in Gruppo 63 emerged following the publication of *Opera Aperta*. The group originated in Palermo in 1963 by Italian neo-avant-garde artists, who appreciated and embraced the open aesthetics advocated by Eco. Well situated within systems of power, the members of Gruppo 63 sought to define the meaning of such power (238). The group modeled itself after the German association, *Gruppe 47*, which affiliated artists and literary figures in 1947, who sought to reinvigorate German literature and cultural life after World War II. Eco commemorates Gruppo 63 and its effort "to smash the very *media* of communication" (240). Eco recounts this association of artists and public intellectuals from its establishment to its "death" in

1969 (236). Eco not only commemorates the group, but also offers a glimpse into the work's influence and implications.

The group addressed the intersections of culture and politics through public debates about language. The group garnered wide-spread criticism—from the "Establishment" for utilizing the very strategies it attacked and from communist groups for adopting "the extreme tactic of the formalist right" (237). Their position contended that by abolishing the conventional modes of communication and thereby their corresponding "cultural forms," communication would reinvigorate culture (239). Eco recounts how Gruppo 63 transitioned from an innovative group who denied cultural conventions into an historical version of the avant-garde, whose work became the ground for conventional cultural codes that powerful public institutions "gobbl[ed] up" (247). Gruppo 63 produced an understanding of culture that faded from novelty to convention.

The transition became apparent after a student outbreak in May 1968 at Turin University. 33 Gruppo 63 felt responsible to provide a platform for the students to express their concerns and understood that those concerns evolved from their own avant-garde efforts (248). Gruppo 63's publication *Quindici* served as initial publishing platform for students to utilize prior to establishing their own periodicals; their involvement quadrupled the journal's circulation (248). As the students' platform, the focus of *Quindici* shifted from literature to politics (248). Eco explains describes this transition as a moment when he and his peers recognized that they had grown from the "so-called 'young' generation" to "the generation in between" (248). With this recognition, Gruppo 63 offered a self-sacrificial response—to quit, to embrace its death. Eco explains that the group resisted reification that would turn their avant-garde movement into

<sup>&</sup>lt;sup>33</sup> Revolts involving university students emerged across Italy in 1967 and 1968. For more information on the various aspects of the movement, see Stuart J. Hilwig's *Italy and 1968: Youthful Unrest and Democratic Culture*.

"ossified relic" (249) and describes their decision to quite as their "last and bravest act" (236). For Eco, Gruppo 63 demonstrates the implications of the open work for cultural theory by announcing its limits and resisting the temptation to turn openness into a universal rule that destroys its power and significance.

Eco's commemorative conclusion exemplifies the openness of openness and insists that one cannot totalize openness into a universal aesthetic theory. The theme of openness not only attracted intellectual acclaim with support from avant-garde artists in Gruppo 63 but also characterizes *The Open Work* by presenting an understanding of poetics that relies upon interpretation. Interpretation empowers texts and interpreters in an interactive exchange that reveals meaning. This perspective exists in direct opposition to Croce's idealism, which privileged internal aesthetic experiences. Instead, Eco follows Pareyson's formativity, which attends to the importance of interpretation, which allows space for Eco's contribution of openness. Prior to this commemorative conclusion, the second half of the first edition of *The Open Work* examined Joyce's framing of a disordered and encyclopedic world of interpretive possibilities, what Eco terms a chaosmos. This work on Joyce, which originally concluded the *Open Work* and, likewise, lays the groundwork for connections to the list.

## 3.3 Joyce and Chaosmos

This section turns to the original concluding chapter of *Opera Aperta*. This chapter, published separately as *The Aesthetics of Chaosmos*, complements *The Open Work* by combining Eco's interests in cultural studies and medieval aesthetics with his expertise on Joyce. This section works from the English translation of *The Aesthetics of Chaosmos*, first appearing in 1982 and again in 1989 alongside *The Open Work*. Due to this work, Eco secured public recognition as a leading Joyce interpreter in Italy and abroad. While Eco was writing in the early

1960s, the Italian translation of Joyce's *Ulysses* had only been around for two years and the Italian translation of *Finnegans Wake* was only in its earliest renditions. Thus, Eco offered early access to Joyce's corpus. This commentary moves beyond poetics and aesthetics to culture, philosophy, semiotics, and toward the notion of lists.

In *Aesthetics of Chaosmos*, Eco positions Joyce at the intersection of the medieval world and the modern avant-garde and considers how Joyce's work spans poetics and aesthetics. For Eco, aesthetics is what art is and poetics is a text's "structural mechanism" which directs focus back toward the text itself with "ambiguity and polysemy" as byproducts (1). Eco frames poetics as central to investigating Joyce's work (1). Working from a medieval mindset, Joyce attends to Order in the world that manifests an interrelated and continuous web of references (7). Joyce understood the world as a chaosmos where each word "embodies" and mirrors all other words. This position represents a medieval mindset lacking only a "transcendent God" (7). Likewise, this view of the world as a chaosmos characterizes the cybernetic view of the modern world from an encyclopedic perspective.

Within this context of order, chaos, cybernetics, and encyclopedias, Eco describes the effort to order the world as "a logic of the inventory" (9). In a medieval context, the list was an avenue to uncover new insights by the re-combining artifacts, texts, signs, etc. (9–10). Eco appreciates Joyce's literary use of poetic lists as an effort to reorder a modern world by recombining signs and words in a creative pathway to uncovering new modes of understanding (11). Joyce's work exists in the tension and the "conflict" of a modern world and the traditional order shaped by the medieval influences shared by Eco and Joyce (30). Joyce as an artist and avant-garde author works in conflict as he attempts to shape and order a chaotic modern world with medieval resources—giving form to what an encyclopedic, cybernetic, and hypertextual

world where all signs and all texts exist side by side (30). Among these medieval instruments, Joyce makes deliberate and regular use of the list.

In Joyce's *Ulysses*, Eco identifies a "Work-as-Cosmos" that seeks to contain all of the world in a single text—all of human relation, culture, and history (33). Joyce obliterates the traditional form of the novel that recounts events that *mean* something for the plot of a story. Eco explains that within traditional novels any event that was not necessary for the plot is "insignificant" and "stupid" (39). Joyce's work operates with a deliberately contrary form that resists the temptation to "pretend" that one can "tame history" (39). Instead, Joyce embraces everyday ordinary acts as valuable and potentially meaningful for the narrative (39). Joyce reforms the novel from a linear and chronological plot to "an assortment of little things, without order, in an incoherent flow" (39). His stream of consciousness literary style mirrors the chaosmos in which we live and act.

With *Ulysses*, Joyce frames the novel in the tension of disorder and structure. In order to express the disorder that permeates the novel, Joyce must implement some form to navigate the "confusion and destruction" (44). The structure and order of the novel emerges as each symbol, allusion, gesture, word, and image simultaneously "points to one thing" as it "indicates another" (48). Joyce's work takes the form of a list, characteristic of the medieval tradition that exhibits hypertextual references without producing a philosophy (50).

Internal and external order act as frameworks of interpretation where codes guide interpretation but simultaneously appear among the contents of the message (50). Eco frames *Ulysses* as an open message where readers endeavor into a labyrinth where all nodes, signs, references, and words connect to all others and simultaneously reflect back unto itself; at the same time, the novel is a "closed universe, a cosmos beyond which there is nothing" (54).

*Ulysses* allows the reader to participate in a world of "dissociation" where the goal to resituate the self (55). Amidst the disorder, one uncovers order by discerning an interpretive path.

Lists form within the tension of order and disorder in Joyce's *Finnegan's Wake*, which Eco identifies as an exemplar and clear representation of the open work. *Finnegan's Wake* acts as a labyrinth filled with opportunities for interpretation. Since the reader is unable to follow all paths and references in one reading, readers uncover order among innumerable paths with recognition that discerning one path does not obliterate or delegitimize alternative paths (66). For Eco, the representative portion of *Finnegan's Wake* is a list contained within the novel found in an illegible letter containing a series of definitions. Eco describes the list as an "infinity of allusions" (67) that represents "the most striking key" of the novel (77). The letter is a list offering interpretive possibilities—it represents the entirety of the book as model of the universe.

Within the infinity of the list, the reader is free to move beyond the author's intentions (67). The meaning relies upon the reader's encounter with each item included on the list. The meaning and interpretive power of the text rests within its "permanent ambiguity" and the "cybernetic" and hypertextual presence of multiple meanings simultaneously without excluding any one path to meaning (67). The list, like the novel itself, operates according to a rhetoric of alternating from one code to the next (67). As a list, the meaning of *Finnegans Wake* emerges in the poetics of itself as each sign and code fits within "the total network of meanings" (72–73). Like the medieval world that influenced Joyce's perspective, the novel offers infinite interpretations that construct countless worlds (73).

Using the language that later characterizes *The Infinity of Lists*, Eco describes *Finnegans Wake* as the embodiment of the "vertigo" of a list (77). *Finnegans Wake*, in all its infinity, responds to a world best represented by "a chaotic and dizzy encyclopedia" (83). Eco argues that

with *Finnegans Wake* Joyce introduces an alternative "human discourse" that "mirrors" the world in which we live (86). For Eco, the poetics of Joyce's work *is* the chaotic world, the labyrinth of life, the hypertextual and cybernetic existence, the infinite list in which we live.

## 3.4 List as Open Text

The Open Work represents Eco's transition from a cultural, presemiotic project to one that is inherently cultural and semiotic. Likewise, this volume simultaneously points to the importance of the list as a consistent theme throughout his work and makes possible an understanding of the list as an open work. Lists, like the various traditional art forms discussed, exist in varying forms of openness—and thus require different levels of participatory engagement from audiences and interpreters.

Eco identified three forms of openness throughout the volume—an openness that admits the need to be completed by the performative task of interpretation, an openness that welcomes multiple interpretive capabilities, and an openness that can never fully close. The list, as an art form, shares in all three categories of openness introduced by Eco: the openness that recognizes listing as a performative, and thus interpretive, practice, the openness that allows different interpreters to discern divergent glimpses of meaning, and the openness that frames lists that never truly end. Much like openness's ability to enliven art and culture, openness enriches and nourishes the interpretive significance of lists.

Lists contain five spectrums of identity explored in the first chapter of this project. The first spectrum, bounded and boundless lists, is a direct reflection of Pareyson's emphasis on form, which significantly grounded Eco's thought. The second, practical and poetic lists, reminds us of the varying degrees of openness that invite interpreters to continue the task of infinite lists. The third coordinate, rhetorical and categorical, opens lists to the performative task of offering

temporal conclusions to open texts. The fourth spectrum, dictionary and encyclopedia, corresponds to the representations of order and disorder, and the final coordinate, the span of coherence and chaos, characterizes Joyce's description of the world as chaosmos.

Eco's early work in cultural aesthetics textured the discussion of lists as a theoretical foundation of openness that offers possibilities for difference and multiplicity. *The Open Work* reveals Eco's transition to semiotic theory. The next chapter addresses the semiotic implications of the lists, operating within the cultural codes of signification and composed by signs produced within the human labor of communication. In order to announce the interpretive significance of lists, Eco's emphasis on openness couples with an attentiveness to semiotics as a "logic of culture" that extends toward a logic of lists.

### **Chapter 4:**

Toward a Logic of Lists: Exploring Eco's Semiotic Theory

Semiotics, as a possible framework to understand cultural theory, framed Eco's academic life and motivated his transition into university professorships, which lead to his appointment as the first Chair of Semiotics at the University of Bologna in 1971. By the time Eco entered higher education, he already had garnered significant public acclaim. His commentary in *The Open Work* secured him as the foremost Italian authority on the literature of James Joyce; this cultural theory of aesthetics labeled him a public intellectual, well connected to a network of artists, journalists, and publishers. A primary concern on culture guided his move to semiotics. In Eco's typical revisionary engagement with his own work, he incorporated structuralism in *The Open Work* during its French translation and later extended into the realm of semiotics. Specifically, American pragmatists Charles Sanders Peirce and Charles Morris, allowed Eco to move beyond structuralism into a semiotic framework that privileged the importance of interpretation. Eco's semiotic theory identifies the defining coordinates that underscore the cultural implications of lists.

This chapter announces the major coordinates and relevance of Eco's semiotic theory by attending to four sections. The first section, "Situating Eco's Interpretive Semiotics," turns to scholars who respond to his semiotic theory contextualized within the intellectual tradition of this field of study. The second section, "A Theory of Semiotics," reviews his 1976 book, A Theory of Semiotics; the project emerged from Eco's effort to translate his Italian writings on semiotics into English but, instead, resulted in Eco's rewriting the body of literature in his most comprehensive account on semiotic theory. The third section, "Semiotics and the Philosophy of

Language," details his 1984 work, Semiotics and the Philosophy of Language, as an extension of his semiotic project. This work builds upon the groundwork introduced in 1976 and extends the theory to the philosophy of language. The final section, "Toward a Logic of Lists" points toward a logic of lists that firmly situates lists as a cultural, semiotic phenomenon.

Eco's *A Theory of Semiotics* presents an interpretive approach to general semiotics that moves away from structuralism and semiology (as a logic of truth) toward a "logic of culture" based upon a theory of sign production (communication) and a theory of codes (signification) (3). *A Theory of Semiotics* and *Semiotics and the Philosophy of Language* outline the central themes that offer a logic of lists rooted in deep connections to culture. These metaphors announce cornerstones to Eco's interpretive semiotics and provide a foundation for this project's pursuit in understanding lists. Eco's semiotics articulates a logic of culture that points toward a logic of lists.

## **4.1 Situating Eco's Interpretive Semiotics**

This section situates Eco's semiotic project as articulated by the secondary literature of Peter Bondanella, Michael Caesar, Susan Petrilli, John Deely, and Gary Radford. Each of these scholars acknowledge Eco's semiotics within the context of his larger project, emerging from a focus on cultural theory that emphasizes openness and interpretation. These scholars situate semiotics in the midst of conversation about cultural and literary theory. Following Eco's work on cultural theory, semiotics came to represent his academic presence internationally.

Bondanella, who offers the first comprehensive book about Eco in English, situates this shift in a historical moment of significant political and cultural transition in Italy. In 1968, universities became the site for significant protest and debate regarding Italian politics and culture. Bondanella explains that these changes followed events in the United States and France,

shaping the action of Italian college students who later inspired laborers (67). In fact, 1968 also marked the publication of Eco's first book on semiotics, *La struttura assente* (translated as *The Absent Structure*). While there is no English translation of this 1968 text, segments appeared in various English collections including *The Open Work* and *The Role of the Reader*. Eco's effort to produce an English translation of *La struttura assente*, however, resulted in *A Theory of Semiotics*, rewritten directly in English.

Bondanella announces the significance of *La struttura assente*, a work compiled from lectures since his first academic appointment in 1961. This shaped scholarly conversation in Italy and abroad; for instance, it influenced the International Association for Semiotic Studies' decision to adopt the name "semiotics" following the lead of Peirce rather than the term "semiology" as appearing in the work of Saussure and Barthes (Bondanella 68). Later, the association elected Eco as Secretary General, tasked with coordinating the 1974 meeting in Milan. Additionally, Eco organized Italy's first international semiotics journal, *VS: Versus*. Eco's work advanced the popularity and reach of semiotics.

As Italy's first chair of semiotics at the University of Bologna (appointed in 1971), Eco held particular impact in directing the scholarly conversation and focus not only in Italy but also across Europe and in the US. Bondanella credits Eco's regular experience as a visiting professor as a platform for his becoming an "intellectual jet-setter or superstar" (69). Throughout academic circles, Eco represented a semiotic approach to cultural artifacts that became increasingly apparent in *A Theory of Semiotics*. Even before the publication of *The Name of the Rose*, Eco's fame was international, and he secured the ability to influence the shift from semiology and structuralism to semiotics.

Bondanella explains that by the 1960s, structuralism found intellectual acclaim as an alternative methodology to Croce's aesthetic idealism and the determinism present in Marxism (71). The turn away from structuralism, however, occurred when critics attacked the presupposition of already present "formal structures" underscoring society and culture (72). Eco's primary concern, however, rested within structuralism's "essentially non-historical or ahistorical methodology" (Bondanella 72). Similar caution appears in Eco's first book and graduate thesis, *The Aesthetics of Thomas Aquinas*. Semiotics attracted Eco because it offered possibilities for understanding culture within the context of historical circumstances that takes popular interests seriously; semiotics went beyond the pretentiousness of the nobility and aristocracy's imposed claim of control over high culture.

Semiotics could take seriously popular culture and mass media alongside the avant-garde (Bondanella 73). Eco appreciated structuralism's framing of culture, linguistics, and communication as composed of coded messages passing between and among persons and objects, but disregarded the assumption that there was one particular underlying, primary code (75). Bondanella attributes Eco's semiotics with contributing possibilities for practical implications for political and cultural environments that extended beyond the "abstract academic setting" (78). Although well versed in theory and philosophy, Eco's work permeated across disciplines, cultures, and political allegiances to a wide audience.

Eco accomplished this task by incorporating the openness of texts into messages that participated in the unlimited semiosis of interpretation. Bondanella positioned Eco's commitment to unlimited semiosis and interpretation as a clear decision to adopt Peirce's semiotics rather than the French semiology (of Saussure and Barthes) (83). Furthermore, unlimited semiosis grounded initial connections between *The Open Work* and semiotics. The

notion of openness inherent within unlimited semiosis demonstrated his commitment to difference, pluralism, free access to information, and democracy (Bondanella 88). Bondanella contends that Eco understood semiotics both as a theory advancing these possibilities as well as one that produces ideological and manipulative environments that view audiences as objects to advance political ends (88).

Eco announced semiotics as a tool for participation in civic life, armed with the power of critical thought and reflection. Eco contended that even the most powerful totalitarian regimes could not control mass communication against well-informed and thoughtful audiences equipped with semiotic insight. In his famous essay, "Towards a Semiological Guerilla Warfare," Eco articulated the intersections of mass communication, semiotics, and interpretive responsibility, writing: "the battle for the survival of man as a responsible being in the Communications Era is not to be won where the communication originates, but where it arrives" (142). Even when the state controls the means of production, audiences have the powerful responsibility of interpretation. Eco privileges the role of the audience or the reader who interprets in interaction and exchange with the text.

For Bondanella, Eco's work demonstrates the transitions of cultural aesthetics and semiotic theory to applied implications in story-laden action through his novels. While some could frame his shift from "pure semiotic theory" exemplified by *A Theory of Semiotics* to literature "a step backward" or evidence of the shortcomings of his theoretical work, Bondanella responds quite differently (171). For Bondanella, Eco does not privilege theory above practices; in fact, Eco's ability to implement semiotic concepts into *The Name of the Rose*, a worldwide best-selling novel that would later become a major motion picture starring Sean Connery, announced his concern with practical implications. While Bondanella labels *A Theory of* 

Semiotics as his "most comprehensive and systematic contribution to formal semiotic theory" (69), The Name of the Rose embodied esoteric semiotic concepts in the lives and stories of characters situated within historical and contextual frameworks. Bondanella emphasizes that despite the abstract concepts and technical terminology constructing his semiotic theory, Eco sought implications for political and cultural life via interpretation.

Michael Caesar, who articulates the path that led Eco to his literary endeavors, follows a similar path as Bondanella, with an emphasis on interpretation; for Caesar, however, primary consideration lies within interpretation of aesthetic messages. Caesar's discussion of Eco's semiotics, like Bondanella, begins by situating *A Theory of Semiotics* as the result of the unsuccessful efforts to translate *La struttura assente* into English—despite its translation into seven European languages (54). As Eco re-wrote his semiotic theory with the assistance of David Osmond-Smith, *A Theory of Semiotics* became his first book written in English (79). At the time of this publication in 1976, only a few of Eco's essays were available to English speaking audiences. Unlike in Italy and throughout Europe, the public recognition of Eco in the United States at the time was limited. *A Theory of Semiotics*, however, gained attention from broad academic circles.

Caesar situates *A Theory of Semiotics* within a discussion of the aesthetic message that incorporates linguistics and information theory, emphasizing the notions of communication, signification, and codes. Communication and signification are the two processes that constitute a theory of general semiotics for Eco. Communication involves the production of signs while signification considers the codes that make signs meaningful. Caesar restates Eco's argument that although communication and signification are theoretically distinct, they are not "mutually exclusive" (81). Theoretically speaking, communication always depends upon signification, and

as such, it is possible to offer a semiotics of signification without a semiotics of communication but not vice versa. Signification consists of codes; however, Caesar recounts Eco's textured and nuanced use of the term "code" as distinct from signals, notions, behavioral responses, and even signs (82). In the semiotic framework, these entities are s-codes. The primary task of the codes of signification pairs s-codes in order to actualize human meaning (82). The codes of signification permit correlations between signs and interpreted meaning (82–83). Communication, as a theory of sign production, depends on these codes as their ability to frame sign-functions and not only signs.

Caesar highlights the role sign-functions that pair expression units (i.e., words, traffics signs, emblems, etc.) with content (and meaning). For Eco, Caesar explains, semiotics is more concerned with sign functions than signs (85). The emphasis on sign functions is twofold: (a) it emphasizes the performative notion of semiotics within the ongoing enactment of unlimited semiosis, and (b) it clarifies the importance of correlation for interpretation (84–87). He discusses how sign functions operate within sign production or communication with a clear focus on labor (91). Caesar recounts two primary shifts in Eco's semiotic theory following the publication of *A Theory of Semiotics*. The first corresponds to an increasingly pragmatic understanding of sign and code following further consideration of Peirce; the second redirects his focus on the semiotics of texts from a pragmatic framework (100). These shifts emphasized interpretation as an ongoing rather than limited occurrence.

