

WRITING POST-PERSON: LITERACY, POETICS, AND SUSTAINABILITY
IN THE AGE OF DISPOSABLE INFORMATION

by

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Abstract

Turning originality in authorship upside down, *writing post-person* posits a vital new role of writer-teacher-researcher in promoting sustainable relationships between people and the automated information environments they inhabit. In particular, I propose a remedial approach to info-waste in networked systems of literate correspondence, using poetic inquiry to examine the contemporary problem of *spam* (unsolicited bulk and commercial email and net abuse), and to reframe this critical juridical-technical issue from a personal and literary perspective. Seen within the Western historical context of public postal systems and the rise of mass mail, the connection between modes of impersonal address in networked media and consumerist ideologies is theorized. Focusing on the troublesome immanence of disposability, informational excess is examined as a means of social inclusion and exclusion by tracing computer network spamming from the first bulk newsgroup postings to the current era of artificially intelligent robotic networks. Framed within an educational context of teaching and writing in the twenty-first century, an age post-personal discourse, this dissertation aims to enhance the critical pedagogical work of establishing diversity as fundamental to personal and social value systems with attention to how poetics can be applied to everyday digital literacies to increase language awareness, stimulate student creativity, and at the same time serve as a barometer of prevailing climate change in cyberspace.

**WRITING POST-PERSON: LITERACY, POETICS, AND SUSTAINABILITY
IN THE AGE OF DISPOSABLE DISCOURSE**

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WRITING POST-PERSON: LITERACY, POETICS, AND SUSTAINABILITY IN THE AGE OF DISPOSABLE DISCOURSE

This monograph addresses the mail, in particular the rise of mass electronic mail, and its illicit form commonly known as spam email. When I began studying spam, I was asking questions about information environments and, taking a poetic approach, I wondered if there were methods by which we could recycle waste in information environments. I hoped to satisfy two agendas: one, to provide a strategic focus for qualitative research into the prevailing conditions in a communicative medium on which many people the world over have come to depend; and two, to understand how language under its new high speed, high volume digital conditions informs how we live and learn as writers. Much is to be gained in the study of contemporary language and literacy by concerning ourselves with the texture of the current information environment, and with how language, literacy and literature are caught up within the web of high-tech—even robotic—discourse.

My approach to the subject of spam reflects the personal background I bring to this work as a Canadian scholar, researcher, poet and educator. The history of correspondence and postal networks provides many opportunities to think through contemporary social practices. The problems and advantages of electronic mail affect millions of people worldwide, and help shape new cultural habits, social networks and patterns of language use. Acknowledging the Western (specifically, European and North American) biases of the research, this work is restricted to English-language mail. I neither account for the linguistic and cultural complexity in North America nor for the history of postal services that have existed from antiquity in parts of the world other than

Europe or North America. I chose to limit myself in this fashion for two reasons: first, a comprehensive history and examination of trends globally is beyond the scope of a single thesis; second, I do not have the linguistic or cultural background to do justice to a study of electronic mail in languages other than English. That said, the developments in systems of public correspondence described herein led to the creation of a digital network environment and infrastructure in which spammers thrive, and from which I was able to gather a corpus of data for qualitative analysis.

Spam email typifies textual excess. The exuberance of spammers is something few people would defend. Like other forms of excess and waste, spam threatens the stability and utility of the environments it pollutes. However, I write to examine spam, not to condemn it: thus, the poet and educator in me instigates a further bias with respect to the literary perception and study of texts and information systems. My approach to spam is idiosyncratic. Most research and journalism about spam is situated within discourses of war and crime: Google's search engine finds over half a million online articles and blogs using the term "spam wars." I have chosen to use a literary lens instead—to observe the developments that have led to the current situation of spam from a viewpoint of language and literacy; in particular, writing and poetry. And so I invite fellow researchers, scholars, educators and writers to view the developments that gave rise to spam from a personal-linguistic rather than techno-militaristic perspective.

In education we are compelled to understand today what the student will contend with tomorrow and, in the course of teaching, to inspire notions realized well into the future. It is this future that the concept of *writing post-person* attempts to address, analyzing the conditions of literate correspondence, both by framing a historical

perspective on writing as public discourse and by looking toward a new construct of the author in the digital age. Although spam is a genre that is native to the digital realm, the problem it presents is not. That problem has accompanied the development of public mail since the mid-nineteenth century postal reforms. Thus, writing post-person extends the pun in two theoretical directions: Writing in the post-personal age, an age of mass production, commercialization and automated dissemination of information, and writing as a person of the post, a poster of messages, a source of data, the object rather than the subject of networks. My use of this term implies no nostalgia for a pre-digital era of correspondence, nor does it suggest any deprecation of the role of new technologies in modern life. The post-person reflects merely one stage in the long journey we might call the authorship of the self. I have attempted to introduce poetic possibilities for an appreciation of contemporary writing practices, to revisit the past to understand how to embrace and educate for the future.

What is to be done about instruction and evaluation of the written word when such fundamental changes to the discipline are afoot (Kress, 2003; Kressler & Berg, 2003; Leu et al., 2004)? Spam plays a personal, social, and political role as the manifestation of impersonal discourse, discursive waste and the politics of disposability in people's daily literacy practices (Locke, 1998). The culture of correspondence and the fate of education are closely allied (Veidemanis, 1982). The writing self is, in this conceptualization, a persona of the network of correspondences, a network that withholds an absence into which our selves descend, an absence in which subjectivity and identity are subsumed. Out of this absence a simulacra of the self rises like a robotic phoenix. Through automated technologies of network system maintenance (namely spam filters)

and the automated marketing invasion of virtual privacy (namely spam), linguistic conditions have been created by which the heterogeneous voice of the network society can be heard, researched, and analyzed; as I have done, in light of the research herein, amid the wastes of cyberspace. The post-personal writer troubles traditional constructions of authorship, ushering to the forefront practices that seem to lag behind in the contemporary discussion and theorization of literate society, and provides an avenue of exploration as yet undeveloped. The relevance of this work may therefore resonate well outside of my particular background in literature, language and literacy education, curriculum and cultural studies, critical theory and information systems, to general topics in sociology and political theory, legal rights and network administration, public policy, intellectual properties, and most imperatively, environmental protection of not only natural but also artificial ecologies and communities.

To this end, I discuss in Chapter One the project of cultural recycling of online information environments as a rationale for the study. Chapter Two provides a genealogy of public mails and the rise of postal advertising. Chapter Three theorizes a poetical politics for the culture of disposability. Chapter Four reviews the origins of spam in the growth of computer network culture. Chapter Five discusses the evolution of artificially intelligent spam filters and content generators as a poetico-linguistic, robotic love affair. Chapter Six outlines the method used to gather a spam corpus, and the preliminary descriptive features of the data. Chapter Seven introduces a method of poetic inquiry for applied analysis of the corpus. Chapter Eight presents the results of my research in the form of an open ended poem, a cut-up of the spam corpus, reflective of what the matter of the mail is in a post-personal age of electronic correspondence.