Caesar identifies these shifts as fundamental to Eco's 1984 work, *Semiotica e filosofia del linguaggio/Semiotics and the Philosophy of Language*, centered around five coordinates: sign, meaning, metaphor, symbol, and code (101). These coordinates advance the aesthetic implications of the encyclopedia for cultural understanding. Caesar alludes to how Eco uses

these coordinates as a platform to respond to earlier reviews of his semiotic theory. Interestingly, Caesar contends that these reviews primarily focused on the excluded themes in *A Theory of Semiotics* or extensions of the work's implications (102; c.f. Lepschy, De Lauretis). For instance, Caesar comments on the concluding discussion of *A Theory of Semiotics*, which addresses the speaking subject only briefly in the final pages of the work as a direct response to Julia Kristeva,<sup>34</sup> who works from a position largely influenced by the psychoanalytic perspectives of Freud and Lacan (105–106). Teresa de Laurentis<sup>35</sup> juxtaposes Eco's emphasis on the social, cultural, aesthetic, and ideological implications of semiotics and signification to Kristeva's subject-focused understanding. Caesar contends that Eco ultimately upheld his understanding of the subject, in *Semiotics and the Philosophy of Language*, as dynamically formed, like the sign, in response to history, society, and semiosis in the constituting of culture (107). Together, *A Theory of Semiotics* and *Semiotics and the Philosophy of Language* placed Eco in intellectual conversation with leading semioticians about the boundaries of semiotics and the overlap between the semiotic and the natural world.

These two works received high readership and numerous critical reviews, specifically in the United States. Reviews from American communication scholars appeared from Frank E. X. Dance, Thomas W. Benson, Richard L. Lanigan, and John N. Deely. These reviews emphasized the connection of semiotics to rhetoric, philosophy, and ethics. Lanigan also commented on Eco's concluding discussion about the speaking subject as an acknowledgement of

<sup>&</sup>lt;sup>34</sup> Julia Kristeva (b. 1941) is a Bulgarian-born French philosopher whose work addresses feminism, semiotics, structuralism, and psychoanalysis. Her work joined insights from Freud, Saussure, and Peirce to construct a new approach to semiotics, semanalysis, which aimed to place speaking subjects within a philosophy of language.

<sup>&</sup>lt;sup>35</sup> Teresa de Laurentis (b. 1938) is an Italian philosopher who explores semiotics, psychoanalysis, and women's studies. She is the author of a 1980 Italian work entitled *Umberto Eco* with La Nuova Italia. From Eco's interpretation of Peirce, de Laurentis offers a semiotics of experience, which emphasizes corporeality.

phenomenology. In *Semiotica*, Deely<sup>36</sup> offered a 1976 review of *A Theory of Semiotics*, framing this vast array of subject matter as reaching across disciplinary boundaries without destroying its ability to achieve an overarching approach. From Deely's perspective, Eco offered a doctrine of signs in its "nascent form" powerful enough to comment on cultural possibilities, encompassing the mass produced, the popular, and the avant-garde ("Doctrine" 174). Over twenty years later, in 1997, Deely frames *A Theory of Semiotics* as "one small step for philosophy, one giant leap for the doctrine of signs" ("Looking" 82). Deely celebrates the reach of Eco's work as it spread throughout the intellectual world from culture to culture and language to language.

Eco's work had international influence, directing debate and discussion about semiotics. Deely identifies Eco's work as particularly significant "in the muddled transition" from semiology to semiotics as corresponding to the hope of moving beyond an idealistic modern era to a postmodern recognition ("Looking" 87). Deely understands the title, *A Theory of Semiotics*, as a step away from Saussure's prevailing domain of the study of signs; however, for Deely, Eco did not achieve, against his efforts and intentions, the shift away from idealistic assumptions of signs (83–84). Specifically, Deely counters Eco's translation of *signum* into sign function (85–95). Deely works through the history of semiotics rooted in Greek and Latin philosophy, Poinset, Locke, and Peirce. He contends that *signum* is both "broader" and "more fundamental" than Eco's notion of sign function, and with this translation, Eco's framing of semiotics would fall into "disarray" (110). Deely's concern with the meaning of *signum* is present in both his 1976 review and in his 1997 reflection. According to Deely, the "theoretical heart" of Eco's work was outlining a doctrine of signs that embraced a "bewildering array of pursuits" (87–88). Semiotics

<sup>&</sup>lt;sup>36</sup> For more information on the overlap and intersections between Deely and Eco, see Kalevi Kull's 2017 essay, "Umberto Eco and John Deely: What They Shared."

as a field of study, however, has moved beyond *A Theory of Semiotics* without leaving it behind (110).

Susan Petrilli, likewise, comments on the significance of A Theory of Semiotics in establishing interpretation semiotics. She contextualizes Eco's semiotics within a "decisive" era in the development of semiotics during the mid-1970s—a time of transition shifting from "decodification semiotics," influenced by Saussurean linguistics, to interpretation semiotics, emerging from pragmatist tradition of Peirce and Morris (121). For Petrilli, A Theory of Semiotics introduced this perspective to a global audience, and Semiotics and the Philosophy of Language advanced this framework with five themes: sign, meaning, metaphor, symbol, and code (123). These coordinates articulate how the semiotic community "rediscover[ed]" interpretation semiotics, by resisting "polariz[ed]" perceptions of code and message, langue and parole, language and vernacular (125). Interpretation semiotics, instead, embraces an understanding of signs characterized by "polylogism, plurilingualism, multiaccentuativity and pluriavailability" (125). For Petrilli, this approach aligns with the philosophical positions of Levinas and Bakhtin, two scholars who ground her work with Augusto Ponzio on semioethics. Petrilli announces how interpretation semiotics invites dialogic possibilities by embracing openness, difference, and interpretation (124).

Gary Radford also privileges the semiotic role of interpretation in *On Eco*. Radford emphasizes interpretation between text and reader as foundational to Eco's work; he describes the text in terms of semiotic language, as a particular arrangement of expression units placed in relation to other expression units. Radford indicates that interpreters do not discern meaning by gathering isolated instances of signs individually encountered but rather as they appear within texts alongside other signs (19). Signs stand for something in the context of a text and in the

personal knowledge of the encyclopedia. In this tension and exchange, interpretation emerges. Interpretation occurs within ongoing semiosis, as entities exist as both content (meaning) and expression (sign vehicle) (23). Interpretations of signs become signs that prompt further interpretation as they participate in unlimited semiosis, the encyclopedia, and the labyrinth of existence.

In semiotic terms, this interpretation occurs in communication and signification. Radford describes communication as "what is said" and signification as "what is meant" (44–45). Radford aligns communication with Shannon-Weaver's sender-receiver model, emphasizing the necessity of "labor" in sign production (49). Communication as a theory of sign production necessitates labor as signs correlate to content in the production of an interpretant (50). Signification, conversely, constitutes the laws of culture. Radford explains that, for Eco, cultural codes allow us to recognize signs that correspond to knowledge within the social competence of an encyclopedia. Humans embody these codes as a "semiotic environment" that we label culture (51). The labor of sign production becomes ideological communication as texts select and form messages by privileging a particular worldview or interpretation over all others (56). Ideology gains a twofold power in announcing what is meaningful and how to understand/interpret what is meaningful (58). Semiotics, then, not only becomes a framework for ideological labor but also a platform for critical interpretive response within the codes of signification (62). Radford explains that Eco's understanding of interpretation involves invention, imagination, and inference, not "mechanical decoding" (63). Semiotics represents, intervenes, and exists as a social force (80).

Radford, as well as Bondanella, Caesar, Deely, and Petrilli, underscore interpretation as a defining characteristic underlying Eco's semiotic project. They situate interpretation within the processes of communication and signification as detailed in *A Theory of Semiotics*. Later, in

Semiotics and the Philosophy of Language, Eco advances the importance of interpretation from a pragmatic perspective. Interpretation becomes a defining element of the sign. In conjunction, these two works represent Eco's semiotic project, including the comprehensive theoretical account and its later extensions into the philosophy of language. These scholars announce the central coordinates that structure the upcoming discussions outlining these books.

#### 4.2 A Theory of Semiotics

A Theory of Semiotics appeared within Indiana University Press's "Advances in Semiotics" series edited by Thomas A. Sebeok. The project began with Eco's attempt to translate his Italian works on semiotic theory into English. However, the task prompted Eco to rewrite and rethink the project as a new and distinct work (vii–viii). This semiotic project moves away from the objective empirical assumptions of semiology that attempted to uncover "a logic of truth" and instead sought to understand "a logic of culture" in Eco's theoretical depiction of signification and communication (3). These three conceptual coordinates—a logic of culture, signification, and communication—structure this examination of A Theory of Semiotics. As a logic of culture, semiotics attends to the what, why, and how of culture through the processes of signification and communication. Signification outlines Eco's meaning-centered portrayal of a theory of codes that provides the foundation for all cultural possibilities. Communication describes an alternative mode of semiotic engagement in the theory of sign production; specifically, communication attends to the embodied production of signs in the activation of cultural codes, which garners meaning, as the production of signs constitutes cultural experiences. Theoretically, semiotics establishes a logic of culture that offers implications for this project's quest to understand lists as culturally significant.

#### 4.2.1 A Logic of Culture

Eco's interest in semiotics was a direct extension from his graduate work in medieval philosophy and aesthetics that shaped his earliest publications—*The Aesthetics of Thomas Aquinas* in 1956, *The Open Work* in 1962, and *Apocalyptic and Integrated Intellectuals* in 1964. These early interests guided Eco's entrance into the semiotic scene as a framework to understand culture. Eco begins *A Theory of Semiotics* with an introduction aptly titled "Toward a Logic of Culture" that frames semiotics as a field of study. As a field, semiotics appears in "many and varied forms" as opposed to a discipline with a clear method and distinct content (7). The field of semiotics addresses culture in its entirety; yet, to escape the misconception that semiotics, then, becomes the study of everything and, thus, nothing, Eco describes semiotics as "a theory of the lie" (6). For Eco, what cannot lie cannot reveal truth and, therefore, cannot tell anything (7). Thus, all that can be used to lie becomes the content of semiotics, employed through the processes of communication and signification.

Communication and signification, in conjunction, form culture. Although methodologically and theoretically distinct, these processes are "strictly intertwined" in the lived experience of culture (9). Communication as a theory of sign production occurs in the transfer of messages. Signification, however, is a prerequisite and "necessary condition" for communication between and among persons; without signification, communication would not be possible (9). The distinctive quality of signification rests in its connection to codes. Signification as a theory of codes relies upon a system of rules or conventions that ignite interpretive responses. Codes pair "present entities with absent units" and allow signs to obtain its *standing for* quality (8). Furthermore, codes rely upon correlations "valid for every possible addressee" even in the absence of an addressee (8). This framing of semiotics illuminates interpretive possibilities and

reveal Eco's commitment to the American pragmatic tradition founded by Peirce and extended by Morris.

Peirce explores the interplay of sign, object, and interpretant in an ongoing process of semiosis. He offers an alternative to Saussure's two-fold interaction between signifier and signified by highlighting interpretive possibilities through his notion of Thirdness (14). Peirce defines a sign as something that "can *stand for* something else to somebody only because this 'standing for' relation is mediated by an interpretant" (15). Eco relies upon Peirce's emphasis of the *standing for* quality of signs as well as his embrace of unintentional and natural, non-human sources. His triadic articulation of signs may or may not emerge from human senders; he frees semiotics from a strict theory of transactional communicational acts that limits signs to human behaviors (16). Eco's articulation of sign also builds upon Charles Morris's understanding as something interpreted by someone. Eco modifies Morris's understanding of the sign as a "possible interpreted by a possible interpreter" (16). For Eco, the presence of the interpreter does not dictate the presence of the sign; codes and signs exist prior to and independent of human interpreters. The performative practice of interpretation relies upon human action.

From this semiotic perspective, interpretation emerges from the signification and communication processes that comprise culture (22). Specifically, Eco explains that communicative exchanges are possible because of a signification system of codes that permit unlimited semiosis to unfold down different and divergent paths (28). Communicating and signifying are social functions that (re)organize culture, and thus, Eco acknowledges that his own reflection on general semiotics influences and changes the universe of general semiotics (29). Semiotics as a logic of culture allows researchers to change the "social practice" of semiotics or, alternatively, to reinforce codes that "leav[e] the world just as it is" (29). The logic of culture

lends insight into how and why people speak as they do and determine future speaking and thus begins with an examination of the codes of signification.

## 4.2.2 Signification

While codes are the defining characteristic of signification, Eco begins with the notion of sign-functions, which correlate expression units and content units. The correlative aspect of the sign-function, recognizable by human society, distinguishes signs from signals, which may or may not correspond to content. Eco privileges the sign-function and its correlating power to the abstract notion of signs. The correlation of content and expression in sign-functions occurs within codes and, thus, within signification. These correlations, however, are not permanent or fixed, but rather "transitory" where sign-functions can simultaneously depend upon different codes (48–49).

Eco defines codes as "the rules[,] which *generate* signs as concrete occurrences in communicative intercourse" (49). These rules do not construct permanent structures but instead offer possibilities of human meaning based upon transitioning sign-functions. Like sign-functions, the rules of codes are not fixed—there is no one accurate or correct code. Rather, codes operate within the diversity and complexity of the infinite relationships available within the encyclopedic structure of the universe (49). Codes offer the rules of culture and provide vast possibilities for how human society can recognize meaning emerging from the transitory nature of sign-functions. The code is a channel for human signification, carrying the semiotic power of meaning-centered influence.

Eco articulates that codes offer abstract connections between persons in the potential construction of meaning. He contends that the code anticipates correlations between a sign-function's content and expression, which become interpretants in the absence of an empirical

interpreter (8). Eco offers an automobile and a floating buoy to indicate gas levels as an initial example where communication changes the direction of the pointer in response to varying levels of gas and signification as the ability for human interpreters to determine the direction of the pointer as an indication of whether one needs gas (32). Eco later complicates the example with a watershed buoy that indicates degrees of danger in relation to water levels. In both examples, the code offers possibilities for meaning and interpretive response.

Through signification, codes underscore Eco's semiotic theory where meaning is the interpretive engagement between text and interpreter in the construction of culture. Eco emphasizes the notion of text as a "multileveled *discourse*" with "intertwined contents" that replaces the notion of message in communication theory (57). Texts acknowledge that a plethora of content lies within each sign with divergent possibilities for signification; there are many cultural codes. Signification allows for the hypertextual co-presence of codes and intertextual exchange between codes. Cultural codes open texts to possibilities for (re)arranging meaning.

The open aspect of signification resists the referential fallacy that assumes that a sign inherently has "something to do with" its corresponding object, content, or referent (62). Instead, Eco recognizes that the referent becomes a question as signs and codes change in response to the infinite "possible states of the world" or to lie about "no real state of things" (58). He contends that, with each opportunity to lie, there is signification. Eco again illuminates semiotics as a theory of the lie as he consistently and persistently denies theory's ability to announce objective and total Truth. The central problem of signification stems from the "complicated" nature of meaning (61). Meaning cannot reduce sign-functions to referents; instead, sign-functions act as "social forces" that frame the meaning of language and action (65–68). The meaning of sign-functions clarifies its role as a "cultural unit" as codes pair expressions and content (67). The

interpretive chain emerging from the existence and recognition of cultural units represents Peirce's notion of the interpretant.

The interpretant is among Peirce's threefold explanation of semiotics along with the object and sign. Eco cautions that the interpretant is not the interpreter, but rather the interpretant "guarantees the validity of the sign, even in the absence of the interpreter" (68). The notion of the interpretant enriches the cultural implications of signification and releases it from metaphysical constraints (70). The interpretant produces connotative meaning (evaluative interpretation) and denotative meaning (definitions of meaning). In fact, Eco summarizes the interpretant as "all possible semiotic judgments that a code permits" (71). Inherent within the interpretant are all possible meanings and interpretive responses. Through these rich possibilities of meaning, the interpretant escapes both the referential fallacy and structuralism by privileging the meaning-centered implications for cultural contexts. Eco contends that the interpretant is not simplistic or easily articulated; in fact, this theoretical concept gains its power and "purity" from its "vagueness" (71). Through its vague, abstract, and ambiguous nature, the interpretant represents the complex and multi-layered nature of meaning. The interpretant makes possible what Peirce calls "infinite regression" and what Eco terms "unlimited semiosis" in the ongoing action of signs—as interpretants become signs that prompt further interpretants and then more signs (69).

Unlimited semiosis moves in an ongoing and circular path as a "normal condition" of signification and communication that transforms sign-functions into cultural units that become other cultural units (71). Signification grants cultural units meaning and makes interpretation of texts possible (129). Our familiarity with cultural codes reflects our ability to activate, navigate, or manipulate cultural conventions to uncover meaning. These modes of engagement represent

our ability as interpreters and producers of texts engaged in overcoding and undercoding.

Overcoding results from a significant depth of cultural knowledge, whereas undercoding occurs in guessing or discerning cultural codes that are unknown or not known well. Eco frames these actions as abductive practices.

Peirce offers abduction as an alternative form of logic to induction (which generalizes particular cases to form possible laws) and deduction (which works from known laws to understand particular cases). Abduction, however, makes use of cases and laws to discern meaning. Abduction is the "synthetic inference" of deduction and induction—of rule and result (131). Signification involves abduction as interpreters act like a Sherlock Holmes detective, whose undercoding and overcoding practices enrich cultures with new insight. Cultural conventions, which emerge from the undercoding and overcoding practices of abduction, ensure "flexibility and creativity of language" as codes produce unanticipated interpretations (132–133). Signification relies upon activating and rearranging codes in the abductive pursuit of meaning enacted in practices of overcoding and undercoding.

Undercoding and overcoding instill opportunities for cultural meaning in semiotic texts. Through overcoding, interpreters uncover new meaning by rearranging sign-functions activated by codes. With these new correlations, interpreters use known codes to activate less conventional actions (133). Undercoding, however, results from limited familiarity with the rules and laws of cultural codes or their possible correlations (136). Undercoding and overcoding arrange and rearrange codes of meaning, allowing for divergent and co-present valid interpretations.

Overcoding and undercoding lie "half-way between" signification and communication as they simultaneously constitute the codes of signification and the labor of communication (137).

Overcoding and undercoding exemplify the transitory connection between codes and messages in the nature of openness.

Eco imbues communication and signification with openness to interpretive possibilities based upon "[t]he multiplicity of codes, contexts, and circumstances" that exist even within one single message (139). Interpreters could approach a message from infinite standpoints, biases, and perspectives that open possibilities of meaning. The message, as Eco explains, may actually be better understood as a text, composed of multiple messages and made meaningful in navigating a realm of difference. Texts and messages obtain information that corresponds with ambiguity rather than clarity. From the excesses of information, definitional choices become the path to meaning, and in aesthetic texts, the surplus of information maximizes, rather than minimizes, ambiguity and meaning (140–141).

Eco explains that signification as a theory of codes rests at the foundation of culture and general semiotics framed as a logic of culture. The codes of signification indicate all possible patterns of human meaning, even those that currently do not construct prevailing cultural conventions. Human interpreters navigate codes through the abductive practices of overcoding and undercoding, which re-organize and re-structure interpretation by re-arranging existing codes to form new insight. As "the format of the semantic universe," signification as a theory of codes becomes the springboard from which communication as the theory of sign production becomes possible (142). Communication builds onto and relies upon signification. Eco explains that signification is a base for communication; the activation of codes produces signs and transfers meaning. Communication is the labor of transferring information in the production of signs via the activation of cultural codes.

#### 4.2.3 Communication

Eco frames communication as sign production actualized in "productive labor" (151). He overviews eleven types of labor involved in producing and emitting signs, interpreting texts, and framing messages for particular addressees (153–156). For Eco, communication operates through this labor, directing focus to "extra-semiotic circumstances" (158). He explains that semiosis occurs in the action of signs given life through human interpreters; the labor of communication that produces signs via semiosis accounts for the unanticipated events that deny the misconception that codes offer "absolute purity" (158). Eco associates communication with semiotic creativity that allows human interpreters to label and depict phenomena and events through new explications. Communication involves the labor of semiosis as human interpreters produce signs via the unlimited regression of semiosis. Thus, communication and semiosis produce new signs that activate codes in unanticipated patterns and verify the validity of numerous and divergent interpretants.

Within a discussion of communication from this perspective of semiosis, Eco adopts Peirce's "philosophico-semiotical position" rooted in the work of medieval Franciscan friar, William of Ockham—namely, that signs correspond to concepts (166). From this position, Peirce contends that signs can be but are not always objects in the lifeworld; thus, ideas can also be understood as signs. Eco traces the connection of linguistic and perceptual meaning throughout the history of philosophy and the phenomenological tradition. Eco explains that semiotics accepts phenomenology's quest to discern *the things themselves* as its "data" and "basis" for communication (167). From this phenomenological perspective, the notion of referent becomes ambiguous, producing signs in a manner similar to aesthetics. The production of signs then gains an element of openness that moves Eco to address typologies of sign production rather than typologies of signs.

Eco responds to Peirce's triadic typology of signs classified as icons (resembling objects), indices (results or extensions of objects), and symbols (arbitrary representations of objects) (178). Specifically, Eco problematizes "naïve" assumptions about the relationship between icons and objects that frame them as the "same properties," "similar," "analogous," "motivated," "arbitrarily coded," or "subject to a multiple articulation" (191–192). Eco argues that the icon is not a type of sign (216). Instead, Eco offers a typology of sign production, of sign-functions, of communication, but not of signs (218). Eco's typology of modes of production takes into account the physical labor, type/token ratio, continuum, and articulation of communication (218–219).

Eco identifies four types of physical labor that constitute modes of communication—
recognition, ostention, replica, and invention. Recognition occurs when interpreters identify
phenomena or objects as expressions correlated to content (whether intentional or unintentional)
within the patterns of codes (221). Recognition includes imprints, symptoms, and clues, as
motivated according to existing codes or one' ability to overcode with significant familiarity of
grammatical units (218). Ostention results from interpreters who identify expressions as a
representation of a type of object, nature, or human action (224–225). Ostention includes
examples or samples that operate according to existing codes or overcoding practices (218).
Replicas occurs in the combinational practices that imitate, repeat, or duplicate aspects of
expression to frame content through stylizations, vectors, programmed stimuli, and pseudocombinational units (227–245). Replicas are motivated and "arbitrarily selected" through
overcoding (218). Invention occurs when producers of sign-functions arrange and re-arrange
codes to create novel possibilities for meaning (245). Invention transforms knowledge via

congruencies, projections, graphs, and "code-making" (250). Both undercoding and overcoding participate in invention as communication or sign production.

Communication labors in response to existing cultural codes. Communication acts through signification, in response to what is. Eco explains that interpreters engage invention, replica, ostention, and recognition as they navigate their way through the codes and texts that comprise signification or culture. These forms of labor direct the turns of semiosis, producing sign-functions that contribute to the developments of cultural meaning (256). Cultural codes exist with the potential for human interpreters to uncover possibilities of new meaning, but one's ability to engage communication requires that one labor from a social and cultural environment (256). Communication labor permits creativity akin to the aesthetics of open texts.

From Eco's semiotics, texts offer a web of communication interactions that open possibilities for interpretive insight. The aesthetic text is characterized by an ambiguous and "self-focusing" quality that embraces hypertexts, hypersystems, and hypostructures (264–265). The co-presence of texts, systems, and structures warrant unexpected meaning to emerge from sign-functions (268–270). Aesthetic texts gain a surplus of information that prompts ambiguity. In response to the ambiguity, interpreters enact the abductive process that invites interpreters to discern meaning by considering particularity of case and generalized codes. This abductive task constitutes what Eco names "code-changing" (273). Eco contends that every text threatens codes by opening possibilities for new interpretations to transition between and among codes.

Ultimately, Eco explains that abductive practices change codes, causing interpreters to see their world, history, and culture differently. Abduction proposes hypothesis that investigate and discern limits for new and old codes (274–275). Code-changing appears through two abductive practices: overcoding and undercoding.

Eco frames rhetoric as the necessary labor for code-switching. He explains the association of traditional rhetorical thought with *elocutio*, or elocution, characterized by embellishments and "*ready-made sentences*" often associated with "artistry" (279). However, rhetoric offers more than *elocutio*; it can also transform the meaning correlations in sign-functions via *inventio* and *dispositio*. The rhetorical figures, metaphor and metonymy, offer two examples that grant signs meaning through a "fuzzy logic" (286) that requires code-switching. Unlike ideology, rhetorical code-switching opens possibilities for interpretation without imposing preferred or correct meaning.

Communication, for Eco, is a "social force" that can labor to form or critique ideologies (298). The deeply social and cultural implications of semiotics position it as a logic of culture rather than a logic of truth. The codes of signification make cultural meaning possible through semiosis of interpretants as the labor of communication. Through semiosis, empirical subjects communicate within the systems of signification. Eco identifies these empirical subjects as part of the semiotic structure of signification and the transactional processes of communication. Eco clarifies that sign production is only possible because of the labor of empirical subjects who produce and correlate expressions with content. For Eco, semiotics avoids idealism only by recognizing these subjects as they appear through sign-functions via production, criticism, and renovation of codes (317).

In conjunction, a logic of culture, signification, and communication frame Eco's theory of general semiotics as outlined in *A Theory of Semiotics*. The work offers insight into the intertwined value of communication and signification, as they constitute a "logic of culture." This work introduces an understanding of semiotics that emphasizes culture and interpretation rather than underlying base structures and theoretically-verified objective truth. Following the

publication of *A Theory of Semiotics*, Eco continued to pursue his interpretive approach as he secured an international audience. The next section turns to Eco's 1984 work, *Semiotics and the Philosophy of Language*, as an extension of the project introduced nearly a decade earlier.

# 4.3 Semiotics and the Philosophy of Language

Eco extends his semiotic theory in *Semiotics and the Philosophy of Language* from his participation at academic conferences and lectures at the University of Bologna, Yale, and Columbia (ix). This book emphasizes the importance of interpretation as a defining characteristic of the sign and as foundational to semiotics as a philosophy of language. Petrilli and Caesar both identify five central semiotic concepts—sign, meaning, metaphor, symbol, and code—that structure this section's attempt to understand semiotics as a philosophy of language, beginning with the connections between signs and semiosis.

## 4.3.1 Sign

Eco exhibits no opposition between the sign and semiosis. Despite the "nomadism" of semiosis and the "immobility" of signs, Eco acknowledges the sign as the starting point for the process of semiosis and semiosis as present at the "core" of the sign (1). Eco continues to counter the assumption that signs have a univocal correlation between a signified and a signifier.

Consistent with his earliest writings on semiotics, Eco affirms semiosis as the unlimited, or in Peirce's terms infinite, "process of interpretation" (2). Eco presents interpretation without falling into the misconceptions of singular correct interpretation rooted in the author's intentions or relativistic meaning found in any reader's interpretation. His work directly and deliberately opposes these extremes. Instead, Eco associates interpretation with Peirce's semiosis, which requires interactive exchanges between texts and readers. Within this between where semiosis occurs, interpreters discern meaning by venturing into a public and culturally formed

encyclopedia of prevailing knowledge (3). As interpreters connect nodes of information within the encyclopedic labyrinth of cultures, meaning responds to, emerges from, contextualizes, and builds upon the existing cultural codes that constitute signification. Eco places his discussion of signs within a philosophical tradition that approaches general semiotics as a philosophy of language.

Eco deliberately differentiates general semiotics from specific semiotics. Unlike general semiotics, specific semiotics imitates and aims to achieve the status and "predictive power" of science (5). General semiotics, contrarily, embraces the sign and its correlative functions performed in communication and signification (7). While Eco identifies the sign as the primary focus of general semiotics, he problematizes its history as a concept that has gained too many meanings and functions (8). By positioning the sign within general semiotics, it does obtain scientific, predictive power. The sign is not an empirical object in the lifeworld, but rather, the empirical objects we encounter every day become signs because of a philosophical choice with "explanatory power" (11). General semiotics as a philosophy of language frames the world through a lens that cohesively frames otherwise disconnected information, data, and phenomena.

With this philosophical ability, general semiotics gains "practical power" to transform the circumstances of the world. Philosophy describes the world from a particular lens but cannot predict what would happen if the world, in fact, adopted its explanations. For instance, philosophical choices practically framed and explained the Western world according to subjectivity, but it could not predict the consequences of its agent-driven individualistic perspective (12). Eco contends: "Philosophies can say everything about the world they design and very little about the world they help to construct" (12). As a philosophy, general semiotics transforms the world; however, it can never foresee the consequences that will emerge. By

4.3.2 Meaning

investigating language through language, general semiotics transforms it own subject matter and its primary philosophical choice—the interpretation of signs.

The sign, according to Eco, is *the* fundamental defining characteristic of semiotics despite its long, entangled history (14). He recounts the many divergent definitions of sign used in everyday vernacular and in philosophical vocabularies. These definitions exemplify a concept in crisis that has lost its power and philosophical meaning—a term devoid of nuanced and textured articulation. Within general semiotics, Eco places the notion of signs within the concept of abduction. Abduction becomes the interpretive practice by which signs obtain meaning. Signs participate in abduction in three ways. First, overcoded abduction occurs when interpreters reference cases and known codes to discern meaning. Second, undercoded abduction allows particular cases and unknown general rules to frame interpretive practices. Third, meta-abductive practices reference general rules and particular cases to invent codes without anticipating outcomes of meaning (40–42). The notion of abduction places signs in response to "social habits" and requires interpretation rather than recognition (43). Thus, in addition to its *standing for* quality, "interpretability" is the primary principle of signs (43).

Eco explains that without the sign's interpretability, semiosis would not be possible, and through semiosis, the interpretability of signs *opens* meaning beyond a dormant linguistic concept with unidirectional meaning (43–44). As semiosis opens the interpretability of signs, it influences the empirical subjects of semiotic action. Eco contends that we, as semiotic subjects, recognize ourselves in the active engagement of semiosis (45). Just as semiosis frames the meaning of signs, it frames how we understand the world and our place within it—as situated within historical and cultural contexts. Meaning becomes the product of unlimited semiosis.

Signs within semiosis shape meaning, attentive to both denotative and connotative insights. Eco places this discussion within his distinction between dictionaries and encyclopedias. For Eco, the dictionary aims to uncover direct, universal meaning, whereas the encyclopedia represents openness of interpretive possibilities as texts allow any node of information to connect to any other point in the network. Eco describes dictionaries as "impoverished encyclopedias" that lack semiosis of meaning (47). The dictionary, in its imitation of a Porphyrian tree, <sup>37</sup> operates like a computer algorithm's binary code that attempts to analyze and discern information without understanding its meaning or consequence (56). Eco shatters the "bidimensional" structure of the Porphyrian tree, instead, framing the dictionary as a "disguised encyclopedia" (68). Meaning emerges from the encyclopedia through the action of interpretants performed in semiosis (68).

The encyclopedia represents the meaning-centered possibilities of semiosis and mirrors the chaotic structure of cultural universes. The encyclopedia is a hypertext that situates cultural competences in the interpreter's encounter with co-texts (69). Signs and interpretants gain initial contextual knowledge in the "introducing event" that allows for the succeeding "causally connected" interpretations (74–75). However, the "introducing event" does not represent the meaning of a sign transferred from one person to another but rather the encyclopedic chain of social competences. The meaning of signs, even as they participate in unlimited semiosis, always depends upon their historical expressions, given to us when we were born into pre-existing systems of language and culture. Meaning, however, manifests from the "labyrinth" of the encyclopedia in its fullest perplexity (80).

<sup>&</sup>lt;sup>37</sup> The Porphyrian tree was a classic Greek concept emerging from neoplatonist philosopher Porphyry, which offered a classification device represented with *genera*, *species*, and *differentiae*. After being translated from Greek to Latin by Boethius, the Porphyrian tree became a central concept for medieval logic.

Eco distinguishes three types of historical articulations of the labyrinth—linear, maze, and net—with only the net labyrinth aligning with his articulation of the encyclopedia. The linear labyrinth is a classical concept, which holds a Minotaur at its center; the unidirectional path of the labyrinth leads to only one destination—encountering the mythical half man, half bull creature. The maze labyrinth emerges in the late Renaissance; this portrayal traps participants in the midst of numerous paths, all of which lead to "dead ends" except for the one and only path out. The net labyrinth metaphor, unlike its linear and maze counterparts, represents the encyclopedia as each node of information can connect to all others with each path leading to interpretants of meaning. The net labyrinth, which characterizes Eco's encyclopedia and Deleuze and Guattari's rhizome, offers "unlimited territory" for meaning and interpretation (81).

Contrary to the dictionary that "impoverishes" the content and model of the universe, the encyclopedia mirrors cultural existence (82–83). Eco equates semiosis with the network of human culture composed of interpretants that ignite seemingly infinite possibilities for interpretation of meaning. The encyclopedia, then, includes not only factual judgments but also beliefs, doubts, debates, and legends (83). The encyclopedia does not revoke all possibilities for facts but denies theory's capability to recognize or represent Truth in its totality. Because the encyclopedia never concludes, it relies upon local, temporal interpretation rather than global, universal Truth. When encyclopedic insight bypasses its particularity and standpoint, mistaken as universal and "global," it becomes ideological (84). This attempt to manage the encyclopedia characterizes the dictionary's effort; however, the dictionary failed simply because it could not succeed. The value of the dictionary, according to Eco, is its use as a tool, securing "taken for granted" discourses of consensus without mistaking these insights for globalized meaning (85).

Eco clarifies that the dictionary offers pragmatic assistance and the encyclopedia semiotic insight. Meaning emerges in the interpreter's performative participation in semiosis that takes shape in the encyclopedia. Through encyclopedias, rather than dictionaries, interpreters are able to illuminate sign-functions in unexpected and unforeseen ways, revealing the creative venture of meaning characterized by metaphors. Interpreters participate in forging new paths for interpretive meaning through the rhetorical activity of code-switching via metaphorical activity.

4.3.3 Metaphor

Eco alludes to the breadth of philosophical definitions of metaphor from Aristotle to Vico to Ricoeur and beyond, clarifying its close association with rhetoric (87). Metaphors elaborate the power and significance of rhetoric's ability to illuminate meaning. Philosophical definitions of metaphor decide whether to view language, at its very nature and being, as metaphorical or to understand language as rule-governed with metaphor an "anomaly" or "unaccounted for outcome" (88). Eco's interest in the metaphor, however, emerges from its presence in divergent linguistic frameworks, including general semiotics.

As a notion present within general semiotics, Eco addresses how the metaphor requires interpreters to "literally" lie as they speak figuratively, hoping to announce insights "beyond literal truth" (89). The metaphor's use of lie firmly places it with the semiotic realm as it produces "additive, not substitutive," meaning (89). Eco explains that as a semiotic and rhetorical device, the metaphor necessarily involves synecdoche (part for whole) and metonymy (material for object), grounded in Aristotle's *Poetics*. For Aristotle, metaphor was a generic term classified into four types that indicate either *how* metaphors function or *what* the metaphor indicates in the production of knowledge relations. Eco's focus lies in the latter "cognitive"

function (99–100). Eco explores what metaphorical interpretations allow us to know in an additive sense.

Eco follows Aristotle's contention that the metaphor cannot be minimized to simply an "ornament" but rather as tool to provide insight in an unknown and uncharted "enigma" (102). Aristotle associates this illuminating aspect of metaphorical insight with its cognitive function that produces knowledge. Eco understands this knowledge as emerging from metaphors that exemplify the very action of signs in semiosis (102). He exemplifies this practice in medieval encyclopedias, which drew upon cultural signs interpreted with ambiguous, meaning rich codes (104). This net labyrinth produces a maze of cultural possibilities that embrace the necessity of co-texts. Metaphors, in their code-switching rhetorical function, rely upon the simultaneous presence of codes and texts from which interpreters can traverse.

Insight on the communication labor necessary to produce metaphorical insight appears in the Baroque era, with Emanuele Tesauto clarifying that metaphors are not pure invention but rather are a welcoming response to an intertextual "invitation." (106). First, we must labor as we read, study, and learn the echoes of what has been said (106). The second labor of metaphorical practice occurs as we exchange and interchange information between and among texts. Tesauto works from structuralist assumptions that situate intertextual insight outside of "ontological relations" (106). The metaphor, which from a semiotic standpoint tells us about the universe "by lying," announces the limits of formal semantics' effort to uncover a logic of truth (109). The metaphor opens participation to interpreters' knowledge of an encyclopedic world of "intertextual competence" as a way to produce new insight from familiarity with existing texts (121). Metaphors, and their rhetorical implications, contribute to cultural meaning via co-texts that enrich possibilities for interpretation and novelty of insight.

Eco explains that even as metaphors offer additive knowledge about the world, pushing the boundaries of social competencies of an encyclopedic world, they must work in response to existing texts, codes, and conventions. The metaphor prompts the abductive task to uncover "cotext plausibility" (124). Metaphors operate according to varying degrees of openness, allowing interpreters to travel varying distances down the path of semiosis with each path potentially revealing different aspects of the encyclopedic universe. For Eco, these performative practices (the labor of communication) produce and sustain culture. He insists that metaphors can only be produced by the human labor of communication, not by algorithmic computer programming. He argues, "No algorithm exists for the metaphor, nor can a metaphor be produced by means of a computer's precise instructions, no matter what the volume of organized information to be fed in" (127). Eco contends that metaphoric insight is only possible via a "rich cultural framework" comprised of communication and signification and from the labor of venturing into the neverending path of semiosis (127). The algorithmic nature of cybernetics and computer programming operates by discerning pre-established codes that produce uni-directional meaning outcomes. The human engagement of the metaphor in an encyclopedic world cannot be minimized to algorithmic operations. Instead, metaphors require human labor and co-textual familiarity that places interpretants within semiosis as it produces new insights, placed within texts as symbols. 4.3.4 Symbol

Eco understands the symbol as a "textual modality"—as a means for constructing and understanding texts rather than signs (162). Unlike signs, characterized by their interpretability and standing for quality, symbols correspond to textual choices that makes Morse code possible in a "pseudo-everyday language" that informs us when texts contain symbolic insight.

Interpreters outside of this "pseudo-everyday language" would likely miss the symbols (132).

Eco provides a detailed examination of symbols from philosophical, psychological, and religious perspectives. From the semiotic perspective, however, the symbol is always "textually produced" exemplified by the literature of James Joyce (157). In Joyce's work, textually produced symbols appear in the presence of co-texts, which are made meaningful by the simple fact that they "should not be there" (158). Eco relies upon Joyce's use of symbolic co-texts to articulate their role within general semiotics as a notion distinct from signs. Symbols, in Joyce's work, are "undoubtedly" present because they carry "doubtful" interpretation and motivation (161). Eco recognizes that the content of the symbol is to signal a mode of symbolic textual interpretation, reminding interpreters that symbols lack "authorized interpretants" (161). The symbol is not found among the typologies of signs or sign production but rather of textual engagement.

Symbols emerge in the decision to produce texts or interpret them symbolically, as a way to *use* texts to illuminate meaning. When engaged symbolically, texts alter sign-functions by rearranging the correlations between and among expressions and contents. Co-textual and intertextual traditions form symbols used in texts to represent "extrasubjective and extracultural reality" (163). Symbols do not attempt to discern objective, concrete truths but rather enact the encyclopedia of social competences. Symbols, no matter whether in religious texts or otherwise, operate according to a "legitimating theology" that places faith in existing cultural codes that reveal conventions of patterned interpretation (163). The choice of symbolic textual engagement and interpretation encompasses communicative labor that produces sign-functions with texts and signification paths for interpretive meaning housed within codes.

# 4.3.5 Code

Eco articulates the code, within the second half of the twentieth century, as a foundational metaphor for general semiotics constituting signification and making possible communication and culture (165). Before the second half of the twentieth century, perceptions of the code aligned with the dictionary, emerging in three primary types: a paleographic code (that uses one thing to indicate something else), a correlational code (that pairs information within systems to signals), and an institutional code (that outline systems of social behaviors). Beginning with the French structuralist project, however, the code gains a "communicational purpose" with the understanding of language, culture, institutions, etc. as governed by underlying rules and structures (167). From the semiotic perspective, however, the code exists as an encyclopedia, "wrapped in ambiguity" (165–168). Eco celebrates the ambiguity in the excess of information that enriches interpretive possibilities.

Eco argues that codes not only "close" but also "open" interpretive possibilities that generate messages spanning from coercion and obligation to probability and preference to possibility and imagination (187). Codes construct a platform for semiosis to act, infinitely producing unforeseen, unanticipated, and even unprecedented outcomes. Cultural subjects not only act upon codes but, likewise, codes act upon subjects constituting identity, framing responses, and opening possibilities for interpretation (188). Codes offer rules that open texts to the labyrinth of the encyclopedia where all paths could connect and uncover new insight.

While Eco does not place meaning within the text, author, or reader, texts guide interpreters in particular directions. He diverged from Algirdas Julien Greimas's use of isotopy as a semiotic feature of repetition used to discern meaning. Unlike Greimas's emphasis on repetition, Eco associates isotopy with direction. Through isotopy, texts direct interpreters to

<sup>&</sup>lt;sup>38</sup> Algirdas Julien Greimas (1917–1992) was a French-Lithuanian linguist and structuralist, who introduced a theory of signification into structuralist thought.

particular codes. For instance, the statement "I sat on the chair" uses isotopy to direct interpretation toward a particular code with sat (rather than stand, paint, throw, or break) and chair (rather than oven, snow, or fire); isotopy directs interpreters to reaffirm the conventional code that correlates a chair with a function of sitting. Eco frames isotopy as an "umbrella term" that most often refers to "constancy" of direction and minimization of ambiguity (201). Isotopy points interpreters in particular directions that guide their interpretive work through texts.

Eco concludes Semiotics and the Philosophy of Language with a discussion of mirrors, informed by psychoanalysis, phenomenology, and semiotics. Ultimately, he contends that mirrors do not produce signs because they cannot exist or correlate expression and content when its object is abstract or absent, they cannot lie, they cannot appear outside of its medium or channel, and thus, they lack interpretability (216). However, although mirror images are not signs, semiotic subjects use mirrors to achieve interpretive responses. For instances, when movie producers used mirrors to convince audiences that Hayley Mills has a twin in Parent Trap or when fun house mirrors distort our appearance, we permit ourselves to enjoy a "pragmatic holiday" where we suspend our disbelief so that the mirror might lie (218). This practice requires us to pretend as if we look into a plane mirror in order to assist the mirror's lie. Conversely, we can use mirrors and mirror images as semiotic objects when we place them in texts (paintings, novels, songs, etc.) (226). In such contexts, the mirror does not act as a mirror but becomes a sign in our labor to produce interpretable sign-functions of the notions of mirror and mirror images.

Throughout Semiotics and the Philosophy of Language, Eco extended the interpretive project he outlined in A Theory of Semiotics by reinforcing and advancing the pragmatic underpinnings of Peirce and Morris and its implications for cultural theory. His explication of

sign, meaning, metaphor, symbol, and code identify semiotic coordinates that advance a logic of culture, signification, and communication. This commitment underscores the human practice of interpretation. Specifically, as Eco portrays semiotics as a philosophy of language, he moves from an emphasis on the interpretability of signs as a definitive feature of the encyclopedia as a semiotic and cultural concept. He acknowledges the encyclopedia as at the platform for the active engagement of semiosis and the interpretive task of abduction, which reveals meaning. Eco insists that meaning emerges from codes and from the communicative and rhetorical labor of metaphor. Metaphors occur in the human practice of activating, correlating, and combining codes. The code-switching task of metaphor manifests meaning in a path unavailable to algorithmic programming. Furthermore, metaphors allow us to understand the textual modality of symbols within texts that rely upon the codes that constitute cultures. Codes open possibilities for human interpreters to embrace the interpretability of signs, the meaning-rich portrayal of the encyclopedia, the rhetorical task of metaphor, and the symbolic engagement with texts. Through these tenets, Eco points toward a logic of lists as a semiotic construct that forms a base for culture and threatens to end culture through the algorithmic totalization of lists.