CHAPTER ONE

Disposable Futures: *Wall-E*, Spam, and Recycling Waste in Cyberspace

A Fairytale for the Information Age

In the summer of 2008 Walt Disney Pictures and Pixar Animation Studios released *Wall-E* (Stanton, 2008), an animated movie about a world so completely overwhelmed with garbage, because of wasteful mass-production, that humans have escaped to outer space, where they remain for 700 years waiting for life to regenerate on the home planet. A single robotic garbage compacter, running on solar power and artificial intelligence, remains active in the world, and while performing “his” daily duties of harvesting and compacting garbage, Wall-E comes across a living plant growing in a shoe. Eva, a robot from the fully automated starship holding the descendants of earth’s now almost boneless population, comes to earth to probe for life, and of course, the robots fall in love. Wall-E gives Eva the little sprout. Until this moment, 40 minutes into the film, there is no dialogue, just the solitude of “a lonely robot trying to learn about love and humanity through centuries of its trash” (Frucci, 2008). The rest of the movie is a touching tale of how Wall-E and Eva manage to rescue the captain from the starship’s controlling master computer, and bring humans back to earth with an agrarian mission to revive the planet their forbearers destroyed, carving out little arable niches among the ruins and mountains of compacted trash. Wall-E is a modern fairytale of the world turned inside out, where the landfill is disgorged, where the relationship between humanity and technology has been reversed and robots remind us of our true nature.

Wall-E's apocalyptic world of unmitigated trash is a fantastic exaggeration, but it attests to the mythos and fears of the modern age and, as such, it suggests a prescient analogy for the problem of impersonal informational excess in cyberspace and online culture. It is not difficult to imagine cyberspace as a science-fiction fairy tale world overwhelmed by garbage, with robotic harvesters phishing for identity and distributing digital waste on a monumental scale, with cataclysmic storms of junk, intergalactic transmissions, artificially controlled human relations, and even the dream of a utopian rescue of the planet's future from industrial dissipation and environmental degradation, where culture struggles under the waste of mass production. In this re-vision, the cybernetic writer (who is also the reader) is a gleaner and compacter of text objects that litter the net, processing mountains of information, seeking something personally relevant. Chunks of texts, the detritus of cultural production, are piled upon others and, clearing a small space, the writer makes her small arable niche as a fan, a critic, a paranoid, or a poet. And in the bits they have gleaned and reassembled from the social waste can be found our own cultural reflection.

As envisioned by Kroker and Weinstein (1994), individuals exist in cyberspace as disembodied phantasms floating through datatrash, enclosed by a stultifying virtual climate, drained of vital contact. *Datatrash* explores the dark side of the story of digital network technologies. In fairytales, the dark side is always captured in the setting and environment of the tale—a dark forest, a prison tower, an informational wasteland where no one would want to live. For cultural theorist Walter Benjamin, the fairytale settings of Disney's cartoon world showed the impoverishment and brutality of experience that bourgeois culture of mass production and consumption ultimately lead to. Leslie (2002,

p. 85) states that this was a side of Benjamin's thinking that was "not sheer pessimism, but rather an attention to the contemporary exigencies for representation." The good and magical side of the tale is captured in its characters, usually an odd assortment of unlikely beings that bond through mutual objectives, and "in this utopia of reinvigorated social and natural relations, the thing most apparent is the reinvigoration of the object world, of that which is normally inanimate, or inarticulate" (p. 90). The practice of recombinant signification—recovering meaning within cultural wastelands to awaken and animate a muted reality—catalyses the processes of growth and benevolence by which we envision and express the utopian cultural ideal of the smoothly functioning world, the renewal of networks. The glory of access to precious knowledge reigns over the sinister burden of misinformation, fraud, invasion of privacy, impersonal correspondence, immorality and identity theft. The tyrants of waste are vanquished through small heroic cultural actions capable of recreating an amicable order of things.

Where are we to find such heroes? No doubt among the young, not yet jaded, inspired, perhaps, to change the world. The problems of informational excess, or even overload (Gitlin, 2002; Klapp, 1986; McGovern, 2000), are not about less public production of informational culture. If anything, they hold the opposite agenda: a cultural project of recycling-as-authorship needs to be valued and recognized, a reversal of the meaning-to-waste cycle, extracting meaning from waste as a critical practice of literacy in the information age. This project regards the manner by which we treat the *disposability* of cyber-texts through a poetics of seeing in them the imbued significance that the smallest creature in a fairytale manifests in the child's mind. This notion is most

clearly articulated by Walter Benjamin (2004), who, like Wall-E, was a poetic collector of things. In writing about *Old Forgotten Children's Books* he states the following:

Children are fond of haunting any site where things are being visibly worked on. They are irresistibly drawn by detritus generated by building, gardening, housework, carpentry, tailoring or whatever. In these waste products they recognize the face that the world of things turns directly and solely to them. In using these things they do not so much imitate the works of adults as bring together materials of widely different kinds in a new volatile relationship. Children thus produce their own small world of things within the larger one. The fairy-tale is such a waste product—perhaps the most powerful to be found in the spiritual life of humanity: a waste product that emerges from the growth and decay of saga. With the stuff of fairy-tales the child may be as sovereign and uninhibited as with rags and building blocks. Out of fairy-tale motifs the child constructs its world, or at least it forms a bond with these elements. (pp. 406-407)

For children, the possibility of creating a personal world of relevance charged with transformative signification, the bonds of which are energetically magical, remains accessible, free from the burden of utility, the necessity of the *flow* and management of information that entails destitution of imagination. And if cyberspace is to be the repository of civilization and the site of memory from which history is gathered and new culture springs forth, then it is the saga of its abuse, of the devaluation of integrity in the social contract and commercialization of experience that gives rise to the dark-sided fairy tale circumstances (Menzies, 1989). And so the small heroes of recycling confront the evils of excess in a battle for the virtual kingdom.

Secondary English Education and the Information Environment

Cyberspace is not a fairytale. The problems and the social consequences are unfortunately quite real. Given the centrality of communication networks to people's daily practices of literacy and the transactions that result from them, this dark-side scenario must give us pause, even if it tells only one side of digital culture's dialectic of access to, and excess of, information (Heim, 1999; Steele, 2000). As educators, maintenance of the quality of information environments is a historic undertaking that currently we are barely able to fulfill (Dyson, 2000). The educator is in competition for the attention and value systems of their students, and today's language arts teachers find themselves especially conflicted as to whether to preserve conventional literary models or to embrace new cultural practices and textual researches, many of which engage new literacies that disrupt the traditional authority and methods of the text and critic (Kaplan, 2000; see also Alvermann, et al., 2006; Barrell & Hammett, 2000; Tierney & Lincoln, 1997). How do we educate students to appreciate literature in cyberspace or shape the discipline around complex changes to the practices of literacy, or manage both?

It is with this general concern that I have undertaken my research, gathering a collection of poetic strategies, genealogical treatments, theoretical perspectives, and educational motivations for a critical and creative remediation of waste (in both senses of remediation's meaning: to recover educational potential, and to recycle within different media) in network culture in cyberspace, and to understand the conditions of the writing self after the hyper-mediation of print culture (Bolter, 2001). Herein lies the estrangement of literary values among the informational noise of network culture (Paulson, 1988), and thus to teach English within these particular "ecosocial dynamics," requires knowledge of

the semiotic conditions of discourse and the climatic effect of those values on cultural practices (Lemke, 1995, pp. 118-125). These are first and foremost matters concerning literacy and the relays of interpersonal expression and cultural inspiration; thus, the remediation of cyberspace falls onto the shoulder of the public stewards of literal values—the writers and teachers—to explore with their audiences and students what these changes mean to and for them personally. The critical engagement with sustainable practices for the enhancement of the informational commons is most appropriate to the secondary English language arts classroom. And thus I speak to the matter theoretically and objectively, as an educational researcher and personally, as a poet.