## 4.4 Toward a Logic of Lists

Eco introduced general semiotics as a field of study and logic of culture comprised of signification and communication. As he framed his project with a commitment to American pragmatism, he moved contra to Ferdinand de Saussure with a clear emphasis on interpretation that only became more apparent in his later works. *A Theory of Semiotics* and *Semiotics and the Philosophy of Language* present an interpretive approach to semiotics that informs sign, meaning, metaphor, symbol, and code. Through codes, general semiotics makes culture possible by providing space for sign-functions to pair content and expressions. The codes become the

place in which the interpretant actualizes understanding and meaning by relying upon the active engagement of communicative labor.

Eco contends that the practices that sustain and nourish culture require the embodied engagement of semiotic subjects who reflexively participate in semiosis as it simultaneously acts upon them. Algorithms, even the most advanced computer programming, cannot enact the communicative labor of abduction, rhetoric, metaphor, and semiosis. Eco's semiotics reminds us that communication is not equivalent to information science or cybernetics. Likewise, the communicative labor that allows lists to form culture, rearrange codes, and achieve poetic ends requires the semiotics of signification and communication.

The performative practice of listing as embodied labor is a communicative act that produces signs by activating codes that form cultural meaning. The list corresponds to aesthetic texts, endowed with openness and form that participate in codes to produce meaning and insight. Aesthetic lists exhibit renewed recognition about the world, language, and culture. As a semiotic practice, the list is a communicative device performed in the labor of sign production. Eco emphasizes the aesthetic contribution of the list, which when experienced from the perspective of an embodied human interpreter, offers opportunities for interpretive invention that navigates the ambiguity of lists as open and creative constructs. As an open text, the list is a form of communication that is both performative and interpretive.

Returning to the coordinates that characterize Eco's articulation of lists announces the relevance of his semiotic project as he distinguishes human listing from algorithmic programming. Eco's discussion of bounded and boundless lists corresponds to the possibilities of meaning emerging from human list-making practices. Human interpreters embodied within the encyclopedic net labyrinth have access to and the ability to construct both bounded and

boundless lists; whereas, algorithms collect data in the strict bounds of programmed instructions without external insight. Thus, humans garner the capability to produce both practical and poetic lists, endowed with textual modalities enriched with the rhetorical practice of metaphor.

Algorithms practically collect data with pre-established correspondence to specifically coded instructions that aim to deliver categorical information that predicts and organizes experiences in the universe. Eco directly addresses the semiotic implications of meaning within his discussion of the dictionary and encyclopedia. Within general semiotics, culture contains infinite codes of meaning—some regularly activated to form conventions and others unanticipated and unforeseen. Human interpreters labor as they pursue meaning and uncover coherence within its chaos. Without denying the astonishing accomplishments made possible by the algorithmic listing of computer programming, Eco affirms that culture also requires the human labor of communication in the interpretive response made possible by the codes of signification.

Eco's novel, *The Mysterious Flame of Queen Loana*, explores the cultural value of lists and collecting as well as the embodied significance of such performative practices. This novel joins Eco's cultural and semiotic theories applied in literary application. The story depicts a man, who after losing his personal memory must embrace a journey through lists to reclaim identity and meaning. The next chapter turns to *The Mysterious Flame of Queen Loana* to understand the necessary human involvement for the interpretation of lists as he melds together semiotic and cultural theory with the story-formed power of practical implication.

# Chapter 5

Literary Praxis: The Mysterious Flame of Queen Loana

Eco masterfully integrated his semiotic theory and cultural aesthetics into literary praxis throughout his seven novels.<sup>39</sup> Literary praxis represents literature's ability to mirror the human condition in theory-informed action. Beginning in 1980 with his bestseller, The Name of the Rose, Eco incorporated his graduate training in medieval aesthetics and the semiotic practices of abduction, unlimited semiosis, and the encyclopedic labyrinth in story form as the main character, William of Baskerville, investigates a murder mystery set in a library housed within a 14<sup>th</sup>-century monastery. Eco continues this practice in each of his novels, exemplifying various theoretical notions in practical application. This chapter turns specifically to Eco's fifth novel, The Mysterious Flame of Queen Loana (hereafter, Mysterious Flame), which applies his theoretical metaphors of culture, memory, and encyclopedic knowledge to announce the implications of communication and signification. Mysterious Flame, published in 2004 and translated to English by Geoffrey Brock in 2005, tells the story of an antiquarian book collector and bookseller, Yambo, who after suffering a stroke, loses his embodied personal memory (communication) and only retains his cultural memory (signification). The novel takes us on Yambo's journey to construct his identity as he encounters the collections, archives of his youth, and the way in which he established lists.

<sup>&</sup>lt;sup>39</sup> Eco's seven novels include the following titles: *Il nome dell arosa/The Name of the Rose* (1980/1983), *Il pendolo di Foucault/Foucault's Pendulum* (1988/1989), *L'isola del giorno prima/The Island of the Day Before* (1994/1995), *Baudolino/Baudolino* (2000/2002), *La Misteriosa Fiamma della Regina Loana/The Mysterious Flame of Queen Loana* (2004/2005), *Il cimitero di Praga/The Prague Cemetery* (2010/2011), and *Numero Zero/Numero Zero* (2015/2015). Titles first appear in Italian followed by English translation. The years in parentheses indicate the original publication date as well as the year the work appeared in English translation.

This chapter attends to Eco's literary praxis through the semiotic and cultural implications of listing as they appear in *Mysterious Flame* in five sections. The first section, "Situating Eco, The Novelist," overviews responses to and interpretations of Eco's work in literary theory and the relevance of *Mysterious Flame*. The second section, "*The Mysterious Flame of Queen Loana*," recounts the events of Yambo's journey to recollect his embodied engagement with cultural artifacts that provide meaning to his identity. The third section, "Reflective Responses," summarizes Eco's meta-interpretive comments in interviews, essays, and books on the practices employed in his own novels. The final section, "Discerning Eco's Literary Praxis," applies the theoretical insights relevant to listing (already presented in the first four chapters of this project) to the events and characters of the novel with a specific focus on the portrayal of signification void of communication.

In *Mysterious Flame*, Eco depicts a man waking from a coma after a stroke unable to remember what he ate for lunch, the place where he worked, his daily routine, the events of his childhood, or even the names and faces of his parents, wife, or children. The memory loss, however, only affected his personal memory—he retained the ability to remember direct quotes from poetry, the characters and archetypes of literature, precise historical facts, and the lyrics of musical scores. This main character, Yambo, is able to remember and attend to the codes of signification that contain texts and cultural conventions but has lost his embodied encounters with these texts and artifacts. He becomes a caricature of signification void of communication. The novel follows Yambo's journey to recover memory in his childhood collections or what Eco labels "paper memory" (79). The novel articulates the mutual value of signification and communication in the list's capability to provide meaning-making cultural influence for human interpreters.

## 5.1 Situating Eco, The Novelist

Eco embodied many roles—scholar, teacher, department chair, semiotician, cultural theorist, literary critic, expert on medieval aesthetics, public intellectual, book collector, guest curator at the Louvre, etc. This section situates Eco as a novelist, a title he regularly qualified with the label "amateur" (Confessions 1)—Eco's seven novels are a mere fraction in comparison to his scholarly, theoretical, and philosophical works. Repeatedly, he indicated that he was only a novelist on the weekends (Eco and Brown, par. 7; Eco and Harcourt, par. 16). A New York Times obituary celebrated Eco's ability to traverse the dual worlds of literature and philosophy, authoring both bestselling novels and highly technical theoretical works (Kandell). Eco blended popular culture and philosophical and semiotic insight through literary praxis, resulting in many honors from literary and philosophical circles including the Premio Strega (1981), named Chevalier de la Légion d'Honneur by the French government (2003), and, honorary doctorates from over thirty universities from around the world.

Leading intellectuals such as Richard Bernstein, Salman Rushdie, and Ian Thomson reviewed Eco's works in *The Guardian, The London Observer, The New York Times Book Review,* and *The New Yorker*. While *The Name of the Rose* received seemingly unanimously positive responses, several of his later works received mixed reviews. *The New York Times* commemorative essay acknowledges that despite his ability to successfully publish in both categories, Eco received criticism for "lacking either scholarly gravitas or novelistic talent" (Kandell, par. 9). Peter Bondanella indicates that many critics viewed his transition to fiction novels as a "step backward," as the failed promise of semiotics as a theory of culture (96). Bondanella, however, offers a contrary interpretation. He contends that, although this move to literature consumed much of Eco's writing and work, it did not "eliminate" his role as theorist

and philosopher (96). In fact, he understood Eco's literature as an embrace of his theoretical work portrayed in practical application, a task that was both "daring and successful" (96). By the time of Bondanella's 1997 intellectual biography, Eco had only published his first three novels: *The Name of the Rose, Foucault's Pendulum,* and *The Island of the Day Before*. Bondanella addresses the influence of each of these novels, arguing that they culminate from his work in cultural aesthetics and semiotics. Bondanella acknowledges that with the publication of *The Name of Rose*, Eco secured international fame, selling tens of millions of copies, prompting over thirty translations, and leading to a film adaptation directed by Jacques Annaud and starring Sean Connery, <sup>40</sup> Christian Slater, and F. Murray Abraham. <sup>41</sup> This bestselling novel transformed Eco's career, attracting an audience that encompassed both popular readers and a subset of scholars. Eco's work as a novelist occurred concurrently to his continued academic study centered on the central theme of interpretation and semiotics.

Written simultaneously to *The Role of Reader*, Eco implemented the well-known distinction between the Model Reader and empirical readers<sup>42</sup> in the descriptive material on *The Name of the Rose*'s Italian cover. Here, Eco reviews the various types of readers who will encounter his novel. He announces his refusal to comment on the book's meaning and concludes (writing in third person): "If he has written a novel, it is because he has discovered, upon

<sup>&</sup>lt;sup>40</sup> Note that Sean Connery was the first actor to portray the fictional character, James Bond in seven films spanning from 1962 until 1983. Eco was an avid reader of Ian Fleming's James Bond series. Eco edited a collection of essays on Bond with one authored by him in 1966. In 1982, the essay appeared in English.

<sup>&</sup>lt;sup>41</sup> Abraham's performance in *The Name of the Rose* directly followed his Oscar-winning role in *Amadeus* in 1985.

<sup>&</sup>lt;sup>42</sup> As Eco describes, in *The Role of the Reader*, every text anticipates a Model Reader that would understand and accept the rules established by the text; for the author, the Model Reader is a representation of who might encounter and engage the text. Contrarily, empirical readers are those who pick up a book and read it, those who may or may not see in the text what the author intended, and who may or may not accept the rules presented by the text.

reaching maturity, that those things about which we cannot theorize, we must narrate" (as cited by Bondanella 95). For Bondanella, this pronouncement, which alludes to philosopher Ludwig Wittgenstein, indicated Eco's purpose as a novelist—to join philosophy and application in story form, where theory takes on the guise of narrative and narrative reveals the insights of theory (95).

As Bondanella reviews the dust jacket materials for the novel, he contextualizes its historical moment as indicated in Eco's postscript. Eco began writing *The Name of the Rose* in March 1978, concurrent to an event that marked the history of Italy. On March 16, 1978, members for the Italian radical far-left organization, the Red Brigades, kidnapped Aldo Moro, the then leader of the Christian Democratic Party and Prime Minister of Italy from 1963 to 1968 and again from 1974 until 1976. The Red Brigade later murdered Moro on May 9, 1978. Bondanella explains Moro's role in establishing an "opening to the left" and negotiating between Christian Democrats and the Communist Party as mediated through Enrico Berlinguer (1922–1984). Bondanella explains that many often overlook the influence of Moro's kidnapping and assassination on Eco's writing *The Name of the Rose* as well as allusions to the growing Cold War tensions (96–97).

Eco recognized that not all readers would understand the historical context tied to the Italian political events of the late-1970s or the rising Cold War tensions that influenced the novel's content. Those readers, however, could still follow the plot. The story successfully opened the novel to a breadth of possible audiences. Bondanella contends that Eco wrote *The Name of the Rose* as a "postmodernist manifesto" (99) that demonstrates how novels can incorporate historical and cultural influences, philosophical themes, and widespread appeal to different audiences. For Bondanella, Eco's ability to successfully embrace multiple audiences

represent his postmodern writing, uniting themes across divergent historical moments and illustrating the practical consequences of theory and philosophy.

Scholarly debate, however, surrounds the postmodern label. For instance, Milda Danytė argues against this label, contending that while perhaps not garnering the title "post postmodern," Eco points toward "a new kind of historical fiction," not modern and not postmodern (40). Lois Parkinson Zamora, <sup>43</sup> conversely, argues that Eco's postmodern tendencies do not emerge until Eco's second novel, *Foucault's Pendulum* (329). Zamora explains that Eco utilizes a modernist structure with "causal progress, and explanatory relations" (329) in *The Name of the Rose*. Contrarily, in *Foucault's Pendulum*, readers encounter a story without a universal base code, undisputed truth, or a conclusion with clear and certain meaning (330). For Zamora, Eco's postmodern literary style emerges with *Foucault's Pendulum* and becomes even more apparent in his Baroque era narrative, *The Island of the Day Before* (347).

Both Bondanella and Zamora discuss the implications of these insights as they connect to Joyce. While Bondanella distinguishes Joyce and Eco based upon the latter's postmodern textual engagement and the former's modernist strategies (99), Zamora argues that Eco, like Joyce, moves from a modernist approach (in *The Name of the Rose* and *Ulysses*) to a postmodern framework (in *Foucault's Pendulum* and *Finnegans Wake*) (330). Bondanella and Zamora concur, however, on the medieval literary engagement characteristic of Eco's novels. Bondanella frames the medieval sentiment as a forerunner to his postmodern commitment (97–98), and Zamora indicates Eco's tendency to place his reader in an ever-shifting spectrum of medieval

<sup>&</sup>lt;sup>43</sup> Lois Parkinson Zamora is a leading scholar in comparative literature, with particular focus on US and Latin American fiction. She is the author of three books that address the intersections of literature and culture.

and contemporary contexts that mirror the hypertextual and encyclopedic world represented by both Eco and Joyce (331–334).

Rocco Capozzi frames Eco's novels as *hypertexts* with "epistemological and heuristic" merit (387). He argues that with each novel, Eco "reelaborate[s]" his semiotic theory and cultural aesthetics integrating the value of popular and mass culture, philosophical and historical insight, intertextual and hypertextual practices, and openness of interpretive meaning (387). As hypertexts, Capozzi adheres to the postmodern interpretation advanced by Bondanella (402). Capozzi celebrates Eco's ability to blend and unite theory and application in the construction of narrative worlds that, like ours, appear as labyrinths, webs, and encyclopedias of hypertextual cultural codes, signs, and texts. The pleasure in reading Eco novels stems from their hypertextual quality, which pushes readers to embark on a journey into their own libraries. In this manner, Eco offers *(pre)texts*, sources that tell us "something more (and something else)" (402–403). Capozzi explains that Eco's novels are rich with seeds of possibilities that connect one text to another. The "satisfaction" of reading the novel emerges from the unforeseen and unexpected insights that produce understanding and meaning (402). For Capozzi, Eco's hypertextual engagement defines his literary endeavors.

Eco's novels portray hypertextual characters, simultaneously existing across historical moments, cultures, and texts (108). Bondanella points toward an October 15, 1980 interview between Eco and *La Repubblica* where he stated: "It is my ambition that nothing in my book be by me but only texts already written" (qtd in Bondanella 99). Eco's intertextual and hypertextual strategies enrich the interpretive possibilities of the work. For instance, through intertextuality, William of Baskerville connects to Sir Arthur Conan Doyle's Sherlock Holmes in *The Hound of Baskervilles*; through hypertextuality, the character simultaneously alludes to William of

Ockham, a philosopher contemporary to the novel's setting who offers the problem solving strategy known as Ockham's razor. Again, Eco does not expect each reader to recognize all of these possible exchanges. Various readers will recognize different meanings from the text based upon their shared competencies in encyclopedic knowledge.

These textual strategies appear in each of Eco's novels as they exemplify and elicit meaning through encyclopedic knowledge without allowing presumptions of correct interpretation. Bondanella contends that Eco's second novel, *Foucault's Pendulum*, calls for more encyclopedic knowledge from its readers than *The Name of the Rose* (135). He interprets *Foucault's Pendulum* as an attack on proclamations of correct interpretation, which the novel portrays "as bordering on the insane or the paranoid" (143). The novel, for Bondanella, announces "the mishaps" that ensue under such misassumptions about interpretation (146). While *The Name of the Rose* is "a book about other books," *Foucault's Pendulum* is about "theories of interpretation" (Bondanella 184). *Foucault's Pendulum* did not receive the unwavering favorable reviews that Eco's first novel garnered, but it remained a bestseller and, according to Bondanella, advanced the "philosophical potential of fiction" (153). Interpretation defines the human condition as we search for meaning in the jumbled connections that construct the encyclopedia of existence.

Bondanella argues that with Eco's third novel, *The Island of the Day Before*, he returns to the impulses of *The Name of the Rose*, away from a discussion of interpretation in *Foucault's Pendulum* (184). Bondanella explains that *The Island of the Day Before* most clearly announced Eco's postmodern literary form (184). This postmodern approach influenced the novel's critical response, garnering neutral or negative reviews from Italian critics and more positive reviews in the United States, from an audience "more sensitive" to his postmodern literary practices (191).

The Model Reader for this work as well as his two earlier novels requires access to extensive, intertextual, and hypertextual encyclopedic knowledge that open possibilities for interpretation and meaning.

Michael Caesar identifies Eco's concern with texts as a central component to understanding his literary practices. Caesar explains how Eco considered texts to prompt the construction of both readers and textual worlds (134–135). Through his examination, he offers a "meta-textual" consideration of Eco's first three fiction texts, the only three available at the time of Caesar's important analysis of openness in Eco's project. Within these texts, Caesar announces the limits of interpretation governed by textual constraints and re-emphasizes Eco's contention in *The Open Work* that interpretation occurs between readers and texts (rather than instilled within texts, readers, or authors) (149–151). The literary praxis articulated throughout this secondary scholarship contextualizes each of Eco's novels, including *Mysterious Flame*.

As *Mysterious Flame* recounts Yambo's journey to find once more his identity and the embodied meaning of cultural artifacts, Eco considers the meaning-oriented implications of personal and public memory. This condition, although rare, is an actual memory disorder. Oliver Sacks, in an article from *The New Yorker*, recounts a similar ailment suffered by the English musician and musicologist, Clive Wearing, who in his mid-forties acquired a brain infection (herpes encephalitis) that, like Yambo, left him without recollection of personal experiences and only retaining encyclopedic, cultural knowledge. From the effects of this condition, Eco announces the meaning held within collections of cultural artifacts, both popular and avantgarde—alluding to both the codes that form culture and the embodied experiences that make meaning for human interpreters.

Communication scholars begin to point toward the implications of this novel for human engagement (Arnett, DeIuliis, Mancino; Gumpert, "Looking"; Radford, "Mysterious"). In 2007, Gary Gumpert addressed *Mysterious Flame* with an emphasis on "reconstruction" ("Looking" 170). His goal was to inspire and motivate a return to the artifacts that recount the discipline of communication, to reconstruct the identity of a field of study, so that the ideas, scholars, and work of those who came before us will be "passed on" rather than "passed by" (170). Thus, Gumpert calls communication scholars to embark on a journey akin to Yambo, searching through paper memory, returning to the artifacts of the past so that they may continue to yield scholarly insight today.

In 2015, Ronald C. Arnett, David DeIuliis, and Susan Mancino discuss *Mysterious Flame* as a novel that exemplifies both hypertextuality and existential semiotics. In this manner, the novel provides a corrective to Euro Tarasti's work by announcing "the signifying function of communication in the presence of the ineffable" (3). The novel portrays interpretation as an "ongoing temporal response to existence" that dynamically changes across time, space, culture, standpoint, etc. (16). They acknowledge the novel's depiction of a character trapped in isolated portrayals of dimensions of communication and signification—of "a code with no signs, then signs with no code" (17). Like Capozzi's commitment to Eco's hypertexts, Arnett, DeIuliis, and Mancino frame the novel as "an enigma wrapped in hypertextuality" (18), requiring consideration of signs, codes, and the performative enactment of interpretive response.

Then in 2017, Gary P. Radford offers a reflective essay entitled, "The Mysterious Flame of Umberto Eco." The essay recounts Radford's experience responding to a panel of top papers in semiotics at the National Communication Association convention in Boston, MA, in 2005, the same year *Mysterious Flame* became available to English audiences. For Radford, Eco's notion

of mysterious flames shaped his response to colleagues and content. Specially, Radford recalls his response to Isaac E. Catt, with mysterious flames emerging from his memories of classes with Richard L. Lanigan in the early 1980s at Southern Illinois University. He compares his experience with that of Yambo and with Eco's motivation and inspiration in choosing the novels title—a comic book, whose title Eco recalled but whose story he could not remember (304). Radford reflects that, as he encountered the content, his task was "to understand and articulate my mysterious flames" in a manner that both him and his audience could comprehend (305). Radford associates his encounters with a sense of anxiety, frustration, and anticipation (302– 305). He compares mysterious flames and approaching new texts as similar to "opening a present on Christmas morning"—an experience one confronts when encountering something unknown, without knowledge of its influence or future impact (305). Radford explains that his response, framed according to his interpretation of Mysterious Flame in 2005, would have changed if he had responded a few years later or prior. Interpretation is without end throughout one's lifespan, only ceasing at death (or thus, when interpretation concludes). For this reason, Radford announces death as a crucial aspect of Yambo's experience regaining his memory and identity (308). Interpretation is temporal, actively responsive to the shifting circumstances of historical and cultural contexts.