Distance and the Abject Text

Note that, for Benjamin (quoted above, 2004), children resource their personal worlds by animating magical associations and bonds between discarded objects, the detritus of labor, which having turned to the labor of the information worker, becomes the fringes of mainstream discourse, the fugitive or discarded text, and that children achieve this act of transformation and world-building not with technology but with that other discard of the adult world, the unfettered imagination. The relationship of discursive excess to cultural discourses takes shape by way of social practices that are subject to conventionalization in which technologies are seamlessly engaged (as they are with physically productive labor). Excess is a quotient of normative praxis and it bears a ideological weight as the immanence of non-utility that nonetheless dictates the entire usable system of values inscribed through technologies and infrastructures of mainstream discourse. The *superfluous significance* of the abject text applies especially to literate discourses that occur *at a distance*, namely written correspondence, with the intrinsic

subjectivity of dialogical address. Distancing makes the impersonal possible, posits the appropriation of the message, the completion or deletion of the message, thus creating the possibility of a non-value present within a complex system of variables, an absence that translates into systematic “disincorporation”, as Jacques Rancière (2004, p. 57) describes the abjection of the individual and the social (networked) body. Thus, disposability becomes a condition of the writing self, and “in one respect, literature means disincorporation.” The acculturation of waste develops, within this discursive disincorporation, into an absence of and from the social body, the phantasm of the virtual other, the reader, the free radical signifier by which the order of variables and the political exigencies of that order are reanimated.

Waste is morally condemned, and socially personified: the outcast, the fugitive, homeless and scorned, whose exile from the *liberated* system of values (torn out from the book of life) is also marked by a deliberate absence *within* the system, as that which exists without assignation, dispossessed in principle, cut out from the significance afforded by readership within the cultural span of the dialogical net. This place of marked presence/absence, of social disposability, was made manifest for Giorgio Agamben (1998) as the “state of exception, the concentration camps as human refuse bin, where the sovereign status of being is no longer afforded but is stripped to “bare life,” able to be hunted and killed, disposed of with great prejudice and impunity, having no rights of personal redress within society. Waste is made to stand apart from the system of social production and consumption that in effect produces and defines it as such (Rogers, 2005). Cultures that routinely ignore, hide, or demonize trash eventually see it as the source, rather than the result, of social deprivation and cultural depletion.

However, a recent reconsideration of the dialogical bond between culture and waste is already well underway. As Moser (2002, p. 85) writes,

For the longest time, waste has been relegated to the fringes of culture, if not expelled altogether, and has stood as a term opposed to culture. Such exclusion is being reconsidered, even repudiated, within today's society: a new relationship between waste and culture is in the midst of emerging: a less negative, more ambivalent, and certainly more complex relationship.

The new perception of waste results from a particular constellation, which depends upon several concomitant developments. Among these, we should mention: the spread of industrialization, which has radically changed the quantity and nature of the waste produced; the advent of a new ecological awareness and its resulting practices; the emergence of an economy of recuperation and recycling; the recognition of waste as an artistic resource, and, finally, the expanding scope of 'waste' (and more or less synonymous terms) by analogy. *The challenge is to comprehend the cultural transformation being brought about by the new multiform presence of waste, as both discursive and material reality.* [emphasis added]

Keeping Moser's mission statement in mind, the study of cultural transformation brought about by discursive waste must take into account social practices of recuperating and recycling, as this is the much-needed work of the imagination and its function within the regeneration of culture, inclusive of digital culture.

The value of the recuperative mythos created by recycling, especially cultural recycling, is undoubtedly part of the success and longevity of the Disney Corporation, whose animations and entertainment arcades portray a world in retreat and in rebellion against the stark, immobilized strata of the sociopolitical order and its disdain and dispossession of small, weak, and wasted things. They market the dream of the

miraculous reversal of vulnerability and empowerment and the heroic reversal of the values of a dominant social order; wishing upon stars will do this in a fairyland of popular imagination (one can hear Walt Disney's name in a child's mispronunciation—"Wall...Ee"). Baudrillard (1994, p. 13) draws the correlation between cyberspace and this fabled land of recyclable waste:

Disneyland: a space of the regeneration of the imaginary as waste-treatment plants are elsewhere, and even here. Everywhere today one must recycle waste, and the dreams, phantasms, the historical, fairylike, legendary imaginary of children and adults is a waste product, the first great toxic excrement of a hyperreal civilization. On a mental level, Disneyland is the prototype of this new function.

This new function, that of recycling the waste of cultural excess, resuscitates value systems not of the dominant but of the derelict texts. It is a movement toward a discursive intimacy with the profoundly other, *the impersonal*.

Cyberspace can become the site of emergence of new literary and discursive values, and simultaneously the space of the homogenization of form, the massing of dissemination, the leveling of distinction, and the "commodification of social consciousness" (Graham 2006, p. xv). The degree to which the impersonal may hide within evolving network structures, is the degree to which the concept of excess and disposability is drawn into, and fundamentally politicized (networked) as the discursive potential of cyberspace. The fairytale wasteland of cyberspace is the product of technological capitalization of social values, values that are "a function of the perceived desirability of any given aspect of our existence," and therefore spawn in all channels of discourse the texts to advertise, promote and otherwise shape and control those values (p. 17). Raymond Williams (2005, p. 173) states, "there is no doubt that the industrial

revolution, and the associated revolution in communications, fundamentally changed the nature of advertising.” Technological improvements to the efficacy of information delivery systems cause a paradoxical decline in the value of those delivered to, amassing them, compressing them into a market constituency. “It became a customer,” Benjamin (1968, p. 166) says of the 19th century “crowd” that took shape “as a public in broad strata who had acquired facility in reading.” However, this site of emergence also makes available the ideological critique of those same conditions of disposability, a study of the *bare life* of cybernetic discourse. Thus, personifying and taking an interest in the abject text is not only a symbolic gesture of recycling in a virtual environment, but also a catalyst of an ideological shift, a panning of the worldview to include that which it succeeds in disregarding, but only to its own eventual detriment and dismay.

Discursive Waste in the Public Domain

In the study of waste and garbage as social, or more precisely *public*, phenomenon, two theoretical implications are made: firstly, that natural and artificial environments derive their current condition from the same ideological predispositions; secondly, that the conditions of the literacy environment—the what, where, how, and why of daily writing and reading—will gradually come to affect the literary environment, that is, the cultural environment of central concern to the language arts teacher and the literary theorist, who on myriad levels work to persuade students/readers to engage with the values of that environment. When those environments are undergoing fundamental changes—largely, although not exclusively, the result of technological reconfigurations of literacy as social practice—a third theoretical implication is that these new practices will result in further reconfigurations of the literary environment, that is, the texts and

textual practices that make up the literary field. Of literature's relation to social practice, Jacques Dubois and Pascal Durand (in Desan, Ferguson & Griswold 1989, p. 153) write:

At once the terrain and the instrument of analysis, literature offers sociologists one of the most powerful instruments available for their criticism, on the condition that they avoid turning it into a mirror and hence, the accomplice of the social order.

Literature as a social practice of recycling culture implies transformation of the original text and reduction of bulk information; social mirroring takes place only in poetic registers of personal relevance wherein the wastrels of discourse are recovered.

A pedagogical project underlies the study of literature as the *point of accession* into literature of what-it-is-not (junk, disposable texts). At the point of accession creative processes of writing and reading transmute the texts of social discourse into literary resources. Over time, social literacies form bodies of texts we call *literature*, (meaning literature in the broadest sense of texts deserving attention) and give foresight into what proactive measures we might take as teachers to re-imagine English pedagogy in schools. In practice, this reversal of normative values ought not to be seen as negative, but engaged more subtly, through the inclusion of authentic texts from the local and home environment as a creative resource for self-expression and literary practice. This, of course, is the goal of the educator interpolated through language and literature as an agent of inspiration, seeking to motivate individuals to find for themselves the personal values of any given textual resource. As such, we educators are perpetually poised on this point of accession, but as curators, not writers and recyclers. We need literacy; but increasingly, we need *litter-acy* as well.

Moser (2007, p. 1) observes that “today the category ‘garbage’ is in the process of being reevaluated in relation to cultural production and more specifically to art production. To put it simply: Garbage, long considered alien and impure, something to be excluded from cultural production, has in recent decades made a progressive entry into the systems of art and culture in many diverse ways”. There are two ways that garbage enters the literary field, as a literary theme (writing about garbage as material or ideological construct), and as a practice (recycling, divisible likewise into “material or technical recycling for economic reasons” and cultural recycling). With a few key exceptions, I will focus on the latter; that is, what the recycling of textual detritus can tell us about the conditions of the information environment.

Defining and Identifying the Excess Problem

To identify excess, we must specify a system of the ‘environment.’ The environment is a useful analogy for theorizing sustainable textual ecologies of literacy and the ethics of information (Barton, 2007; Capurro, 2006; Spink, 2000; Takenouchi, 2006), but narrowing it down to a specific system helps to identify forms of waste within it—what is *defiled*, and thus defiles and defines the information environment by the visible trace of disincorporated texts. Any environment is a composite of many interrelated systems; each system is the means by which components of the given environment enter into relation with one another. Ecological, anatomical, social, technological, political—indeed, any organization—is systemic insofar as its various parts and processes are interrelated and *correspond*. Moser (2007, p. 1) states:

Garbage will be defined and identified in quite different ways by different systems. This means that anything can be considered or become garbage under

certain systemic conditions. The same object may be considered garbage in one system and a useful, functional cultural artifact in another.

To specify a type of discursive waste, let us examine the system of literate correspondence, the means by which differently located organizations of individuals have over the course of time *kept in contact* with each other. The system of literate correspondence is intertwined with many other systems, but it provides a specific systemic perspective on discursive excess in public and private life. The cultural product of systems of literate correspondence is the mail, and its systemic infrastructure comprises the institutions and technologies of the post. The centrality of this particular system to social practices of literacy online is readily established. We might note the proliferation of *posting*, of blogs, websites, photos, music, videos, and so on. Moreover, email is a dominant form of written correspondence made possible through digital network technologies. Thus, the system of mails¹ will be used to identify and define a specific kind of waste in information environments.

“You Know It When You See It” — EMail “Markets” the Masses

Email is the most efficient, inexpensive and widespread means of personal correspondence. Recent Canadian statistics (Statistics Canada, 2008, June 12, p. 4) show that the prime indicators of Internet usage still reflect the digital divide: issues of income, education, age, and even urban lifestyle (wherein the population is one and a half times more likely to access the Internet than in a rural population). Yet across the board, fully “73%, or 19.2 million Canadians went online for *personal* reasons during the 12 months

¹ For the purpose of this study, the plural “mails” is used when referring specifically to the contents *in* the postal networks, and mail to refer to the general features and acts of literate correspondence.

prior to the 2007 survey” [emphasis added], and of these masses, 92% do so for the purpose of email. “General browsing for fun or leisure” places a distant second at 76%, followed by “research other matters (family, history, parenting)” and “Obtain weather or road conditions,” both at 70 percent. At the bottom of the list of activities cited as reasons for going online, an interesting comparison is to be made with the posting of cultural artifacts, specifically, “contribute content (blogs, photos, discussion groups)” at only 20 percent response rate.

Email propagates use of the Internet worldwide; recent statistics available at internetworldstats.com (MMG, 2008) approximate that 21.9 percent of the world’s population, or over 1 billion people, access the Internet and use email. Internet usage presents us with a specific systemic mode of social discourse with deep cultural significance to both personal and public life. It is also a system in which garbage has become a significant problem, one that now broadly affects network culture in the online environment, one that touches, as all visible garbage does, a deep chord of disgust among people, namely *spam*. Intensive mass production of impersonal discourse in systems of literate correspondence creates a wide range of technological, economic, social, and legal problems concerned with maintenance of correspondence systems and the disposal of digital waste. When spamming was first outlawed by the United State’s Senate passing the CAN-SPAM Act (Controlling the Assault of Non-Solicited Pornography and Marketing act of 2003) it fit into the morally perjured notion of discursive filth, that is, the impurity of flesh and the invasion (“assault”) of the right to privacy. Pornography

accounts for a relatively small percent of the content of spam email (8—18 percent)²; however, the ideological connection of spam with other censored (disposable) texts is apparent.

Spam threatens the democratic use and sustainability of cybernetic networks. The perpetrators of spam act disingenuously, often attempting to defraud unsuspecting users, and certain instances involving scam-spam have resulted in large personal losses, even a victim's death (Goodin, 2007). Owing to their criminal affiliations, kingpins of the spam world have been murdered in Russia (Forrest, 2006), and fined hundred of millions of dollars and incarcerated for eight years in the U.S. (Alongi, 2004). Aside from extreme cases, spam presents a potential risk to all people accessing the Internet for the purposes of personal correspondence and a Sisyphean task for network administrators, legitimate e-commerce, bloggers, social networking sites, Internet service providers, and anyone whose job it is to keep the Internet accessible, efficient, and at least to some degree democratic and secure (Sorkin; 2001; The Task Force on Spam, 2005). Spam betrays a public trust embedded in the systematization of public mails.

Currently anti-spam laws are in effect in 28 countries;³ after CAN-SPAM, exemplary legislation⁴ passed in Australia (Spam Act 2003) in April, 2004. Although these national lobbies have caused big time spammers to move operations to less hostile territory, skeptics such as *ZDNet Australia's* guest editor Anthony Wong (2004)

² Greenspan (2002) reports an 8 percent peak; the Federal Trade Commission (2003) find 18 percent, Grimes, Hough, and Signorella (2007) 15 percent; however, spam is also seasonal and these figures are unadjusted. Fallows (2007) of the Pew Research Center reports a 20 percent decrease in people's reception of pornographic spam in their email from 2004 to 2007, coupled with decreasing percent of the population who find spam troubling.

³ See www.spamlaws.com.

⁴ Specifically, a consent-based *out-in*, not *opt-out*, precedent for commercial email.

predicted, “On its own, the legislation will have little impact on spam.” He was right.

“Spam’s growth has been metastatic,” Michael Specter (2007, p. 2) writes, “more than a hundred billion unsolicited messages [clog] the arterial passages of the world’s computer networks every day. Despite the Industry Canada-sponsored Task Force on Spam’s (2005) recommendations, no specific laws have been passed to prevent spammers from making Canada their haven, says Michael Geist, Canada Research Chair in Internet and E-Commerce Law, and a member of the task force. Geist (2008, p. 5) states:

In the years since the report, the spam problem has grown dramatically, with some studies estimating that 90 per cent of email traffic is spam, leading to bandwidth overloads, strains on server capacity and a loss of user productivity. Moreover, spam is increasingly used for criminal harms such as the delivery of computer viruses, spyware, and identity theft.