Together, these review essays and critical responses announce the importance of Eco's literary venture as an applied product made meaningful by his philosophical literacy and theoretical interests. In his novels, Eco adapted the highly technical language of his interpretive semiotic theory and the rich intellectual conversation recorded in his cultural aesthetics into story form. Thus, he was able to reach a wide audience, securing his international reputation as a public intellectual and popularizing semiotic theory with an emphasis on culture and

interpretation. Furthermore, *Mysterious Flame* represents his literary praxis with a story emphasizing a man's journey, navigating the fog of lost personal memories guided by full knowledge of cultural conventions, literature, poetry, and historical facts. I now turn to an exemplification of the hypertextual value of encyclopedic knowledge actualized by the codes of signification and the limits of its consequential influence when accessed without the human labor of communication; this commitment characterizes Eco's fifth novel, *Mysterious Flame*, in its literary praxis and integration of lists.

### 5.2 The Mysterious Flame of Queen Loana

Eco published *La Misteriosa Fiamma della Regina Loana* in 2004 with the Italian publisher Bompiani. By spring 2005, an English translation appeared by Geoffrey Brock with Harcourt Press, which received the Lewis Galantière Translation Award from the American Translators Association. Eco worked with Bompiani and Harcourt when publishing each of his novels. The title, *The Mysterious Flame of Queen Loana*, refers to an Italian edition of the American comic strip *Tim Tyler's Luck*. The comic appeared in the United States in 1934 and in Italy the following year. The novel occurs in three parts, consisting of eighteen chapters. Illustrations accompany the novel's story with images, lyrics, and excerpts interspersed throughout the story. In this manner, the novel consists of a collection of images followed by a citation list that indicates each item's source. These illustrations include the comic book cover that inspired the novel's title, drawings completed by Eco, various images emerging from Eco's own collections, and collages designed by Eco. This summary tells the story of *Mysterious Flame* organized by its three parts.

#### 5.2.1 Part 1: The Incident

The novel commences with a man, unable to remember his name, unsure of where he is or what happened to him. This man is the novel's main character, Yambo (Giambattista Bodoni), who wakes from a coma after a stroke that has left him in a "fog" (3). We learn that Yambo suffered a stroke that caused him to lose his episodic memory, the type of memory that builds upon the sum of our experiences to shape identity today grounded in where we have been and what we work to become. In short, episodic memory allows you to recall and make sense of the "episodes of your life" (13). Dr. Gratarolo, Yambo's physician, explains, however, that the stroke had no effect on Yambo's short-term memory, implicit memory, or semantic/public memory. Yambo could recall all of the information that he read in books, learned in school, heard on the radio but had no recollection of encountering these artifacts.

Yambo quotes passages he had read at one point or another, but just as the doctor indicated, he does not know when or why, who introduced the passage to him, or how he felt upon first encountering the words. Yambo remembers literature, history, and popular culture with precision and clarity, but his family and his friends are strangers. Memory of embodied experiences is absent. When shown a picture of his parents, he feels a pull in his stomach but cannot identify them. When Yambo leaves the hospital with his wife Paola, he cannot remember her; she is a new acquaintance.

As they drive through Milan on their way to a once-home but now unfamiliar apartment, Yambo can identify landmarks even though he feels that he has never visited the city in which he lives. Yambo explains that without knowledge of who he was, what he has done, and where he has been, he has no direction of where to go. Paola concurs, indicating "knowing what Julius Caesar did doesn't help you figure out what you yourself should do" (29). Yambo's frustration at his condition disrupts the conversation. When they arrive, Paola provides a tour of an apartment

that sparks no connection or memory for Yambo. He observes antique furniture, balconies overlooking the trees in the parks, and bookshelves lined with approximately 5,000 titles—only the books provide a sense of comfort. Passages from the texts flood Yambo's mind without conscious command; he notices a common recurrence of the metaphor of fog—the sense that seems to cloud his memory and thoughts. Paola informs Yambo of his long-time fascination with fog since his childhood; it was a theme he took note of throughout his reading, a practice with signifying power for Paola but foreign to Yambo (29–32).

Paola recounts the facts of Yambo's past—his childhood home in the Solara countryside, his grandfather who was a great collector of books, his parents who died in a car accident at the end of his high school years, his younger sister Ada, his children, his grandchildren. The places, the people, the memories are new to Yambo—he is trapped in a life lived but not remembered. Yambo's lifelong friend, Gianni Laivelli, arrives for a visit. They discuss his career as an antiquarian bookseller and Gianni's memories from their youth. Yambo spends time with Gianni, his wife, his children, his grandchild, and encounters a women with whom he had an affair—all appear as strangers. Gianni mentions the "beautiful Sibilla;" the reference catches Yambo's curiosity, but they do not discuss it further (39). Later, Yambo learns that Sibilla is his assistant; Paola is incredibly complementary of her. When Yambo returns to his antiquarian bookshop, he meets Sibilla with a forced formality. As she updates Yambo about the shop, he wonders whether they too had an affair, whether she was the woman of his dreams. Sibilla preoccupies Yambo's thoughts. Yambo asks Gianni for further details. Gianni explains that Yambo had many affairs—too many—but that Sibilla was the "ice sphinx" (56); he knew nothing of an affair.

At the bookshop, Sibilla informs him of about a book enthusiast's widow who is looking to sell her late husband's collection. After visiting the widow's home, Sibilla and Yambo secure

a sale—thirty million lire for ten books (59). The visit exhausts Yambo, and Sibilla continues to consume his thoughts. When he returns home, he speculates his collection of quotations about fog. Yambo's family shows him photos. None bring forth memories, but culture, history, literature, and music remain solid in his mind. Yambo sings in the morning as he brews coffee, a pre-stroke routine according to Paola. One day, when he begins singing "Sola me ne vò per la città," Yambo begins to cry. He experiences the same sensation he felt in the hospital when shown a photograph of his parents. Yambo describes it as "a mysterious flame"—an inner feeling, never experienced before, as if we could make contact with someone from a fourth dimension (67).

Later in the day, Paola and Yambo visit a street market. Yambo purchases comics from the era of his youth. He spends his evening looking at the comics; none ignite mysterious flames. Yambo describes his memory as "paper" (72). Paola equates Yambo to Zasetsky from *The Man with a Shattered World*, who suffered brain injuries during WWII and experienced amnesia. Paulo suggests that Yambo spend time at his childhood home in Solara where he can construct the paper memory of his youth. Yambo hesitates, at first, until Sibilla informs him of her engagement. Immediately, Yambo feels he must escape her and follows his wife's advice to return to Solara. His daughter Nicoletta travels there with him. During the journey, Yambo finds hope in his ability to remember the towns in order from the train station to the country home.

#### 5.2.2 Part 2: Paper Memory

Shortly after arriving in Solara, Yambo learns that he had vowed to never return; he does not know why. The home sparks a feeling of being at home (82). Yambo meets Amalia as if for the first time even though she acted as his older sister and nanny during his childhood. She was the daughter of a tenet farmer who worked on the land. Nicoletta leaves her father with Amalia,

who shows Yambo where he will be staying. Before Yambo falls asleep, he experiences another mysterious flame when he witnesses a white owl flying into the night (88). In the middle of the night, Yambo wakes with sharp chest pains. He, at first, believes that he is having a heart attack but realizes that he had just eaten too much.

During the next day, Yambo walks into the village and later receives the keys from

Amalia to explore the central wing of the house. Yambo investigates the locked rooms, carefully observing their contents. In one room, a wardrobe prompts another mysterious flame (96). He searches the rooms like a detective, abductively engaging the meaning and significance of what he encounters (98). Yambo identifies his parents' bedroom, the room where he was born. The empty bookshelves strike him as odd considering his grandfather was an avid book collector.

When he enters his childhood bedroom, a mysterious flame arises at the sight of a film poster from his youth. Like his recollections of books, comics, and songs, Yambo remembers the plot of the film, but he also exclaims, it was "the funniest picture show I ever saw" (102). Much like Yambo's observations about the empty shelves, he notices no toys in his childhood room.

Frustrated that his toys and his grandfather's book have disappeared, he calls to Amalia, who explains that his aunt and uncle had moved the materials to the attic.

Yambo saves the attic for another day. He returns to his grandfather's study to examine old French magazines that prompt "a fluttering nostalgia for the present" (104). The French models resembled Sibilla, and he realized that he was not only in search for reasons why he left Solara but also to understand where these paths had taken him (107). Yambo spends the rest of the evening reading books, rapidly shifting his attention from one to the next. He spent eight days reading in a "wild, disorderly fashion" (117). Yambo began to gain a new outlook as the artifacts in the fog of his childhood became present. He frequently experienced fleeting

mysterious flames, but Yambo found them "pointless" since they disappeared as quickly as they arrived (117).

Yambo decides to enter the attic. Yambo rereads Sherlock Holmes, *Treasure Island*, and the fascist texts of his youth—the works brought forth further memories of words. Then, when Yambo encountered his grandfather's Christmas nativity, he recalled an image (156). Yambo met these texts out of order and concurrently. Yambo realized this strategy would not effectively reconstruct his memory. He would need time to understand how the texts build upon, inform, and revise the insights of the next. He felt "dazed" and "intoxicated" by the documents (157). He decided that he would need his school notebooks as guides to contextualize the paper memory held in the attic.

After exiting the attic, Yambo visits a pharmacist, discovering that his blood pressure is high. Yambo informs his doctor that his work in Solara cause him to exert strenuous activity moving crates, that some texts prompt a rapid increase in his heart rate, and that he has been drinking and smoking (159). Paola and his children's families arrive to check on him. Yambo tells his grandchildren about the stories he had been reading in the attic. He tells the stories as if they happened to him personally; Paola fears that Yambo borrowed others' memories to replace those he lost (163). After the family departs, Yambo devotes his attention to the radio in his grandfather's study. Gianni visits Yambo and recounts his own memories of the radio. Yambo interrupts Gianni, afraid that his friend's stories will "pollute" the "tabula rasa" for his memories (167). Yambo spent time listening to records when a distant sound disrupted him; without reflection, he proclaimed, "It's Pipetto!" (177). He does not know who or what Pipetto is, but he repeats the phrase from the muscle memory of his lips (177).

Yambo returns to the attic to find his school papers. He finds a box marked "Elementary and Middle Yambo"; its contents would have spanned from 1937 until 1945 so he also gathered materials labeled "War," "1940s," and "Fascism" (178–179). Yambo adopts "the historian's method," hoping to situate texts cross-referenced with its corresponding events and artifacts (179). As he read the notes from a particular year, he would play a record and read newspaper stories from that same year (179). Yambo emphasizes the phenomenological and embodied importance of encountering information with situated attentiveness.

He found books advocating Fascism and expected to find newspapers offering a similar sentiment, but instead, he learned that the grandfather who he could not remember attempted to teach him "how to read between the lines" (179). His grandfather's papers contained accounts from the Radio London news alongside the official news of Italy. In the midst of these papers, he stumbled upon a character named Pippo; he wondered if there was a connection to the mysterious Pipetto for nights earlier. A misleading description of fog soon diverts his attention.

In a first grade schoolbook, he found a passage portraying fog as "inevitable, but undesirable" (184). Yambo found this odd considering his later obsession with fog that now consumed many of the quotes that filled his mind. As he continues searching, he finds Fascist messages that caused him to question his own experience during the war (195)—how did he, as a child, made sense of this propaganda? Yambo describes this era as a "cult of horror" (207). He witnesses divergent messages of optimism and war, still unsure of where he fell (205). In a fifth grade notebook, he reads his response to a prompt containing a quote from Mussolini that echoes Fascist clichés (207).

Later in his middle school books, Yambo witnesses a shift away from prompts to "Chronicles" that told accounts of his own life. One written nine months after his response to the

Mussolini quote includes a simple story titled, "The Unbreakable Glass." It told of a glass that remained intact no matter how many times Yambo dropped it; one day, when his parents had guests, Yambo decided to exhibit the seemingly indestructible glass, but this time, it shattered. It was "a story of defeat on all fronts" (210); there was humiliation and waste of family finances. His "Chronicles" were marked by "pessimism," "disillusionment," and "sarcastic, disenchanted wisdom" (210–211). Yambo recognizes a change in his former self but is unable to remember or identify why or when. Yambo's investigations leave him confused. He calls Paola, who reassures him that children are able to distinguish reality from fantasy, that at times they are manipulative, and that he wrote his assignments to please his teachers. Paola eases his concerns.

The windows of the house intrigue Yambo; they do not match the house's interior construction. Amalia explains the windows; initially, he accepts her response. Upon further consideration, however, Yambo realizes that Amalia is not accurate. He presses further to discover that she had promised his grandfather to never tell anyone (219). After much convincing (in regard to his health, his property rights, and his descent), Amalia reveals that there was once a chapel held within the house, built by Yambo's great-uncle before his grandfather owned the property. Yambo's grandfather, however, let the chapel deteriorate and eventually closed off its entrance after one night while Yambo, his mother, and sister were away visiting family. On this night, his grandfather learned of four boys who needed to escape the Fascist Black Brigades. Yambo's grandfather allowed them to hide in the chapel and permanently closed off its entrance by the time that the Black Brigade arrived to search the house; they examined it quickly, expecting to find the boys in a farm home.

Yambo, however, cannot conceive how they escaped or even ate. Amalia has no answer. He decides there must be an entrance from the attic, and sure enough, he finds a trap door and

enters the chapel. The chapel appeared untouched since his childhood; he referred to the chapel as "Time's Temple," a place that allowed him to span across decades (226). Yambo explores the chapel, spending a significant amount of time with his comic books. The character, Romano the Legionnaire, affects him most powerfully (231), which he was able to correspond with the real world events reported in newspapers. He found a collection of Topolino (or Mickey Mouse) comics, a character who vanished as the American reputation in Italy worsened. Yambo observes connections between the comics, world events, and Fascist messages. The comics bring mysterious flames that blur together. It feels "like coming home, after a long journey, to someone else's house" (245). Relentlessly, he searches for hints of himself. When he stumbles upon a copy of *The Mysterious Flame of Queen Loana*, he feels a strong connection and hopes it can provide meaning to his "reawakenings" (251). He reads the story of a mysterious flame of immortality that extinguishes at the story's conclusion. He finds the story "insipid" and "dumb" (251–253), deciding that the title must have been the source of meaning.

Yambo moves from his comics to his stamp collection, finding two that brought forth the sensation of mysterious flames. Both stamps were from Fiji and both brought forth the reminder of Pipetto, this time with a song he listened to days earlier, "Up There at Capocabana" (256). Each time he encountered something he found potentially meaningful, he would turn to find a cliff. This revelation produced another spontaneous proclamation—"like the Gorge" (256). Amalia told him about the Gorge leading to San Martino, visible from his bedroom window. As a child, Yambo would travel along the Gorge with his friends feuding with the neighboring kids (259).

Unexpectedly, Yambo receives a package from Sibilla, containing catalogue proofs.

Among them, he spots a copy of Shakespeare's First Folio. Its worth and rarity compares to the

original Gutenberg Bible; it is every book collectors "number two dream" (261). He quickly phones Sibilla, who pretends that she already sold the volume not recognizing its value. Sibilla's "innocent joke" could have cost Yambo "the big one" (262). After talking to Sibilla, he returns to the attic.

Back in the attic, Yambo finds a box of letters addressed to his grandfather that construct a portrait of this man. One of the letters alludes to a bottle, congratulating him on his victory. Only then did Yambo recognize a small medicine or perfume bottle, sitting atop of a shelf. He inquires with Amalia, who explains that his grandfather was a journalist for a socialist newspaper. In 1922, a member of the Fascist militia attacked him, forcing him to drink caster oil. After this incident, his grandfather gave up journalism and became a bookseller. Among his attackers, however, he recognized a man named Merlo. Yambo's grandfather kept track of Merlo's whereabouts through the war, and when it ended, he arrived at Merlo's home with a bottle filled with caster oil. Yambo's grandfather, along with two of his friends, forced Merlo to drink the bottle. Amalia explains Yambo's excitement and celebration as he heard of the story as a child.

Yambo returns to the attic; he finds no comics published between 1943 and the war's end in 1945. He reflects on the information he gathered from his youth; he realizes that everyone from his generation experienced the same paper memory, but it is not *his*. The artifacts found in the attic were merely the cultural products of a particular era. Only the story of the unbreakable glass and the anecdote about the medicine bottle contain traces of him. Yambo listens to music as he contemplates the implications of this realization and remembers three unopened boxes remained in the attic.

The first box contained photographs from his childhood; none ignited a mysterious flame. The only photo that truly moved him was a snapshot of him with his sister, but there was no spark of memory. The second box contained holy, prayer cards and religious pamphlets—again, no mysterious flame. In the third and final box, he found materials created by him—annotated radio program guides, notebooks from high school, and a few poems from college. Yambo describes the poetry as "pathetically obvious," and as a poet, he refers to himself as "a hack" (279). Some poems addressed themes of memory and others love. The poems brought no mysterious flames, but he is able to anticipate some of the lines (282). His poems contained meticulous detailed, indicating that their subject could not have been fictional. He calls Gianni to learn more.

Hesitantly, Gianni tells Yambo about his high school love, Lila Saba—how he learned her name, how he worked to increase their minimal interaction, and about her sudden departure from Solara. Although Yambo and Lila Saba never had a relationship and he shared two serious girlfriends before Paola, Gianni framed Yambo's life as a quest for Lila Siba. In fact, a few months earlier, news about her prompted his stroke when Gianni informed him that she died shortly after graduation and that her real name was Sibilla. Yambo desperately searches for Lila Saba's face and finds it unfair that Gianni can recall her when he cannot (294). It is time for Yambo to depart Solara, but before he does, he takes one final trip to the attic, only to finds one final unopened box full of books. He finds most of the box uninteresting until he uncovers, at the bottom of the box, Shakespeare's First Folio. The excitement of his discovery prompted Yambo's second stroke.

5.2.3 Part 3: OI NOΣTOI<sup>44</sup>

<sup>&</sup>lt;sup>44</sup> This subtitle for the third section of *Mysterious Flame* translates from Greek as "Others."

Yambo enters a second fog—one experienced by him rather than described by others. He sees silhouettes and depicts characters emerging from a wardrobe; they disappeared as quickly as they arrived. Yambo recognizes them from his childhood fevers. Most prominently, he identifies his Uncle Gaetano, a nice man who he met on the street as a child. Yambo never understood why he haunted him (304). As images continue to emerge from the wardrobe, Yambo explains, "I have regained my memory. Except that now—when it rains it pours—my memories are wheeling around me like bats" (305). He recalls his father reading to him at his bedside, worrying about father's safety during city bombings, and his father's hard work to purchase the car where he would eventually die (306).

Yambo notes that he cannot remember where he was when he entered this fog and can sense nothing beyond himself—not even his body. He feels as if he is "floating in nothingness and gliding toward abysses that call out to the Abyss" (307). He considers, perhaps, Amalia drugged his soup. Perhaps, he is alive buried in a tomb. Perhaps, he experiences an afterlife that continually replays life. Perhaps, he is in a deep coma with machines that are unable to pick up his most interior brain activity. He worries that Paola, Nicoletta, and Carla are suffering as they watch him in the coma. He wonders what will happen if he stops thinking, but instead decides to embrace this state of memory.

He remembers running errands with his mother as a child on the day that his sister Ana was born. He recalls his cousin playing roughly with his stuffed bear and remembers all of times he and his sister played with the bear but wonders why he cannot see Lila's face. He cannot demand memories to appear; they come as they please in their own order. Memories of Christmas morning come to him, followed by experiences in the air raid shelter in the middle of the night. He remembers his parents telling him to recite messages that show support for Italy.

He remembers a classmate named Bruno, who crawled about the classroom after receiving a charity collection when his father died. He also remembers Bruno's rebellion to Fascist propaganda, proclaiming "Pierre" rather than "I swear" after the mandatory oath (322). Bruno taught Yambo what it meant to revolt.

Yambo still cannot picture Lila's face; he must wait until the memory reveals itself. His earliest memories depict him playing with a doll and receiving a fig from a neighbor; his most recent memory was uncovering the Folio. He remembers the smell of his grandfather, playing marbles, and meeting Jewish workers. He decides that he has entered a coma; he wishes he could telepathically send Paola a message. He remembers an anarchist man named, Gragnola, who gave Yambo the stamps from Fiji. He talked with Gragnola about books, authors, religion, evil, free will, freedom, and faith. Gragnola argues that God is Fascist and evil. Yambo remembers wishing he could talk with his grandfather about these ideas but refrains.

He recalls his many trips to the Gorge to torment the kids in San Martino, who quickly learn to watch for Yambo and his friends. Germans arrive in the area, capturing eight Cossacks in San Martino. Gragnola has the idea to save them through the Gorge; Yambo acts as the leader. He sneaks out at night as the guide through the Gorge. After they meet the eight Cossacks and begin their journey back to Solara, they take two German prisoners with them. Search dogs tracked the scent of their helmets. The prisoners slowed their descent down the Gorge with Germans close on their trail. Gragnola decides that the only escape is to insure that they do not cross paths with Germans. Gragnola kills the prisoners, pushing them down the Gorge in opposite directions. Although Yambo does not commit the act, he feels deeply guilty. Gragnola assures him that it was the only option. The next morning, Yambo discovers that members of the Black Brigades captured Gragnola, who killed himself for fear that he might divulge information

that would harm his friends (375–376). Shortly after, the war concludes with celebrations in the street. Yambo loses the courage to confess what happened to the German captives.

Yambo misses Solara. He considers the aftermath of the war within pop culture. He remembers a visit from his cousin, who his sister called Cousin My-Eye. They attended a soccer game with his father that causes him to question the existence of God. He believes that he is "educating himself for his encounter with Lila" (405). He compares his experience with Lila to the French play, *Cyrano de Bergerac*, by Edmond Rostand. He yearns to see Lila Saba's face (408). Yambo started to recount memories of Lila. He remembers writing the poems. He remembers her boyfriend, Vanni. He remembers Lila at school plays. He remembers that he viewed Lila as hope to forget the tragic events at the Gorge. All these memories, however, lack the image of her face. He questions whether he experiences memories or just merely dreams. Frustrated, he cannot understand why his memory hides Lila's face from him.