Spam is definitive of wasteful, harmful text—garbage in the primary system of literate correspondence online. But how is spam itself to be defined? Harris (2003, p. 1) argues that the primary definition of spam is that it is *unsolicited*. Secondary characteristics include that it is bulk (mass produced) and that it contains a commercial pitch.

International spam-fighting NGOs differ in their definition: for example, Spamhaus⁵ uses Unsolicited Bulk Email (UBE); CAUCE⁶ uses Unsolicited Commercial Email (UCE).

Paul Graham (2003), the self-proclaimed hacker who popularized statistical spam filtering programs, defines spam as Unsolicited Automated Email.

⁵ Spamhaus’ spam definition may be found at <http://www.spamhaus.org/definition.html>

⁶ CAUCE’s (Coalition Against Unsolicited Commercial Email) spam definition may be found at <http://www.cauce.org/archives/37-How-do-you-define-spam.html>

Either way, Harris (2003, p. 1) states, “you know it when you see it.”⁷ In other words, you have a gut reaction, an aesthetic intuition: personal and moral disposition experiences recoil from the ontological rebuff of unsolicited junk in written correspondence systems (Capurro, 2006); perversely or subtly, subjectivity is subjugated by spam (Grimes, Hough, and Signorella, 2007), and the response is immediate: to dispose of that which dispossesses us of individual status—the impurity, or filth that in exposing itself to us, marks us, stains us, makes us filthy, brings about an unhealthy environmental condition or otherwise *wastes* time, *wastes* money, *wastes potential* productivity, *wastes* bandwidth, *wastes* memory space and, culturally, *wastes* imagination (Spinello 1999; 2001). A puritanical tone is evident throughout the popular literature on spam; in Harris (2003) “sewage,” a “plague”; in Markoff (2007) a “plague,” “junk”; in Spangler (2005) a “pox,” “a greedy swarm of locusts...blotting out...communications,” “garbage”; in Race (2005) “a pestilence,” “environmental polluter”; in Sorkin (2001) a “scourge”; in Gates (2003) “a scourge...that wastes”⁸; and, of course, the ubiquitous ‘junk’ mail that is sent to computer’s ‘recycle/trash bins.’ Regarding spammers, popular discourses turn to military terminology: spam wars, cyber-terrorists, technological weapons, mail bombs, service attacks, and so on. Although we can instantly recognize spam as a systemic threat, we can hardly claim to know what it is, except to define it as *essentially* disposable according to the specific system of electronic mail.

⁷ This same expression is used elsewhere to describe the intuitive aesthetic of spam identification notably in Specter (2007, p. 3) “Definitions vary, as does the line between spam and annoying but legal ads. (Like pornography, which has profited greatly from the ease and privacy of electronic junk mail, *you know it when you see it*).”

⁸ At the 2004 World Economic Forum held in Davos, Switzerland, among national, industry, and NGO representatives, Bill Gates announced that through the introduction of new user authentication systems and fees, spam would be “a thing of the past” in two years (Weber, 2004). His prediction, obviously, was incorrect, and the fee-mail concept on which it was based has encountered public resistance to pay-per-use email and the contentious regulatory role the payee plays in transactions.

Spam, as a form of quintessential digital waste, has shown us the dark-side of the cybernetic fairy tale, a consumer nightmare of alienation and predation, of broadcast subjection to a limited, gendered, even demoralizing range of desires, repetitively appearing every time we go to read our electronic mail. Network infrastructure is under threat, spam reigns in the war of automated messaging and automated language filters, now bumped up a notch with spammers running artificially intelligent robotic networks (botnets) with more processing power than the world's largest, fastest supercomputers (Gaudin, 2007; Gutmann, 2007). Correspondence, once the domain of intimate authorship and the embodiment of the social network, also becomes the site of a high-tech anonymous robotic battle, waged with words and crypts, for commercial exploit. What, one might ask, is this doing to language, to textual values, to literacy, and moreover, what is an English language educator supposed to do about it?

Let us consider another aspect of disposability that affects the person as a communicator, as a writer in a post-personal system of literate correspondence: specifically, I mean the aspect of disposability in which the responsibility of answering an email resides—the responsibility as well as the privilege, the right of correspondence, of democratic participation as networked individual in the social order conferred through literacy. By answering, we complete and consummate the literate relationship; by disposing of mail we abdicate that role, and our bond to the other. But what happens when the mail we receive becomes like broadcast media, that is, basically unanswerable?

Spam and virus filters are highly effective at masking the presence of unsolicited email, diverting and disincorporating over 95 percent of the bulk so that end-users don't have to (Yerazunis, 2004; Zdziarski, 2005). It is *out there* nonetheless; a large portion of

spam winds up becoming *darkmail*,⁹ speculatively targeted, broadcast email never to see the light of a screen. Answering spam is risky business, even when choosing the opt-out link to be removed from an email list—a link that is mandated in most anti-spam legislation, but which ironically confirms for the spammer that an attentive reader resides at that email address, an address that he or she can now sell on confirmed mail lists to other spammers, or invade the computer with a virus, hack your email address book, turning personal networks into public markets, making them antisocial. ‘The unsolicited,’ which befits the motif of ‘the stranger’ in literature, becomes synonymous with crime and contagion. Answering spam directly causes its diffusion, just as brushing a seed-head causes the scattering of seeds. The *unanswerability* of so much daily correspondence is counterpoised by the efficiency that otherwise characterizes electronic mail, its speed of delivery and ability to dispense information to one or many people simultaneously.

What is it about unanswerable mail that seems to pour vitriol into the virtual masses? Correspondence plays a vital role in social, political, and cultural life. History would be depleted greatly if we did not have postal letters to gain an intimate sense of what individuals thought and experienced throughout the ages. Both public education and public postal institutions arose mutually in a civilizing gesture that altered social dimensions of citizenship across the globe (see Siegert, 1999). Given the significance of personal correspondence to literate societies, spam presents a paradox in that it threatens the destruction of its own techno-social systems through extolling the virtues of disposability. As one of the most efficient forms of correspondence, email heightens

⁹ Spam Daily News (Darkmail_traffic_risen_fourfold_in_12_months_says_Email_Systems, 2005) defines darkmail as “unsolicited mail which is never retrieved or received by a user”. Also see Barker, 2005

values of immediate utility over lasting literary expression (Olson and Olson, 2003), and casual exchange over deeper explorations of intimate address and shared personal values.