More characters from comics and novels emerge. He senses that Lila is about to appear. He will finally see face; Yambo will finally be at peace. He knows that he must seize this opportunity. As she approaches, Yambo feels a cold gust and looks up to see the sun turn black (449). The novel concludes with allusions to death—an event that escapes the semiotic realm, bringing with it knowledge of all and simultaneously the conclusion of one's ability to signify its meaning.<sup>45</sup>

In short, *Mysterious Flame* pivots with the sign of Sibilla. Part 1, *The Incident*, introduces a man, born again at fifty-nine years old, void of past personal memories but nonetheless socialized into Italian culture of the 1990s. He can remember the cultural artifacts that

<sup>&</sup>lt;sup>45</sup> For more information on Eco's description of death as an event unalterable by the semiotician that reveals meaning and inhibits one's ability to signify, *A Theory of Semiotics* (66) and *The Island of the Day Before* (208).

surrounded his youth in the 1930s and 1940s but not the events that happened to him. As he learns about his adult life, he becomes infatuated with Sibilla, his assistant at his bookshop. When he learns of her engagement, Part 1 concludes with Yambo returning to his childhood home. Part 2, *Paper Memory*, describes Yambo's experience exploring the collections of his youth as a scavenger hunt, in search of his identity. Yambo encounters mysterious flames of memories without clarity of meaning. He discovers his youthful obsession with Sibilla (nicknamed Lila). Frustrated that the paper memory archived in Solara did not contained her photo, he decides to leave Solara, perhaps, to continue his search elsewhere. When bidding the home a final farewell, he finds a copy of Shakespeare's First Folio, the valuable and rare text that his assistant Sibilla used in a joke that nearly prompted stroke. Part 2 concludes with Yambo holding the valuable text in his hands now experiencing the stroke she had almost caused. Part 3, OI  $NO\Sigma TOI$  (a title translating from Greek to mean Others), contains the hypertextual emergence of Yambo's personal memory—playing with his sister as a child, worrying about his father's safety during the war, and talking with his grandfather. Memories emerge simultaneously as signs appear from a wardrobe. Yambo yearns to know Lila's face, but cannot call the sign forth. The novel culminates in Part 3, with a sign to end all signs, the face of Lila.

### **5.3 Reflective Responses**

While Eco refuses to comment on correct and wrong interpretations of his novels, he offers some reflective responses in essays such as the *Postscript to the Name of the Rose*, the compilation of essays titled *On Literature*, and interviews throughout the world. For instance, in a 1995 interview with *Vogue*, Eco acknowledges the philosophical underpinnings of his novels (Kandell). The in 2015 interview with the *Guardian* at a live event hosted by University College London after the publication of his final novel *Numero Zero*, Eco explained that as a philosopher

his interest is in truth, but because truth is such a difficult pursuit, his literary work pursues an "analysis of fakes" (Eco and Browne, par. 7). He emphasizes the powerful role of fakes in shaping public opinion about truth perceptions. Eco partook in two interviews in response to *Mysterious Flame*—one with its publisher, Harcourt, and a second with Michael Silverblatt<sup>46</sup> on *Bookworm*, a Los Angeles-based radio program.

First, in the interview with Harcourt books, Eco begins by commenting on the degree to which Yambo adopted Eco's own memories in *Mysterious Flame*. Eco explains that the cultural products encountered by Yambo corresponded to his own youth but that Yambo does not tell his autobiography. Instead, Eco sought to write "the biography of a generation" (par. 2). He gave Yambo memories that Eco did not experience, such as the events at the Gorge. Eco admits that the title came before the story (par. 6), a comic book title that Eco could remember without any knowledge of its story. Eco labeled the memory sensations as 'mysterious flames' (based upon the title) and the ambiguous landscape of the past as a fog. In preparation for the novel, Eco explored flea markets and used bookstores to re-collect the memorabilia of his childhood; he spent years searching for artifacts—discovering nothing, only recovering the artifacts of the past (par. 8). When the interviewer asked Eco how he felt about the "almost paperless" environment produced by the Internet (par. 9), he revealed another opinion. The Internet gave him access to artifacts, for instance, allowing him to reconstruct his stamp collection. Eco explains, the Internet does not always eliminate paper; "sometimes it can be a way to salvage it" (par. 10). This Harcourt interview contextualizes the overlap between Eco and Yambo and the cultural memorabilia and collections they shared.

<sup>&</sup>lt;sup>46</sup> Silverblatt was born on August 6, 1952 and has hosted the radio program *Bookworm* on Los Angeles, CA's public radio station, KCRW.

In his August 25, 2005 interview on *Bookworm* with Michael Silverblatt, Eco emphasizes the importance of collections rooted in the German Wunderkrammer (1:16-2:10). Eco illustrated the novel to emphasize Yambo's search for identity through the memorabilia of the past, including comic books, poems, magazines, songs, etc. (2:30–2:55). Eco explains that fog is a wonderful metaphor for memory loss and points toward his own birthplace where fog regularly appeared (just as it also signified Solara for Yambo). Eco and Silverblatt discuss Yambo as the opposite of what appears in Joyce or Proust; Yambo moves backward to his childhood to find where he lost himself in the encyclopedia of the world. This novel is Eco's confession that encyclopedic knowledge alone is not sufficient. They discuss the relevance (or irrelevance) of Yambo's adult life as well as the poetry of youth. Eco argues that he had to "sacrifice" his adult life to find the meaning of his identity as a byproduct for his encountering cultural collections. When Silverblatt includes the list of acknowledgements as part of the novel, Eco explains that it is possible to have a book more intelligent than its author—while this list responds to the "American frenzy" and obsession with meticulously quoting every reference and illusion included in a work (15:25–15:45), it also produces unforeseen knowledge for the reader.

In *Confessions of a Young Novelist*, Eco reflects on his career in literature, which will ultimately culminate with an appreciation for the meaningful possibilities that emerge from lists. While he argues that he became a novelist in his childhood, beginning with titles, then illustrations, and ending after the initial pages of the first chapter, Eco's official attempt at writing novels did not occur until he had successfully published essays on social commentary, theoretical work on cultural aesthetics, and academic manuscripts on semiotics. He wonders why we remember Homer as a creative writer but not Plato, identifying the distinction as a matter of interpretation (2). In theoretical pieces, one presents a thesis or responds to particular issue; in a

poem or novel, authors seek to portray the human condition and forfeit their ability to control correct interpretation (5). Eco appreciates literature's ability to represent what he calls the encyclopedic labyrinth of life in story-form. Eco insists that literature can provide insights and meaning outside the bounds of philosophy, science, or theory (6). Literature can present the controversies of life, letting readers determine paths of response without definitive directives.

Eco began working on *The Name of the Rose* in 1978, prompted by the encouragement of a friend, who worked for a publisher tasked with finding non-novelists to write brief detective stories (*Confessions* 7). Eco initially denied the request, saying he would not be able to create good dialogues. Later that day, he recovered a list he wrote a year earlier of names of monks; as he glanced over the list, he stumbled upon the plot's motivating theme—"poisoning a monk while he was reading a mysterious book" (8). With this list and an image, Eco, the novelist, emerged (8). When asked why he chose to write the novel, he offered various responses in interviews and essays—all true and all false (8). In *Confessions of a Young Novelist*, he clarifies that he simply "felt the urge to do it" and that was reason enough (8). Eco's response avoids psychologism and, instead, focuses on the practices that made him both novelist and philosopher/semiotician.

In response to another popular question—"How did you write your novels?"—his typical answer was "from left to right" (*Confessions* 8). Diverting from conventional responses of "inspiration," his reviewers argued that he uncovered a secret method made possible by computers and word processors. Eco indicates that these critics must have forgotten that in 1978 and 1979, personal computers were not a viable option for novelists (9–10). Finding these "computer allegations" offensive, Eco provides a translation of a satirical response in an Italian edited collection (10). The response begins with a computer, "an intelligent machine that thinks

for you," into which you program the contents of hundreds of texts (from novels to scientific works to telephone books), randomized and searchable; you then print the contents, use them as fuel for the incinerator, and write by the light of its fire (10–11). The algorithmic actions of computer programming cannot replace the human labor of communication that produces signs made meaningful in the codes of signification.

Eco explains that writing novels takes time. Because of his expertise in the Middle Ages, *The Name of the Rose* took only two years to complete. His doctoral work and experiences visiting monasteries, abbeys, and cathedrals amounted to years of research stored away, ready for inclusion in the novel. His other novels took longer: *Foucault's Pendulum* took eight years, *The Island of the Day Before* and *Baudolino* six years, and *Mysterious Flame* four years (*Confessions* 11). During the "pregnancy" of the novels, Eco prepared by gathering collections of documents and research, visiting settings that correspond with the novel's theme, sketching maps and character traits (12). *Mysterious Flame* took only four years because of his familiarity with its contexts and contents. The collections Yambo used to regain his memory came from Eco's own experience.

For Eco, novels begin with a seminal image around which the novel forms (for instance, the poisoned monk reading in *The Name of the Rose*) and following this image comes to the novel's style (for instance, in *The Name of the Rose*, a medieval chronicler) (*Confessions* 16–21). Next, the novel introduces and imposes constraints upon the text—including the historical moment, which indicates its temporal and geographic context (24–25). Finally, Eco incorporates the "postmodern feature" of double coding; a term coined by architect Charles Jencks (29). Double coding involves intertextuality as the text corresponds with other texts and a reflexive quality where the text speaks about itself (30). The simultaneous presence of these two

techniques allow for the dual appeal of high and popular culture. Double coding places "winks" within texts without losing readers who missed the allusions (31). In fact, these winks call the reader to return to the text with the hope that they may come to better understand it. These elements appear even in his novel's titles. For instance, the metaphor of rose in his first novel's title connects to an "infinite series of connotations" and the reference to Foucault in his second novel intentionally corresponds to Léon Foucault, who invented the pendulum, knowing that some would confuse it with Michel Foucault (52–53). These practices construct literary universes with characters that readers accept as real and serious.

Eco argues that readers approach the characters of novels as if they were "real human beings," which causes us to weep at their despair (*Confessions* 71). Eco alludes to Alexander Dumas's claim that which historians conjure up ghosts, while novelists produce flesh and blood (72). In novels, we enter fictional universe as if they are possible renditions of our own (73). They are "parasitic" on the human condition (81). These universes construct the textual constraints that elicit the reader and open possibilities for interpretation based upon readers' social competencies of encyclopedic cultural knowledge that allow readers to distinguish our knowledge about historical figures and fictional characters as textual artifacts (88). Historical and scientific determinations depend upon "external empirical legitimacy" whereas our knowledge of Anna Karenina's life and death are a matter of "internal textual legitimacy" (90). Encyclopedic knowledge of history and literature, fact and fiction, is open to revision as social competencies change regarding whether the world is flat, whether the sun revolves around the earth, or whether Pluto is a planet.

At times, fictional characters gain encyclopedic presence as "fluctuating' characters" (*Confessions* 96). Numerous characters produced by fiction exist outside the realm of their texts,

able to transport between and among texts, across centuries and millennia (96). These characters—Hamlet, Ebenezer Scrooge, Superman, Oedipus—gain cultural power beyond their original texts. Many who did not read the *Odyssey*, the Bible, Ian Fleming's James Bond novels, or the sources inspiring Little Red Riding Hood (Charles Perrault and the Brothers Grimm) are familiar with the characters, their trials, their appearances, their virtues, etc. Their cultural fluency is not a result of an inherent aesthetic quality but rather of repeated "extratextual avatar[s]" (98). These characters travel among us as "faithful life-companions" defined by their consistency and "unalterability" (114). As they exist alongside us, becoming part of our cultural environments, they gain ethical relevance.

Eco discusses the ethical significance of fictional characters, explaining that we read about Oedipus, Hamlet, and Anna Karenina wanting alternative outcomes, happy endings, that we could grant them by simply rewriting their stories. Ultimately, however, their fates remain, causing their readers to "shiver as we feel the finger of Destiny" (*Confessions* 118). Like us, these characters are unaware of the future that awaits them. Even what we can see coming so clearly, the characters run to "blindly" (118); the reader unable to alter their paths. We read about them with knowledge of their world while they have no knowledge of ours—they cannot communicate with us. In fact, "we think of our world in the same way that fictional characters think of theirs" (119). Just like the characters that capture us, we view our world with incomplete vision, unsure of where our paths will lead and thus become exemplars of ourselves (119).

Eco concludes *Confessions of a Young Novelist* with a chapter devoted to lists. He grounds his interest in his Catholic upbringing, a fondness that grew throughout this career (121). Eco recounts the influence of form in bounded and boundless lists, the distinction between practical and poetic lists, the consequences of rhetorical and categorical thinking, the

implications of dictionaries and encyclopedias, and the representation of coherence and chaos. In the midst of these identifying characteristics and examples, Eco includes applied exemplars found throughout the history of literature as well as his own writing. Eco considers whether he has ever created a "truly chaotic list," something only produced by poets (188). He explains that novelists, obligated to offer some sense of passage between space and time, do not have this ability (188–189). He refers to the final chapter of *Mysterious Flame* as a possible location for chaotic listing. In the referenced portion of the novel, Yambo, who has lost his personal memory, lies in a coma encountering signs and memories one after another in a disordered and frantic manner. Yambo encounters "an utterly incoherent collage of miscellaneous poetic quotations" (189)<sup>47</sup> and another mass media list inclusive of radio and music segments producing the same effect of chaos (192).

Eco, again, points toward his concern with the Internet as "the Mother of All Lists, infinite by definition ... in constant evolution, both web and labyrinth" (201). Eco characterizes the list with a dizzying vertigo and the Internet becomes the most disorienting. As the Internet produces sensations of wealth and omnipotence, it lacks determinations of judgment and interpretive discernment (201). The Internet becomes the penultimate list, threatening to obliterate the cultural origins lists once established. Eco asks, "Is it still possible to invent new lists if, when I ask Google to do a search with the keyword 'list,' I find a list of nearly 2.2 billion sites?" (201). The human practice of listing reveals cultural meaning and enriches interpretive possibilities that structure the human condition and our ability to participate within it. Ultimately, Eco's final comment—final confession as a young novelist—is that lists are "a pleasure to read

<sup>&</sup>lt;sup>47</sup> In the footnote reference to this list, Eco explains that the original Italian list contained a compilation of literary quotes "easily recognizable" by Italian audiences. In the English translation, the translator had to compile his own list of these quotes in order to offer this same expression of chaos as achieved in the Italian version (218).

and to write" (204). Lists are central to his literary praxis; they are his confession as a novelist just as they are the focus of his 2009 Louvre exhibition, his pictorial collection *The Infinity of Lists*, and what he understands as a base for culture.

### **5.4 Discerning Eco's Literary Praxis**

The amount of reflective responses from Eco on *Mysterious Flame* is minimal in comparison to his other literary endeavors—perhaps, because he had longer to comment on his earlier texts and, perhaps, because *Mysterious Flame* sold less copies than his other works.

Stephen Moss of the *Guardian* recounts Eco's comments on the matter, hypothesizing that *Mysterious Flame* was not as successful because it was "written in plain language" and thus not as difficult as his other novels, but only "publishers and some journalists" think audiences want simple texts (par. 7). Eco contends: "People are tired of simple things. They want to be challenged" and presumes that maybe *Mysterious Flame* was just not as challenging (par. 7). Like Eco indicated in his interview with Silverblatt, however, texts can be smarter than authors realize, and when we read *Mysterious Flame* through the lens of Eco's cultural aesthetics, semiotic theory, and treatise on lists, the book gains illuminating insight on signification, communication, and human meaning.

This chapter concludes with an analysis of Eco's literary praxis in *Mysterious Flame*, interpreted as a portrayal of the mutual necessity of signification and communication. Emerging from his semiotic theory, signification represents the codes that construct and form culture while communication is the embodied human labor that activates codes and produces signs transferred along a path of unlimited semiosis. In *Mysterious Flame*, we witness the struggle of a man who lost his history of communication—his embodied encounter with signs that gave him identity and his life meaning—retaining only the signification of public, cultural memory.

In *A Theory of Semiotics*, Eco explains that together communication and signification form general semiotics as a theory of culture. Although theoretically distinct, these processes of interpretation and response are often so closely intertwined in practical application that they cannot be distinguished. According to Eco's interpretive semiotics, signification is primary, without which communication would not be possible. The codes of signification are the laws of culture; however, no culture exhausts all possible codes. Through communication, human interpreters labor to rearrange and activate codes to produce new insight. Eco identifies rhetoric, ideology, abduction, and lists as representative practices that form communicative labor.

With Yambo, Eco produces a character that understands the codes of cultural signification. He could remember the artifacts that illustrated *Mysterious Flame* as "a biography of a generation" (Eco and Harcourt, par. 2), but this expansive sum of encyclopedic knowledge left Yambo alone in a world, surrounded by strangers and unknown places. What had once been a wife, a daughter, a lifelong friend, a childhood estate, a home, an office became foreign, as if never encountered before. Yambo retains signification, but loses the history of his communication—his embodied experience with signs that once prompted interpretive responses unique to him. As Yambo scavenged through the collections in his childhood country home, he hoped to regain these personal experiences that granted meaning to his identity.

Yambo's family and friends told him stories of his past that garnered no trace of memory or identity. His hope in Solara is to encounter what once formed his identity. We witness his concern when overwhelming himself with artifacts disembedded from their historical and cultural contexts and fearful that Gianni's memories of the radio would tarnish his own ability to recollect his past and thus regain his future. Yambo exists in a fog, an ambiguous space, rich with information and interpretive potential; meaning and identity, however, rely upon his ability

to trace the path of unlimited semiosis backward to its source, down a list, a collection, of signs and cultural memorabilia.

Yambo investigates his surrounding, acting as a detective attempting to engage in abduction. Abduction, as a logic alternative to deduction and induction, relies upon both general laws/rules as well as specific and particular cases/results. Abduction produces well-informed, educated guesses that allow interpreters to anticipate what may be to come. Yambo's loss of communicative memory, however, disrupts his abductive pursuit. He only has access to laws and desperately yearns to remember the particular cases that populate his childhood, adolescence, early adult life, and his middle ages. He pieces together what he finds in his attic, in the hidden chapel, in the mysterious flames of familiarity that appear throughout the novel, and in the stories that others tell him.

Only when Yambo experiences his second stroke does he begin to regain himself through his memories. In this final state, he re-collects the face of his father, his mother, and his sister. He remembers his grandfather's nativity and playing with a stuffed bear alongside his sister. He recalls the schoolmate who taught him what it meant to revolt from Fascist ideologies and the tragic events at the Gorge that left him with lasting feelings of guilt. The one sign Yambo could not recall, could not force to appear before him, was the face of his adolescent love interest, Lila. As she approaches to reveal herself, Yambo experiences a gust that causes the sun to blacken. Perhaps, Yambo dies, experiencing the only event that semioticians cannot change (*Theory* 66)—the moment in which we can know all meaning.

In *Mysterious Flame*, Eco collects and lists cultural artifacts as an encyclopedia that produces meaning through the performative labor of interpretive engagement. His project celebrates the interpretive possibilities of the encyclopedia and the hypertext, framing the

Internet as its exemplar. He acknowledges the infinity of the web as a net and labyrinth, crediting it with the ability to recover texts otherwise unavailable. Concurrently, however, Eco expresses concern with the cultural implications of the Internet, implicitly suggesting that it could mark the end of all human listing, lamenting the disappearance of critical discernment of information and credibility, and opposing accusations that computers were the underlying source of success for his first novel. Eco's concern lies in the minimization of communication as information theory alone that constructs the cybernetic assumptions that fuel our data-obsessed and algorithmic-governed society. The next, and final, chapter of this project addresses the contemporary use of algorithms under the assumption that our data depicts complete caricatures of human interpreters, forgetting that humanity identity relies upon the dual engagement of signification and communication.

#### **Chapter 6:**

The Penultimate List: When the Algorithm Replaces the Human Collector

Eco frames the list as the origin of culture and, simultaneously, suggests concern that Internet-obsessed listing practices could threaten to end all culture. Specifically, this chapter applies Eco's cultural aesthetics (discussed in Chapter 3), semiotic theory (discussed in Chapter 4), and literary praxis (discussed in Chapter 5) to the algorithmic processing of big data. Computer algorithms consume our contemporary Internet Age with particular focus on the cybernetic impulses of prediction and control. Eco's work cautions against a future where algorithms come to replace the human collector tasked with the responsibility of interpretation. The Internet's ability to store and process enormous data sets with direct outputs validates Eco's warning. Listing practices have significant cultural possibilities that can invigorate interpretive meaning or eliminate opportunities of insight when governed by dominant, institutionalized codes.

Three sections structure this analysis. The first section, "Confirming Eco's Algorithmic Concerns," summarizes and extends Eco's position in response to the algorithmic practices of the Internet Age, introducing his theoretical comments related to the effects for human memory. The second section, "Examining the Algorithmic Age," overviews a February 2017 study conducted by the Pew Research Center and Elon University's Imagining the Internet Center addressing the implications and contemporary role of algorithms, highlighting expert responses that predict future consequences. This study works as a collection, a compilation, or a list, joining expert voices from academics and industry practitioners that comment on how computer algorithms permeate contemporary society. The final section, "Implications," offers insight and response to

the environment portrayed in the Pew Research Center study with direct connections to Eco's work on lists, which emphasizes implications for interpretation, signification, and human communication.

As algorithms become an increasingly pertinent and permanent aspect of our digital landscape, they have direct influence on medicine, technology, research, advertising, education, politics, and social life. In such an era, it is important that communication scholars consider these consequences for human communities and cultures. Scholars in the field of communication have considered the influence of algorithms and big data to subjects such as culture (Ahn, Woodstock), education (Heinemann), security (Packer), labor (Reeves), knowledge/information flow (Goriunova, Guo), and interpersonal communication (Cappella). Eco's warning and response becomes increasingly relevant related to conversations considering algorithmic and big data consequences on culture, meaning, memory, and human connection. His primary contribution stems from his commitment to human involvement in interpretation, signification, communication, and the performative practice of listing.