The Art of Recycling in an Age of Automated Correspondence

Investigating the information environment is something I approach as a teacher and teacher educator, because I cannot do my work without a sense of the environment from which, and into which, my students come and go; it is something, moreover, that we can do together. But the recycling of information is something that requires an additional personal perspective, drawing on the work of learning as a poet. Poetry is important to cultural recycling for several reasons: it is one of the oldest means of discursive recycling; poetry focuses on language *qua* language. In other words, poetry reflects the conditions of the system of meaning-making as its primary referent; it compacts expression and compresses meaning. It hones aesthetic proclivities of linguistic selection and self-discovery, gleaning linguistic treasures along the way. But the effects of this process are not merely quaint, restoring a pastoral field of pristine reflection on hallowed texts. Cultural recycling, Moser (2007, p. 8) argues, is not obliged to adopt a notion of an eternal return as the repetition of cycles: “Quite the contrary, ‘recycling’, especially in the cultural sphere, always concerns the idea of transformation and metamorphosis. It never brings a system, or a material, back to the same position, or to its former identity.” Nor is recycling merely generative of newness; rather, it combines the process of erasure and reduction with reemergence, interpolating “a negative and a positive moment” (p. 9). This moment, by definition ecstatic, is the central thematic of Bohrer’s (1994, p. 51) conceptualization of *suddenness* as central to the Modern aesthetic and “the ecstasy of the moment which is so striking in modern poetry.” Quoting Junger’s “Sicilian letter to the

man in the moon,” Bohrer states that these are “‘moments of an indeterminate expectation’ in which one listens to the ‘voice of the unknown.’” Here, at the moment in which the text becomes a stranger-to-itself, the recycling processes begin. The recycling moment is “a conceptual common denominator” to “processes and procedures that already have their own historical and discursive existence, such as parody, pastiche, collage, montage, epigonism, re-writing, remaking, sampling, reconversion, mixing, etc.” (Moser, 2007, p. 9).

These traditions of cultural recycling take on a broader literary-historical significance in Mikhail Bakhtin’s (1981) “chronotope” theory of folklore and its rise into novelist discourse, traceable from the Greeks on, as the force of social practice upon the production of cultural forms and the point of the accession of waste and excess to culture, recycled *through* language. He explores this sociocultural transformation of the world in Rabelais’ *Gargantua and Pantagruel*, in which all the refuse of the body, of language and the social order, is flushed to the surface of narrative and,

in the process of destroying the traditional matrices of objects, phenomena, ideas and words, Rabelais puts together new and more authentic matrices and links that correspond to ‘nature,’ and that link up all aspects of the world by means of the most marvelous grotesque and fantastic images and combinations of images. In this complex and contradictory (*productively* contradictory) flow of images, Rabelais brings about a restoration of the most ancient-object associations; this flow enters one of the most fundamental channels of literary thematics (Bakhtin, 1981, p. 205)

The channel of literary thematics he addresses is the generative principle of discourse, the transition of waste into novelty and excess in effect. He presents us with the complexity

of the obvious: that the (stratified) world de-composes, and degrades, but in principle it is never disposable. The author-as-cultural-recycler calls forth the wreckage of history and makes it correspond with the present: the object, phenomena, idea, or word regains answerability. Through these links, correspondences and processes, a culture's life-force becomes invigorated.¹⁰

Suppressing this process, masking waste by involution, cover-up, taboo, and disposal, as Bakhtin (1990) suggests in his early philosophical essays, creates systemic damage, in that culture no longer speaks or answers to the lived world, cutting itself off from the vital flow of language in which it grows. Thus there are two ways in which to proceed with the study of cultural recycling as a literary thematic, either as it is expressed (directly and indirectly) in the novel or as it is integrated as a poetic process. Both avenues of exploration are integrated within the system of literate correspondence, which brings into discussion the personal world of the writer / author. The letter symbolized the intimacy of poetry—discourse of and to the private individual rather than the social milieu, the internal conflicts and psychological perspectives exposed in the popular novel (emphasized by the voyeuristic quality of epistolary novels), and assumed the redemptive task of folklore—in other words, the shared process of creating new cultural formations and acceptances within the social order (Degh, 1994; Egoff, 1988).

The differences between processes of recycling help to distinguish the genres of fiction and poetry. In fiction, the social person breaks apart the unitary language and its

¹⁰ See, in particular, Bakhtin's treatment of the topic of sex, death, excess, and regeneration through his analysis of the "new chronotope" (from medieval, cyclical undifferentiated time / consciousness becoming "real time," especially in reference to Gargantua's letter to Pantagruel (1981, pp. 171-224).

artifacts, decomposes them through characteristic habits of speech for the novelist to take up through narrative representation; in poetry, the individual enters the speech act through language, breaking apart the discursive structures of the personal world to fix the connective tissue of shared personal relevance. Both processes recover, refine and restructure linguistic excesses according to the modernist author-function, as a person who communicates with other individuals by means of letters, in other words, by withdrawal of self into an abstract system and promulgated by the company of others. In addition, both processes make the stranger an intimate of consciousness; the writer and the reader bond. However, authenticity shifts—fiction prioritizes the social. The poem makes knowledge symbolic of the private world of letters and sets up literature as “an epoch of the postal system” as Siegert (1999, p. 13) describes it, “Eighteenth-century poetry was simultaneously a cover-up of the postal service and a delivery of the mail in the production and consumption of knowledge.”

The connection between garbage and what we refuse to accept, to know, also leaks out into other fields. Psychoanalysis rose and fell with the popularization of letter writing, the mails and post, easily gendered and highly symbolic; psychoanalysis aimed to interpret the repressed psychological wastes that toxified individuals and societies, and to also then recycle and remediate them. Psychical systems and literate correspondence systems are also, therefore, inter-operative with systems of disposal; thus, a disposal that never fully degrades or arrives at a final destination, that wells up continuously throughout the landscape of the mind (this connection, embellished in Lacan’s reading of Poe’s *The Purloined Letter*, challenged by Derrida, with elaboration in Muller & Richardson, 1987). Through disposal of personal waste something of the essence of an

individual is networked and collectivized, a trace among traces that lingers long after the process of elimination; a trace that is formalized as it is systematized, that is brought into order at the point that it enters the chaos of collection, relay, and recollection. The longer waste remains unattended, the more toxic it becomes to the system, the more it obstructs the flow that produced it, valued it, and in which it retains some aspect of that value.

A Literary Lunch: Making Spam Answerable

Spam is unsolicited. But it is not the lack of prior knowledge of a message's arrival that makes this feature of the postal system seem odious. Unsolicited email may be highly valuable, a lost friend, a new client, and so on. The bulk aspect of electronic mail, posting the same thing to many people multiple times, is discursively indiscriminate and indiscrete, but bulk advertising is replete throughout mainstream media and public space, and this, almost always, is spurred on by commercial interests. The problem of bulk mail is a matter of technical metrics and has no qualitative component. The commercial aspect is only the predominance of what brought literate correspondence into the public domain; it is, above all, the currency of production and consumption in the creation of the electronic marketplace. Thus, the commercial aspect imposes a specific valuation on the network as a marketplace, as a public venue of monetary transaction over a personal link to the written self of others, and as such, commercialism spells out the post-personal world, and by the values of this marketplace the writing subject is dispossessed of sovereignty and indisputable answerability. The literate subjects of the network are, moreover, items on display in a literary flea market, a junket that daily, hourly, floods the system with junk. It is, in effect, the system turned inside out—the landfill delivered to your home. This market of phantasmagoria, of literate subterfuge and

deception, of automated writers out to steal symbolic traces of identity already stripped of sovereign embodiment and identity by answering personally to mass address—this becomes the post-modern postal condition, a condition that integrates almost seamlessly with the social order, until it becomes integral to the social order.

But it is not merely commercialism (which is, after all, the dominant model of correspondence today), bulk address, or unsolicited correspondence and its criminal disguises that have created systemic havoc, and have positioned spam as an international legal shibboleth and scourge of the Internet, but rather the problem posted by spam is its persistent contamination, a leaching landfill that spills the effluent of market values and consumer ideology back into the system of mails. For the market must dispossess, in the form of trade (legitimate or otherwise), in order for the flow of goods, services, ideas, desires to achieve an ideal of unimpeded growth. This ideal, which is exclusive of a concern around waste as the byproduct of mass production and consumption, disavows the feedback so essential to complex systems (feedback = answerability); it is an unregulated, one-way flow into an absence once occupied by the literate public. “By its design and architecture, the Internet is an open network of networks that allows the free flow of information” (Task Force on Spam, 2005, p. 16). But where is flow supposed to go? We can no longer escape spam for the single reason that it is self-generating, a robotic loop energized by identity, which having become alienable, leaves the person out of the loop of literate correspondence: spam instills post-human panic (Graham, 2002).

Lastly, spam is automated discourse, and although this explanation by Graham (2003a) does get to the heart of the matter of why spam’s particular offense to the public is so egregious from a technological and socio-psychological point of view, it leaves a

fascinating feature of spam vulnerable to complete miscomprehension. For it is precisely this automation, the animation of unsolicited bulk and commercial email discourse, that makes it worthy of deeper study—that is, study from a qualitative, even poetic perspective. Implied in the UBE/UCE definition of spam is a total uniformity, an undifferentiated bulk of mass reproduced advertisements, the reproductive work of machines. Nothing could be farther from the truth about spam. Every spam message bears traces of its own uniqueness, its cartographic signature. For spam to be deliverable, to make itself answerable, it cloaks itself in lexicons and strata of cultural discourse, animating them and reanimating them, recycling cyberspace, mapping new discourses, making the system of the mails a system of the recombinant production of knowledge as information, as data, as the regurgitation of excess cultural production upon the society of the screen. Society meets in automation not only its reflection in systematized production, but also the voice of a technological *other*, a voice we will need to heed.

Spam is symbolic, therefore, of the systematization of systemic cannibalism: the system that feeds upon itself, inverting the relation of the individual and the system, a self-rationalizing network for network's sake. Spam evacuates information that it absorbs and excretes as identity in its codified form—name, email address, passwords and all other forms of secret, exclusionary networks bearing affiliation with the physical being, as that which is the primary excess, *the excess of the real*, in cyberspace. The connection is quickly drawn to the general processes of social discourse on literary language itself, the novelist recycling practices, only now with the author, the personal narrator, removed: the sudden amassing of an unanswerable, indisposed discourse speaking with the voice of all others but without character, a flow reduced to channel noise.

Bakhtin's ethos of communicative practice is grounded in dialogue and the answerability of speech, based on the person of the speaker. The post-personal age of information, epitomized by spam, can be seen as interpolating and disrupting that ethos, producing anxiety and distressing public literacies in systemic waste through the loss of answerability, the destitution of the product of writing—thus, of answering personally to the world—at the point that identity is subsumed, cannibalized by the codified system of the mails, a system that no longer serves the person, but instead the persons serve, through the production of their presence, identity, attention, the system for its own sake. Siegert (1999) suggests this is the apotheosis of the system of literate correspondence.

Social discourse, for Bakhtin (1990), contains the core ethical values propagated in the growth of culture, in the principle that utterance bears with it the social contract, the ethos of answerability. Nielsen (2002, p. 29) writes:

Bakhtin argues that 'two embodied meanings cannot lie side by side like two objects—they must come into inner contact, that is, they must enter into a semantic bond' (Bakhtin 1984a, 188-189). In this contact zone agents meet, take on, and project elements of identity to and from one another. In this sense identity is thought of as a creative answerable event.

Spam is the story of two combative discourses enmeshed within the same system: one of disposable commitment and another of personal connection. Contemporary social literacies occur amidst the waste of the spam wars, wars that are fought by, with, and through language and correspondence systems (Goodman, 2004). Herein we might find poetry's relation to new ecological and sustainability literacies (Orr, 1992; Stibbe, 2008; 2004) in the ecology of written language (Barton, 2007). Here, literary values are reinvented: a newly recycled poet and poetic; a poetry of network craft in the dialogue of

cyberspace; a poetry reanimating, personalizing, extracting meaning from online discourse; a poetry capable of remediating the wasteland of the informational commons; and a poetry, moreover, of deep inquiry into the matters of literacy and literature in the post-personal age. For spam, in the attempt to reach a reader and fulfill its network objectives, must in the end divulge the treasures of new hybrid identities within the excess and wastes of automated discourse.

This becomes an essential task, one that the English language arts educator, as a cultural ecologist, might advantageously undertake or benefit from as educational research. Informational excess is a problem that will confront education eventually, inevitably. That the student and writer are now posited, post-personally, as a detritivore of discourse, as Wall-E looking for meaning in a cybernetic wasteland, need not impose a degraded authenticity upon them (Yaeger, 2003). By animating the impersonal mails, the poetic impulse recreates answerability, recovers personal relevance and renovates value within the discursive net clogged with datatrash.

To conclude, if there is a possibility of a fairy tale ending to the story of spam and the global warming of the information environment online, it will come by way of the small heroes of answerability, who, gleaning from the detritus, find a means to personalize the impersonal, to awaken the magical bond, forged in language, to the disposable Earth, people, things, and texts that make up the bulk of the world, doing so in order to recuperate systems by confronting the system's *jouissance*, its profligacy. As such, spam will be addressing persons and systems capable of response—of recycling into a “discourse universe...that makes up the authorial self/world,” through a dialogism admitting “a more fundamental reader involvement” (Tate, 1994, p. 143). This will be

achieved through inquiring practices that look to where meaning fails in order to find new meanings and combinations, providing the stimulus to creative practices.

The prototype of these post-modern, post-personal heroes may be found in Benjamin's (1999) monumental attempt to revisit the lost aura of 19th century Paris, when that city was the cultural capital of the world, a time of the spread of imagination and systems of knowledge like no other; a time, as well, that represented the height of the collective imagination of public discourse as written correspondence, as folded pages, signed and sealed in testament of the writing self. Benjamin sought to rescue this aura from "the dustbin of history,"¹¹ rather than from the "riches amassed in the aerarium of civilization" (1999, p. 14). He notes that "our investigations presuppose to show how, as a consequence of this reifying representation of civilization, the new forms of behavior and the new economically and technologically based creations that we owe to the nineteenth century enter the universe of a phantasmagoria" (p. 14). Accordingly he makes the flâneur, a private individual disposed upon public space, a picker and gleaner of dirty rags and worn-out cloth, the archetype of civilization at its cultural center, envisioned as the Paris Arcades. For Benjamin, the arcades manifest "the universe of phantasmagoria" (p. 14) (and what other dimension shall we ascribe to cyberspace?) that arises as mass production and commerce occupy the center of public discourse and cultural production, making it appear spectacular, but also imminently disposable. In the dystopian vision afforded by waste, "humanity figures there as damned. Everything new it could hope for turns out to be a reality that has always been present; and this newness will be as little

¹¹ *The Dustbin of History* is the title of Markus' (1995) book on recovering lost historical processes disposed of by the official, linear histories created in the image of the dominant social order.

capable of furnishing it with a liberating solution as a new fashion is capable of rejuvenating society” (p. 15). Thus the integrity of the cultural recycler whose role as that of the flâneur “who abandons himself to the phantasmagorias of the marketplace. Corresponding to these phantasmagorias of the market where people appear only as types, are the phantasmagorias of the interior, which are constituted by man’s imperious need to leave the imprint of his private individual existence on the rooms he inhabits” (p. 14). The cultural recycler appears spiritedly for Benjamin in the poet Charles Baudelaire, who was able to spin a magical web in the midst of the commercial phantasms of civilization’s waste, among its outcasts, its derelicts, and its ‘unanswerables,’ reanimating cultural vitality through language, a Janus-headed visionary of interstices of excess.