### **6.1 Confirming Eco's Algorithmic Concerns**

While Eco did not supply extensive theoretical discussions to accompany his warning and concern about the influence of algorithms and big data, traces of his thinking populate his cultural aesthetics, interpretive semiotics, and literary praxis. This project has already summarized Eco's writings on lists contrasted to his work on computer and Internet technologies; this comparative analysis revealed a dual commitment to hypertextuality and limits as well as announced his unease about technological paths toward isolation, undue excess of data, and the obliteration of private life (Chapter 2). His theory of cultural aesthetics confirms possibilities for meaning formed by lists as open works that invite interpretive involvement from

audiences (Chapter 3). From his semiotics, lists become meaningful in cultural contexts that engage human interpreters in acts of signification and communication, performative practices unparalleled by computer algorithmic programming (Chapter 4). With *The Mysterious Flame of Queen Loana*, Eco implemented his theoretical insights into literary praxis, offering a recognition that lists and collections of encyclopedic cultural knowledge are not sufficient without the embodied human practices that enact communication and initiate meaning and interpretive response (Chapter 5). This chapter extends this discussion by considering additional relevant commentary from Eco as well as secondary scholarly responses.

Eco's perspective about the value and consequence of computer and Internet technologies is not a simplified evaluation of "good" and "bad." Eco celebrated the hypertextual possibilities actualized by the World Wide Web, the opportunities to bring people together in multimedia centers, and the capability to rearrange information, signs, and data in new connections that prompt unanticipated meaning. Eco curated the online resource, *Encyclomedia*, to exemplify these positive aspects of Internet technology. *Encyclomedia* offers access to a hypertextual collection of information that assists users in understanding European history with an emphasis on politics, art, literature, music, philosophy, etc. This resource actualizes the capability for users to conceptualize connections between and among information that populated the events and people leading up to third millennium. A particular function of *Encyclomedia* allows users to understand the connections and time spans between events and people in order to produce meaningful associations with an emphasis on their intertextual and hypertextual quality.

Concurrently, however, Eco expresses concern that these media would accelerate individualistic society, separate humans from the interpretive tasks of meaning and information discernment, and atrophy human memory. Eco publicly presents this material in a lecture

delivered at the United Nations on October 21, 2013. The address, entitled "Against the Loss of Memory," began with Eco's work curating *Encyclomedia*. The United Nations found Eco's project consistent with their UNESCO efforts, devoted to the protection of global memory sites. In the address, Eco expressed primary concern related to the Internet's consequences on memory—a recurring question emerging at the onset of new technological innovation since the invention of the written word.

During his lecture at the United Nations, Eco contends that Internet technology erodes historical and cultural memory. He laments the common Internet practice to eliminate publication or posting dates that contextualize information and problematizes the Internet's lack for filtration; he emphasizes the mutual need for remembrance and forgetting governed by the collective filtering of information. We cannot mistake the cultural practices of filtering and forgetting as strictly associated with canceling or obliterating information; instead, these practices assist the discernment and coherence of excess data. Through material and cultural artifacts, remnants of information remain for future consideration as messages in bottles. The Internet utilizes algorithms as filtration devices that govern results. The question remains, however, who controls the filtration? Perhaps, the designer of the algorithmic code, but rarely the Internet user.

For Eco, the Internet constructs a landscape for extensive information storage without educating users about practices of discernment. As a result, strategies for engaging Internet resources are as vast as the number of Internet users, producing a highly individualized environment void of communities. Eco worries that generations growing up during the Internet Age will never acquire the ability to discriminate credibility of information. To enrich critically discernment and, likewise, to empower our memories, we must read. Reading grants people with

interpretive abilities and instills life experiences that extend far beyond personal biography. Eco urges that in this Internet Age when we are encouraged to forget or ignore, relying only upon algorithms to store and process information about the past, we must fight for the collective memory of the future.

While the United Nations lecture highlights the erosion of public/collective memory, Eco addresses personal memory, only two months later, in a letter of warning written for his grandson as a Christmas gift. The Italian news source, *L'espresso*, published the letter on January 3, 2014. The message offers advice for engaging Internet technology. Eco begins with a warning against pornography sites that attempt to isolate viewers by keeping them from building human connections that will ultimately bring greater satisfaction, fulfillment, and happiness (par. 3). He then focuses his cautionary note on the Internet's influence in infectiously spreading memory loss as a "disease" (par. 5). Eco encourages memorization as a preventative practice to exercise skills of remembrance. He suggests that his grandson challenge his friends in feats of memorization; no matter whether reciting lines of poetry, members of soccer teams, or characters from novels, exercising this function will grant knowledge of "characters, stories, memories of all kinds" (par. 13). Eco frames memory as a primary cultural function that interprets, filters, and preserves meaning and data.

Eco urges his grandson to focus on enhancing his ability to remember instead of relying upon the computer for instant information (par. 7). He explains that human brains were the model for electronic computers (par. 13). The brain, however, is much more powerful, reliable, and enduring. Not only does it come without cost, but also we do not need to replace it after only a few years (par. 13). The brain with its powerful memory capacity not only has storage for personal events and experiences but also the ability to learn about historical and fictional events

uncovered through research and reading. Memory grants the ability to remember events that happened long before our birth.

Eco describes human life like entering a movie halfway though, requiring viewers to discern the events and characters present before their appearance. Eco contends that we live in a moment that has forgotten that we live *in media res*, in the middle, after decades, centuries, and millennia of human life. Eco argues that people born in 1990 are unaware of the events that occurred in 1980, let alone what happened half a century earlier (par. 18). Without cultivating your memory, you are limited to only living one life, one that is "very sad and poor of great emotions" (par. 25). He encourages his grandson to read, to browse magazines published before his birth, to memorize, to understand the world before he entered it (pars. 20–26). Understanding what has occurred assists in discerning what happens now and the consequences for the future (par. 17). Eco celebrates the power of cultural artifacts in nourishing our memories and contextualizing historical circumstances.

In an interview with *Der Spiegel*, Eco, perhaps, most explicitly announces this concern tied to his work on lists. The interview occurred in November 2009 simultaneous to his exhibition of lists at the Louvre. Here, Eco articulates the dual sentiment—that lists create culture but become "dangerous" when formed by algorithmic-governed practices (par. 24). In fact, he describes Google as a "tragedy" (par. 24) that limits one's ability to engage culture. The lists emerging as outputs to algorithmic processing of data sets erase the ability for cultural engagement. Eco writes, "Culture isn't knowing when Napoleon died. Culture means knowing how I can find out in two minutes" (par. 28). Of course, the Internet can produce the information in less than two minutes, but it weakens reliance on human memory, limits diversity of texts, and overshadows the necessity for critical interpretive skills.

Scholars confirm Eco's concern and its deep connection to his work on lists and culture (Bankov, Colbey, Schalk). Helge Schalk, who discusses the implications of media on interpretation and perception, highlights Eco's connection between lists and culture evidenced through his 2009 collection and exhibition of 1,003 lists. Schalk identifies the disguised function of Internet lists, which appear as generated by a user's search and susceptible to user's facility of choice, but in reality, these lists are algorithmic outputs that operate as an illusion (7). Likewise, Paul Cobley recounts Eco's concern, framing his letter to his grandson as a wake-up call to disrupt unreflective acceptance of the dominance of algorithmic processing and the techniques of big data (311). Although Cobley addresses Eco's fear that these practices will onset a world devoid of culture, he argues that this warning will never fully come to fruition. For Cobley, culture will never disappear, but our adoption of these practices will nearly halt innovations in both the humanities and the sciences (313).

Kristian Bankov, Eco's former student and semiotician, describes this concern as a central backdrop to *The Role of the Reader*, addressing culture through the metaphor of the encyclopedia. Bankov relies upon Eco's letter to his grandson and his *Der Spiegel* interview to texture his argument despite its peripheral theoretical presence throughout his writings (122). The central qualification, for Bankov, is Eco's emphasis on "statistical constancy" (120), which grounds Google's search engine functions. As a result, rankings correspond to user popularity. Thus, the Internet takes on the form of an encyclopedia rather than a dictionary's hierarchical structure. Bankov identifies Google as the first search engine site to implement Eco's understanding of culture as "a living social organism" operating according to statistical constancy measured by patterns of Internet use (122). Simultaneously, however, Bankov contends that Google marked "*the beginning of the end*" for Eco's articulation of culture (123).

Whereas Eco's description of culture demanded human interpreters to identify and discern meaningful conclusions, the Internet "outsourced" this task to algorithmic processing (123). Bankov understands Eco's encouragement for memorization in his letter to his grandson as reclaiming the intellectual labor that reveals meaning.

Specifically, Bankov identified six functions and innovations of Google's algorithms developed between 2002 and 2012 that displace human interpreters from the labor of discerning meaning and insight. First, with the "Did you mean?" function, Google corrects searchers' inquiries, producing "socially accepted" results that inhibit "memory habits" (124). For instance, a search for "battlesheep" will yield results for "battleship," and thus, disrupt the "multidimensional network" of encyclopedic cultural meaning (124). Second, Google Synonyms provides similar results for search terms. Thus, from statistical constancy, semiology may also bring results related to semiotics based upon search history (124). Third, Google Autocomplete, "the most successful and aggressive" function, offers possible completion to phrases based upon previous search history (124). For Bankov, this feature directs searches toward predetermined results that develop "a limited and distorted worldview" (124). Fourth, "Universal Search" supplies results from web pages, books, images, videos, maps, etc.; this function exemplifies the "integrated" possibilities of algorithmic processing (125). Fifth, Google Instant extends the Autocomplete function by presenting conclusions to our searches even as we type our query. While Google frames this service as saving users two to five seconds per search, Bankov argues that it replaces social competence of the cultural encyclopedia for "ready-made" outputs (125). Finally, Knowledge Graph presents already summarized information directly on the search results page so that users have no need to divert from Google's webpage (125). Bankov affirms

that Google will not slow down. In fact, they hope to develop Google Now, an algorithm that anticipates search results based upon users' search history and Internet practice (125).

Eco scattered traces of his concern through his theoretical writings, the plots of his novels, and quotes from interviews and lectures without completely rejecting the value and potential benefit of these technological innovations. Schalk, Cobley, and Bankov confirm Eco's specific warning related to the temptation to displace the human labor of communication, signification, and interpretation to the functions of computer programming. Furthermore, Bankov begins to identify how these operations shape our engagement in online and social contexts. The next section turns to a study, conducted by the Pew Research Center and Elon University's Imagining the Internet Center. This study joins together expert voices, commenting on the contemporary use and future potential of algorithmic processing in social and public contexts with insights about the potential benefits and unintended consequences for various aspects of human life.

### **6.2** Examining the Algorithmic Age

On February 8, 2017, the Pew Research Center published a study completed in conjunction with Elon University's Imagining the Internet Center entitled "Code-Dependent: Pros and Cons of the Algorithmic Age." The primary researchers were Lee Rainie (Director of Internet, Science, and Technology Research at the Pew Research Center) and Janna Anderson (Director of Elon University's Imagining the Internet Center). Their research team included Nick Hatley (Research Assistant), Kyley McGeeney (Senior Research Methodologist), and Claudia Deane (Vice President of Research). This study portrays the breadth of algorithmic use from the perspective of academic and industry experts from the fields of technology, law, communication, information science, security, art, media, management, engineering, etc.

The researchers' presupposition frames algorithms as the basis for everything seen and done online, as the backbone for the Internet's infrastructure. They announce optimization as the central good and goal of algorithms, integrated into all aspects of online engagement from smartphone apps, to online dating, purchase recommendations, search engine results and email correspondence (2). Additionally, the recent trend of cyber attacks and hacking seeks to exploit algorithms by breaking and exploiting their codes, and computer programmers seek to produce "self learning and self programing" algorithms that guide the path toward possibilities of artificial intelligence (2). Respondents to the study indicated that the future of algorithms is bright, headed toward an environment where algorithms will become the authors of algorithms.

This study seeks to articulate the intentions and implications of algorithmic use as well as their unforeseen consequences. By situating the importance of algorithms on a global scale, the researchers identify news stories from around the world that highlight their potential and influence. For instance, in October 2016, the value of the British pound dropped by 6.1% in only a matter of seconds due to algorithms that prompted currency trades (2). Microsoft engineers produced a "Twitter bot" designed to communicate with millennials that began posting offensive and discriminatory messages within only hours; the algorithm "learned" these responses based upon the trends of the site's users (2). Facebook introduced an algorithm to identify "Trending Topics" on news feeds but could not distinguish "real" news and "fake" news (2–3). The algorithm lacked critical discernment pertaining to credibility and reliability of information. The study also revealed multiple instances of discrimination against minority and low-income populations as well as pronouncements about the need for regulatory oversight (3).

The study references concerns about the influence of algorithms, quantum computing, big data analysis, and hyper-personalized advertising following the 2016 presidential election (3).

Stanford University analyst, Aneesh Aneesh contends that "algocratic governance" will eventually overtake "bureaucratic hierarchies" and Harvard University's Shoshana Zuboff argues that "surveillance capitalism" will result in an "information civilization" (4). These events indicate the fast-growing practice of algorithmic use and contextualize the Age of Algorithms (3).

The canvassing occurred between July 1 and August 12, 2016 and was the seventh collaboration between the Pew Research Center and Elon University's Imagining the Internet Center (25). This study requested responses from approximately 8,000 experts identified in their first six collaborations. The canvassing also encouraged sharing the survey with others who may have interest in participating in the study (26). The study yielded 1,302 respondents, who answered the question, "Will the net overall effect of algorithms be positive for individuals and society or negative for individuals and society?" (25). The "non-scientific canvassing" found that 38% thought that positive outcomes would overshadow negative consequences while 37% said that the negatives would outweigh the positives and 25% predicted a 50-50 split (5). Additionally, the study requested qualitative elaborations to understand the rationale and research that informed responses. More than half of the respondents remained anonymous, representing institutions such as Adobe, Booz Allen Hamilton, Carnegie Mellon University, Craigslist, George Washington University, Google, Groupon, Harvard University's Berkham Klein Center for Internet & Society, Hewlett Packard, IBM, Massachusetts Institute of Technology, National Public Radio, The New York Times, Oxford University, Rochester Institute of Technology, Stanford University, Tesla Motors, US Department of Defense, United Steelworkers, University of California-Berkeley, University of Copenhagen, University of Milan, University of Pennsylvania, University of Toronto, Wired, Worcester Polytechnic

Institute, Yale University, and many more (26–29). Ultimately, the study received 728 responses with additional commentary that generated the study's conclusions organized along the following seven themes (25): (a) the ongoing spread of algorithms; (b) algorithms offer positive outcomes; (c) algorithmic predictive modeling attempts to displace human judgment; (d) algorithms do not eliminate bias; (e) algorithmic emphasize social and political divides; (f) algorithms will accelerate unemployment; and (g) the negative consequences of algorithms require regulatory oversight, user literary, and industry transparency (4). The remainder of the section provides detailed insights organized according to these themes.

# 6.2.1 Theme 1: "Algorithms will continue to spread everywhere" 48

The study found widespread agreement that, despite the invisibility of algorithms, their use and impact will inevitably spread in the coming decades (5). The study relies upon a response from Barry Chudakov, the founder of Sertain Research and StreamFuzion Corp. Chudakov quotes Pedro Domingo's *The Master Algorithm*, which observed, "If every algorithm suddenly stopped working, it would be the end of the world as we know it" (5). The question is no longer should we embrace algorithmic use; instead, we must consider how we can educate publics to understand the consequences of what we have already done (5). We live in a moment where the driving consideration must be discussions of response. The task is to educate those who do not create or work with algorithms, those who may be unaware of their impact or, perhaps, even their presence.

The study also references David Krieger, director of Switzerland's consulting group, the Institute for Communication & Leadership (IKF), who explains how algorithms will allow collective network governance to replace government bureaucracy (31), and Frank Pasquale,

<sup>&</sup>lt;sup>48</sup> The study addresses theme 1 on pages 4, 5–7, and 30–34.

author of *The Black Box Society: The Secret Algorithms That Control Money and Information* and law professor at the University of Maryland. Pasquale announces how corporations use our data to make judgments that determine opportunities, access, and quality of service. Following the arguments presented by Jeff Jarvis in *What Would Google Do*, Pasquale argues as algorithms become more prevalent, their decisions will increasingly affect distribution of opportunities for employment, promotion, health coverage, credit score, and education. Pasquale explains that IBM already utilizes these tools for assessments of cost-effectiveness that diverts its attention away from top managers (33). Furthermore, the study includes commentary from additional respondents, who recognize that algorithms aim to develop equations for predictive modeling, that best practices in code design will implement the strategies with large scale public influence, that algorithms will advance a quantifiable culture, and that algorithms long predate the presence of computers—in mathematical equations, food recipes, musical scores, etc. (30–32).

Consistently, respondents indicated the vast presence of algorithms as only just a glimpse toward the possibilities to come.

### 6.2.2 Theme 2: "Good things lie ahead"<sup>49</sup>

The optimistic embrace of algorithms celebrates their potential in organizing, categorizing, and calculating huge data sets into understandable outputs. Respondents insisted that algorithms would lead to scientific innovations, extensions of human facilities, convenience, and access to desired information (7–8). Respondent Stephen Downes, an affiliate of the National Research Council of Canada, discusses possible advances in banks, heath care providers, and governments. He argues that banks will be able to work from more complete sets of information to determine an applicant's ability to afford a loan without considering "race,

<sup>&</sup>lt;sup>49</sup> The study addresses theme 2 on pages 4, 7–9, and 35–41.

socio-economic background, [or] postal code" (8). While these innovations will deny loans to many who would receive them today, they will grant banks that ability to focus on alternative individualized services that will assist a variety of financial situations (8). Within health care, algorithms will decrease overhead costs by placing financial responsibility on the patient and less burden on the system (8). For governments, algorithms will correct issues such as gerrymandering and the manipulation of congressional districts to benefit particular incumbents (8). The study recognizes Downes's response as representative of the future benefits of algorithms for various social aspects.

Additional anonymous responses texture this insight, emphasizing the minimization of bureaucracy, reduced pollution, better health care services, less unnecessary spending, equalized access to information, expanded creativity, less traffic congestion, safer roads, more effective advertising, advanced evidence-based social science research, improved police work, better distribution of commercial exchange, increased confidence in decision making, more efficient stock exchange and digital purchase of material goods, and minimized human error (9). Among these anonymous respondents, a senior Microsoft researcher argues that search engine optimization and genome sequences already secure evaluation of algorithms as positive (35).

Demian Perry, the director of mobile products at NPR, and Jason Hong, associate professor of computer science at Carnegie Mellon University argue that algorithms and humans will work collaboratively. Perry frames algorithms as "helpmates" that contribute efficiency and consistency through "mass-produced decisions" but are unable to match human discernment (35). Hong contends that algorithms will thrive in low risk situations, instances with high certainty, or circumstance that only require "good enough"—most often, however, algorithms will work in combination with humans (36). Scott Amyx, CEO of Amyx+, argues that

algorithms will allow humans to attend to "creativity, friendship, preservation, resolve, hope, etc." and machines will complete detail-oriented and automated tasks (36). He hopes for algorithms that will produce qualitative, empathetic artificial intelligence (36–37). An anonymous respondent framed that AI will act more akin to IA—intelligent assistants that can work to predict and provide our needs and requests.

6.2.3 Theme 3: "Humanity and human judgment are lost when data and predictive modeling become paramount" 50

With theme three, the researchers transition to the first result that presents concern and challenge—the power algorithms grant corporations by assisting their pursuit of efficiency and profitability based upon the ability to process enormous data sets. Algorithms use humans as numbers and data rather than "real, thinking, feeling, changing beings" (9). This trend points toward a world where algorithms write algorithms, displacing the role of humans. An assistant professor in human-centered computing from Clemson University, Bart Knijnenburg, offers representative insight. He argues that algorithms portray only a "caricature of our tastes and preferences" based upon the advancement of convenience (10). Following this mindset, algorithms become "self-fulfilling prophecies," reducing humans to data inputs whose primary task is to consume algorithmic outputs (10).

An information technology architect at IBM explained that corporations "repackage" profitability as a common social good that will require new consideration about the ethical implications of manipulation, marketing, and surveillance governed by predictive modeling equations (44). Giacomo Mazzone argues that they will "kill local intelligence" for global corporations interested in instant profits and revenue (52). An anonymous political science

<sup>&</sup>lt;sup>50</sup> The study addresses theme 3 on pages 4, 9–11, and 42–56.

professor at a major U.S. university explained that algorithmic predictive modeling, which governs Facebook newsfeeds, Amazon purchase suggestions, and Netflix movie recommendations, are simply forms of consumer "typecasting" that offer only a limited glimpse at behavior, interest, and preference (43).

University of Pennsylvania communication professor Joseph Turow provides a similar comment: algorithms reduce humans to data used "to profile them, score them, and decide what options and opportunities to present them next based on those conclusions" (46). Ultimately, however, there will be very little human understanding about these conclusions (46). Evan Selinger, a professor of philosophy at the Rochester Institute of Technology, comments on the impact of limited understanding as a threat toward losing a fundamentally human activity. He explains that "human" has already become a largely contested notion in response to scientific research on artificial intelligence and the emergence of cyborgs, but more and better research must continue to explore this question, aimed at understanding the positive and negative consequences of algorithms (47).

A series of respondents offered similar insight about how algorithms will change our understanding of humans and human connections. For instance, an anonymous respondent, who serves as president of a consulting firm, referenced the social media site, LinkedIn, where users seek to manipulate their contacts' contacts as a networking tool for career advancement, posing questions related to ethics, lifestyles, and information excess (48). Carnegie Mellon professor, Jason Hong, warns that humans will forget that algorithmic outputs are merely "an approximation," mistaking them for undisputed reality (49). Bob Frankston, a software programmer, commented that algorithms work according to the presupposition that "if humans don't intervene [,] the 'right thing' will happen" (49). Information and technology consultant,

Amali De Silva-Mitchell, explains that predictive modeling will result in "a spoon-fed population" that has lost its ability for "complex decision-making skills" (51). Anonymous respondents concurred. The researchers offer a collage of the gathered insight, including arguments that algorithms will always work to benefit profit-hungry corporations, that they only advance the systems of dehumanization present since the industrial revolution, and that algorithms become invisible instruments of mindreading and manipulation that silently control decision making without accountability (10–11). These respondents warned that with algorithms "The Common Good" will become an "obsolete relic of The Past" and will destroy human agency by displacing human programmers and analysts (10–11). The study found a consistent theme that algorithms will advance the corporations and institutions they serve but have devastating effects on the less powerful entities largely due to a lack of transparency and oversight that allows for institutionalized and programmed bias.

# 6.2.4 Theme 4: "Biases exist in algorithmically-organized systems" 51

The study announces two trends related to bias. First, the biases and perspectives of programmers inevitably transfer to algorithmic code, and second, because algorithms cannot acquire data inputs that represent the full diversity of the human population and the irreducibility of human experience, they will always work with limited and insufficient knowledge (11). Justin Reich, the executive director of MIT Teaching Systems Lab, indicates that algorithmic code most often comes from positions of power; for these individuals algorithms will be "convenient, safe and useful" (12). The harmful consequences of algorithms, however, will target already marginalized populations through written and coded biases. Software engineer, Dudley Irish, paraphrases Enlightenment philosopher, Immanuel Kant, stating, "out of the crooked timber of

<sup>&</sup>lt;sup>51</sup> The study addresses theme 4 on pages 4, 11–13, and 57–62.

these datasets no straight thing was ever made" (12). Since biased programmers code, they produce biased outcomes.

Additional respondents consider the influence of biased algorithmic processing as a replacement for human reasoning with far-reaching consequences that advance efficiency without consideration for is lost (12). Irina Scklovski of the IT University of Copenhagen, worried about the implications for human rights (57). For University of Illinois at Chicago's race and media scholar, Jenny Korn, algorithms reaffirm normative assumptions about race and gender. As an example, she notes that a Google search for the term professor will yield a majority of photos depicting white male with a qualifier necessary to yield diverse results (58). A senior program manager at Microsoft observed that algorithms will present simplified views that disregard the complexity and difficultly of social issues, and Randy Albelda, economics professor at the University of Massachusetts-Boston, notes that data collection and analysis does not ultimately solve social issues (60–61).

The biases, prejudices, and inequalities that already characterize our social environments become input that position algorithms as "a feedback loop" that mirrors existing attitudes (60). "Blind spots" remain, without the practical ability to provide feedback about their inadequacies (61). An anonymous professor of computer information systems at Norwich University argues that algorithmic control would be the dream of George Orwell's 1984, granting powerful institutions the ability to control information and direct public opinion (61). Various anonymous respondents indicated that as our trust in the use of algorithms strengthens the ability to detect bias decreases, fueling already existing divides.

6.2.5 Theme 5: "Algorithmic categorizations deepen divides" 52

<sup>&</sup>lt;sup>52</sup> The study addresses theme 5 on pages 4, 13–14, and 63–69.

The study found that algorithms play a significant role in advancing divides that create an increasingly contentious public domain as people only associate with like-minded perspectives. Respondents observed that there are increasingly less opportunities for those who do not understand algorithms to participate in public life as "echo chambers" deepen divides (13). As algorithms continuously produce like-minded outputs, they confirm audiences of their preexisting assumptions and limit the frequency that people encounter contrary opinions, ultimately disrupting information access.

Various respondents address the negative implications. Dave Howell, a telecommunications program manager identifies the five corporations that hold the majority of massive data sets: Microsoft, Google, Apple, Amazon, and Facebook (64). With access to this data, they likewise gain significant social power. President and CEO of the Center for Policy on Emerging Technologies, Nigel Cameron identifies that this environment is particularly problematic in a world of diverse and divergent standpoints (65). Anonymous respondents indicated that the trend to expose people only to information with which they agree would limit creativity, innovation, experimentation, discourse, and deliberation (68). We will come to the assumption that algorithms can accomplish these functions, which will replace human workers for machines and increase unemployment rates.

## 6.2.6 Theme 6: "Unemployment will rise" 53

The ability for algorithms to accomplish the work of human laborers will result in unemployment and its accompanying consequences. Numerous respondents identified this theme, suggesting that this trend could lead to complete, 100% unemployment and new definitions for capital, labor, and exchange (15). This concern is not new. The study references a

<sup>&</sup>lt;sup>53</sup> The study addresses theme 6 on pages 4, 14–15, and 70–74.

letter sent to then-President Lyndon B. Johnson in the mid-1960s from an ad hoc committee of 35 scientists and social activists including multiple Nobel Prize winners; the letter cautioned of a "cybernation revolution" that would displace the worker, increase unemployment, and result in an unskilled human workforce (70). A contemporary report from a global consulting firm indicated that algorithms could perform approximately 45 percent of human jobs, saving corporations nearly \$2 trillion annually (70). The results for the global human community, however, would bring significant issues for consideration.

The director of online strategy at the University of California-Davis, Peter Brantley, predicts that unemployment prompted by technological displacement fueled by algorithms will prompt "significant unrest and upheaval" similar to the events occurring in the US between the 1960s and 1980s (71). Other respondents, such as Paul Davis, Michael Dyer, and Stewart Dickinson, advocated that a Living Wage, universal basic income, or stipend would become necessary (72–73). This shift to an algorithmic-dominated workforce would largely remove humans from the equation but still need checks and balances through public literacy, transparency of code, and regulatory oversight.

6.2.7 Theme 7: "The need grows for algorithmic literacy, transparency and oversight" 54

As an alternative to "the algorithm-ization of life", respondents called for accountability through literacy, transparency, and oversight (15). Susan Etlinger of Altimeter Group writes that this oversight should mirror the existing standards for food and clothing regulations (15). For Etlinger, the problem emerges as only a small subset of people understands the code that determines social and public life. Chris Kutarna, fellow at the Oxford Martin School and coauthor of *Age of Discovery: Navigating the Risks and Rewards of Our New Renaissance*,

<sup>&</sup>lt;sup>54</sup> The study addresses theme 7 on pages 4, 15–17, and 74–85.

contends that the "first and most important step" must be educating publics about who collects their data and how it influences decisions that affect their lives (16). Currently, algorithms are proprietary, owned by corporations, and thus, operate silently without publicly available codes (74).

David Lankes, director at the University of South Carolina School of Library and Information Science, argues that without widespread public literacy, society will split into those who use algorithms and to those used by them (75). Stanford law professor Mark Lemley writes that regulations will need to prevent certain uses of data or offer compensation for discriminatory outcomes (77). The question that remains for project portfolio manager Tse-Sung Wu is who will hold the accountability—the programmer, the owner of the algorithm, or some other entity. These considerations will require new laws for guidance (78). An anonymous MIT professor insists that understanding algorithms is *the* literacy of the 21<sup>st</sup> century, requiring not only technological mastery but also societal foresight (75).

The study indicates that initial shifts related to oversight and accountability emerged after the completion of the canvassing in August 2016. Specifically, the Obama Administration released three reports related to artificial intelligence: "Preparing for the Future of Artificial Intelligence" (October 12, 2016), "The National Artificial Intelligence Research and Development Strategic Plan" (October 12, 2016), and "Artificial Intelligence, Automation, and the Economy" (December 20, 2016). Additionally, in September 2016 Amazon, Facebook, Google/DeepMind, IBM, and Microsoft joined forces to establish the Partnership on AI to Benefit People and Society with the addition of Apple in January 2017 (77). From the perspective of this study, these efforts begin to respond to the need for public deliberation about algorithm use and influence.

This study's seven themes address numerous possibilities for positive and negative consequences from algorithms. Responses range from Google's vice president and Chief Internet Evangelist, Vinton G. Cerf, who insists that the algorithm's ability to process big data confirm its worth and positive aspects (18) to Doc Searls, fellow at the Center for Information Technology & Society at University of California, Santa Barbara and former fellow of the Berkman Center for Internet & Society at Harvard University, who compares algorithms to "nuclear power plants and oil refineries" that lack "regulatory oversight" (19). Searls, as well as Marc Rotenberg, executive director of the Electronic Privacy Information Center, contends that even algorithm programmers do not fully understand the consequences of their code and cannot predict the eventual outputs (19).

The study summarizes expert voices on the influence and role of algorithms in contemporary life without offering a simplified prediction of a good or bad net outcome. Like the response from Cory Doctorow, computer scientist at MIT's Media Lab, the study announces the need for public consideration without discerning a clear positive or negative determination. For Doctorow, deliberation will help to avoid a "Kafkaesque nightmare" where our decision making and judgments of moral determinations emerge from a simple criterion—"because the computer says so" (18). The founder of Data & Society, danah boyd, clarifies that algorithms are only as good as how we use them—algorithms can empower people and can hurt them. She writes, "What's at stake has little to do with the technology; it has everything to do with the organizational, societal and political climate we've constructed" (22). Above all else, this study calls for consideration and deliberation about the affects of algorithms for public life and human connection.

The collaboration of the Pew Research Center and Elon University's Imagining the Internet Center produced seven themes that confirm the relevance of algorithms and summarize their role throughout contemporary society. Algorithms permeate our society, determining credit scores, filtering search engine results, highlighting new stories, making purchase recommendations, and accomplishing detail-oriented tasks. Additionally, the study collects the perspectives and predictions of academics and industry practitioners, providing a glimpse into the ever-growing realm of big data and algorithmic processing.

In this study, "Code-Dependent: Pros and Cons of the Algorithmic Age," the Pew Research Center and Elon University's Imagining the Internet Center portray the environment that solidified Eco's concern by identifying seven themes that represent public attitudes and uses for big data and algorithmic processing. These themes indicated the inevitability of increased algorithm use, their positive possibilities, their negative consequences (loss of human judgment, bias, widening divides, and unemployment), and the need for public awareness through literacy, transparency, and oversight. Eco's project underscores and illuminates the signification of these themes and the comments included in this study. The seven themes identified by the researchers illustrate the milieu and public perception of algorithms—this environment prompted Eco's concern and contextualizes his warning and advice. In fact, we find throughout Eco's corpus hints of insights that offer implications related to human signification, communication, and interpretation.

#### **6.3 Implications**

Eco's work on lists articulated through his cultural aesthetics, semiotic theory, and literary praxis announce implications for understanding the consequences of online data collection and algorithmic processing. Eco's scholarly and literary corpus is uniquely relevant to

public debate and deliberation surrounding the influence of algorithms on culture and human connection. This project's concluding remarks center on four primary implications: (a) preserving multiplicity of codes, (b) maintaining human involvement in the role of interpretation, (c) allowing openness for diversity of interpretive engagement, and (d) offering listing as a performative response that enriches culture and human meaning.

First, Eco's work celebrates the manifestation of meaning as revealed in multiple and diverse codes. In Eco's interview with Der Spiegel, he explains that culture is not the accumulation of pre-existing knowledge of historical, scientific, or conceptual facts but rather the ability to find out desired information from various sources. Specifically, he expresses concern that the Internet as the Mother of All Lists has become the default source for information and insight. Speaking in terms of his semiotic theory, search engine inquiries have become the primary and principal code for cultural knowledge. In his cautionary letter to his grandson, Eco frames this code as a crutch that weakens memory. He encourages his grandson to engage two tasks of intellectual labor—first, to try to remember what he learned online and, second, to explore a multiplicity of codes. He suggests that his grandson browse old magazines, watch classic movies, and read novels; furthermore, he urges him to memorize what he reads and what he learns from these cultural artifacts. While online hypertexts act as the foundational inspiration for the notion of hypertextuality, the algorithm would destroy multiplicity of codes, signs, and texts if they were to succeed in becoming the one and only source for cultural insight. Eco's concern is that algorithms will displace all other cultural codes, eliminating the human labor that produces innovation, art, creativity, experimentation, and interpretive response.

Second, Eco urges for the integral role of human beings in the act of interpretation.

Interpretation is a persistent theme for Eco, celebrated in his emphasis on openness, advanced as

the foundational notion of his interpretive semiotics grounded in the pragmatism of Peirce and Morris, and articulated as a primary source of meaning and identity in *The Mysterious Flame of Queen Loana*. Humans have the responsibility to interpret texts, signs, and cultural artifacts in the pursuit of meaningful insight. While made possible by the codes of signification, interpretation requires the human labor of communication, sending human beings down the path of unlimited semiosis. Interpretation requires that we engage abduction, undercoding, overcoding, and rhetorical code-switching to produce signs and meaning in the activation of codes. Eco fears that algorithms will disrupt the human practice of interpretation and discernment where every inquiry produces ready-made results. Algorithms separate humans from artifacts and information, disrupting their ability for interpretation and thus limiting the production of cultural meaning.

Third, Eco announces the necessity for diversity and openness of interpretive response. He rejects the assumption that theory and philosophy can represent universally verified reality or undisputable truth. Eco frames the universe of existence as a labyrinth and hypertextual knowledge with endless paths of unanticipated and unforeseen connection. With *The Open Work*, he offers a cultural aesthetic that invites a diversity of interpretive responses elicited by texts and negotiated in the interaction with readers. The notion of unlimited semiosis represents a multitude of paths that produce interpretations as one sign prompts signification of another. Algorithms process information from big data collections producing outputs that no longer require interpretive consideration. Algorithms, thus, would limit worldviews and interpretations that deviate from their analysis of data. Eco worries that human interpreters forfeit their ability for critical discernment in response to algorithmic outputs, ultimately rejecting all other possible understandings of the world.

Fourth, Eco frames lists as a performative practice where humans produce signs in the communicative labor of listing; the interpretive power of these lists relies upon their activation of the codes of signification that represent the endless possible connections between and among nodes of data. In the act of listing, humans collect data and, like an algorithm, process the information to understand cultural significance and meaning. In an era where the algorithm replaces the human collector and interpreter, listing becomes a performative response articulated in his cultural aesthetics, interpretive semiotics, and literary praxis.

From his cultural aesthetics, Eco rejected esoteric and pretentious assumptions that meaning only emerges from avant-garde and high culture. Eco not only worked to reclaim popular culture as a viable and meaningful source for interpretive insight, but he also advocated for its study as an alternative source for understanding the world around us. When encountering open texts, interpreters have the responsibility to discern and produce meaning. Eco does not locate meaning in the author, audience, or text but rather in the interpretive encounter occurring between texts and readers. This engagement embraces diversity of meaning and insight, rejecting the assumption that a text contains one true or correct interpretation. Eco references Joyce's listing practices as a representation of the chaosmos, mirroring the encyclopedic and hypertextual environment that characterizes human existence. Through lists, Joyce and Eco represent possibilities for signification, communication, and interpretive meaning as readers approach texts, attempting to discern insight.

Eco's interpretive semiotics affirmed the mutual need for signification, communication, and interpretation by engaging sign functions as a logic of culture. At no point does he deny the ability for algorithms to process information in the production of signs, but he simultaneously will not equate non-human machine encoding and decoding with the interpretive responses of

embodied human beings. To remove the human being from the interpretive task would obliterate communication and thus destroy culture. Instead, semiotics permits interpreters to engage a path of unlimited semiosis that allows one sign to evolve into another, producing diverse and multiple interpretations. As the origin of culture, lists are fundamental to semiotics. The communicative labor of collecting and listing information and signs allows human interpreters to discern insight as they activate codes of signification.

Eco's literary praxis, as represented in *The Mysterious Flame of Queen Loana*, follows Yambo's pursuit to engage multiple cultural codes in the construction of encyclopedic meaning. This novel, likewise, announces the need for the embodied experience of human labor in order to understand identity and uniqueness of insight. Without memory of the interpretive response and encounter, cultural artifacts lose their context and meaning. As Yambo encounters the cultural memorabilia shared by a generation, he navigates a multitude of possible interpretations to understand the personal significance and meaning particular to his own experience. *The Mysterious Flame of Queen Loana* is a novel of collections and lists. Yambo relies upon the collections of his past; Eco, as a novelist, utilizes listing and collection as literary devices. From both, the reader discerns the cultural meaning that algorithmic practices endanger.

Yambo's struggle to recover his memory and identity becomes a representation for our future as we witness algorithmic processing of big data displace and replace human interpreters from encountering, engaging, and interpreting encyclopedic knowledge and cultural artifacts. The collections of memorabilia characterize signification while the embodied labor of encountering and making sense of the world constitute communication. Throughout Eco's work, he repeatedly announces the importance of interpretation and signification, but *The Mysterious Flame of Queen Loana* becomes Eco's pronouncement about the necessary role of embodied

human communication in the creation and manifestation of cultural meaning. Without knowledge of his unique experience encountering the memorabilia of the past, Yambo cannot understand the meaning of his present or future life. To regain his identity, Yambo seeks to reembody encyclopedic information—only through the labor of communication can interpreters activate the codes of signification that make meaning and culture possible. As algorithms assume the role of collecting, encountering, analyzing, and decision-making in response to data sets, the communicative task of human interpretation becomes an endangered practice.

Listing, for Eco, is a performative response to the algorithmic environment. The labor of listing is a communicative practice traveling through the multitude of paths of unlimited semiosis; listing requires the human labor that produces signs made meaningful through the codes of communication. Eco explains how lists create culture in the performative labor of collecting and understanding signs, data, information, artifacts, and texts. Algorithms, as the underlying structure and architecture of the Internet as the Mother of All Lists, assume the task of collection and analysis. For Eco, the danger of algorithms emerges as humans unreflectively and, at times, willingly forfeit the labor of communication to automation, information accumulation, and algorithmic processing.

Eco's work announces how culture emerges as humans encounter the ambiguity of information that becomes the content for lists as humans wade through this ambiguity in search of meaning. As humans begin the performative practice of listing they enact the communicative labor of producing signs and activating codes of signification. Algorithms in all their power advance human knowledge by accepting the responsibility to wade through the information of incredibly large data sets governed by pre-established codes that disregard contextual particularities. While humans may be incapable of identifying trends and patterns from the

billions and trillions of pieces of information, their responsibility as communicators is to navigate this ambiguous terrain seeking meaning through the signification of interpretive response. Communication is the human labor that activates signification and underscores cultural meaning.

I now return to the observation that motivated and undergirded this project—Eco's pronouncement that lists create culture and his concern with the onset of online data collection and algorithmic processing. Lists create culture in the labor that produces signs and the formation of texts open to interpretive possibilities. Without denying the algorithm's powerful potential to advance human knowledge and understanding about the past, present, and future, Eco cautions that big data techniques become the penultimate list, in its routine displacement of human beings from encountering and interpreting signs, texts, and data. By returning to human listing practices and reclaiming the role that algorithms attempt to usurp, we can nourish and enrich cultural and interpretive possibilities. These listing practices, however, must remain committed to a multiplicity of codes, embodied human participation in the interpretive task, and diversity of meaning. Much like Eco's confession as a young novelist—that lists are "a pleasure to read and to write" (Confessions 204)—human listing offers a performative practice that counteracts threats presented by online data collection and algorithmic analysis. Eco warns that allowing algorithms to replace the human collector and interpreter has severe consequences for human culture. While Eco does not suggest that we should reject and renounce algorithms or completely disconnect from the Internet, he insists that we reflectively encounter, engage, and interpret the world around us without solely relying upon machine processing and algorithmic governance. According to Eco, we can nourish signification, communication, and interpretation by attending to cultural meaning through the performative engagement of lists.

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To understand and enrich culture in the algorithmic age, Eco urges that we must encounter and critically interpret lists, popular culture artifacts, avant-garde literature, Baroqueera art, museums, catalogues, fashion show runways, the names in the phonebook, Santa Claus's twice checked list of naughty and nice, aisles in a grocery store, the six wives of King Henry XVIII, collages, relics, archives, to-do lists, the crown jewels, must-see attractions in travel guides, the names displayed on war memorials, ornaments on a Christmas tree, historical timelines, personal collections, all-you-can-eat restaurant buffets, New Year's eve countdowns, souvenir shops, encyclopedias, urban skylines, work cited pages, heirlooms, genealogies, prayers and litanies, relics, libraries, and the distant stars in the night sky.

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# Appendix A List of Journals Surveyed within the Field of Communication

#### **International Communication Association:**

Annals of the International Communication Association (0)

Communication, Culture, & Critique (1)

Communication Theory (4)

*Human Communication Research* (0)

*Journal of Communication* (2)

Journal of Computer-Mediated Communication (1)

# **National Communication Association Journals:**

Communication and Critical/Cultural Studies (4)

Communication Education (1)

Communication Monographs (0)

Communication Teacher (0)

Critical Studies in Media Communication (7)

*First Amendment Studies* (1)

Journal of International and Intercultural Communication (0)

Journal of Applied Communication (0)

Quarterly Journal of Speech (25)

Review of Communication (2)

Text and Performance Quarterly (10)

#### **Eastern Communication Association:**

Communication Quarterly (3)

Communication Research Reports (0)

*Qualitative Research Reports in Communication* (2)

#### **Southern States Communication Association:**

Southern Communication Journal (1)

## **Western Communication Association:**

Communication Reports (0)

Western Journal of Communication (5)

## **Central States Communication Association:**

Communication Studies (4)

# **Religious Communication Association:**

Journal of Communication and Religion (1)

#### **International Association of Dialogue Analysis:**

Language and Dialogue (0)

# **Additional Notable Journals:**

*Atlantic Journal of Communication* (1)

Empedocles: The European Journal for the Philosophy of Communication (1)

Canadian Journal of Communication (15)

Corporate Communications: An International Journal (0)

Journal of Business Communication (1)

Journal of Communication Inquiry (10)

Journal of Dialogue Studies (1)

*Journal of Family Communication* (0)

Northwest Journal of Communication (0)

*Philosophy and Rhetoric* (11)

Rhetoric and Public Affairs (3)

Rhetoric Society Quarterly (4)

Rhetorica: A Journal of the History of Rhetoric (21)

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