And what were the flâneur’s rags for? They were sold as valuable linen to the manufacturers of paper, the technological provision (before wood-pulp paper/electronics) for the writing self to become lettered and the public to become literate—joined publicly through myriad sheets of paper made from cloth once worn, blotter to the daily toil of the human body. These material traces of the body are gone from cyberspace. Writing post-person in the postal apocalypse of cyberspace makes anonymity, which is the automated identity of the network itself, *our* voice. The writing self and public literacy, side by side in education, are beset. Making spam answerable, turning it into a knowledge resource, reveals the hidden conditions of meaning-making within the information environment—conditions, moreover, that as language arts educators, we can no longer afford to ignore.

A Post-Personal Interjection: Afterthought/Forethought

The poet surfaces and demands of me a delivery of the disposability-recycling concept to praxis and to print, if nothing else, a personal posting: in the manner of a letter, this interjection is confessional, and becoming personal, is the discourse of my private excess made public, but only as it is treated poetically, to illuminate the process of accessing cultural potential in discursive waste, to bring together the traces of the past to the current state of content delivery; thus, to shed light on cultural recycling, to animate it. Chapter One was the result of many drafts over 14 months, finally requiring a complete re-write once my study was complete. After multiple variations, I took the discarded text and recycled it into a short poem. The poem still speaks to the general purpose of this study; over time, it speaks with deeper and deeper personal relevance. I include it here as an examinable sample of cultural recycling, albeit not undertaken with spam, but with self-authored texts that have already met with spam's disposable fate. This poem, and all subsequent in this text, were produced using a technique of cut-ups that I will discuss in Chapter Twelve. The poem, a result of several hours of cutting, gives me a way of seeing the trajectory of the writing, of my self, my study, my past, into the current moment of delivery. The image that follows and all others were generated in a similar manner, and represent an attempt to evolve this poetic within a visual field of reference.

Report from the Fugitive History of Containmentment

these children, looking to the public for a future—

see the flight of memes and methods grounded

feel a loss large as a mirror's universe—

the empty space that populates the author

of their consciousness:

fleshed-out? like 21st century human decorations

lofty data makes sweeping changes a radical pastime,

but nevertheless one that submits to metaphor

and is scrapped for a different language.

Partisan schools dump unanswerable questions and vice versa.

Marked by educational collection and ego waste-age

participants capitalized on scholars

gathering together as rhizomes do

to feed upon the previous root without asking its permission.

The same provocation leads physicists to question children.

Why are they running away from chalk?

What is the talking sidewalk teaching them?

All facts are driving the breakdown of what follows:

1.

A Report from the Fugitive History of Containmentment:

What content-meant—

its Text types, conditions, prime for articulation—

is what I did not mean to say, too.

The energetic criterion of hysteria plunges

like bare life into chaos, and how!

a complex palimpsest of charismatic means

becomes the festival of copious identity

we may never know, but

2 alternatives will be provided: pioneering broadcast and

a relatively identifiable genre of peripheral monopoly—

Mass savvy, spontaneously manifest for 3 theoretical years.

A public Beach

shows how time risks impoverishment

the offshoot pitfalls,

segue to charting history navigated by phone.

Her guerrilla pulse creates Space; look at how physical the attention,

an intangible economy of 5 lifecycles.

Without an adequate degree of preservation,

the equation reverses

the rural cameras, urban recorders, pens with given radius

formalize into a curriculum of decay

At least the four R's resist, are negated

rather than compete with the hypercodified

overture to the unborn poet (in everyone)

a small botanist with samples of Dawn's flora,

the poet is drawn to the literary wilds, past the last margin

of script, intent to learn the methods of cultivating freedom.



Figure 1.1. The Worldview of the Poet as Cultural Recycler

CHAPTER TWO

Public Personas: Commercialization of the Post and the Rise of Mass Mail

Despite all the changes that separate us from the postal culture of the mid-nineteenth century... the world we now inhabit belongs to the extended history of that moment. (Henkin, 2006, p. 175)

The purpose of this chapter is firstly, to outline briefly a genealogy of mail services out of which the institution of the public post and global delivery systems of the physical mails arose, and secondly, to outline the origins of junk mail and discursive excess in network concepts and systems. These historical developments not only made mail affordable to common people, but also created the conditions necessary for inexpensive, rapid delivery of bulk advertising and circulars (the precursor of spam) into the sanctum of personal correspondences. Mass mailing is closely connected to developments of the postal concept that came to include the general public as correspondents, a concept that brought with it the *personal* letter, and the personally addressed *impersonal* letter—or junk mail (Henkin, 2006, p. 146-158)—at which point the sovereignty of postal subjects became the mass market of literate consumers.

In constructing this genealogy I have drawn much inspiration from Bernhard Siegert's (1999) exposé *Relays: Literature as an Epoch of the Postal System*, which first made apparent to me the full metaphoric resonance of the letter as the sovereign representative of the writing self, the absence of the sender, and the shifting conditions of authorship. Once the letter, a folded and sealed personal world, is submitted to public systems of the post, and thus to history, both the text and the author become the technologically mediated subjects of the imperial state of a summative network. The letter served in the place of the absent person: "It was," Seigert emphasizes, "what it

transmitted—an individual, that is, and could therefore answer for that individual” (p. 28). Transposition through mechanization, then automation, of the network concept set the stage for the imposter and the impersonator, the generic, unanswerable stand-in for an answerable individual in the form of mass mailouts, overbearing on space and attention in the carriages of public correspondence (Noam, 1987). What the network of literate correspondence gives—the possibility of personal contact over a distance—it takes away, replacing the sovereignty of the “poet’s dream of unfettered communication” with the anonymous mass market ethos of literacy as consumption and knowledge as information (Beebee, 2003, p. 329).

The writing self, as an individual composed among the *lettered* citizenry, experienced the rupture of the network relay, the break with personal values, the effacement of authorship, and the vanishing record of intimate discourses, as soon as postal organization formed according to a business model. This model was adopted in the early modern period of European feudal postal services, under the imperial jurisdiction the Thurn und Taxis. Siegert (1999) notes:

In 1522 the Taxis’s system of imperial communications, which was exclusively at the state’s disposal, was only beginning to be infiltrated by businessmen. And it was the letters of these very businessmen, which were constricting the space of scholarship, that Erasmus attacked in his polemic [on letter writing]...*De conscribendis epistolis* was written and sent as a letter and received and printed (or pirated) as a book apparently without any singular references standing in the way that bind discourses to unrepeatable times, places, and people. Letters were recyclable discourse. (pp. 31-32)

The sovereignty of the mails as the imperial networks of rulers and their autocratic organizations constructed a remarkably different worldview than the decentralized models of the public post. Only the nation's dead letters went to one place and in cyberspace dead letters are everywhere but they are also invisible, readerless, nowhere, the digital systems tenacious Bartleby. *Worldviews* are constructed within, and construed by networks of mediated correspondence. The conditions of the system of the mails first fell to political and military maintenance. What followed was not a democratic network, but a monopoly of governance for the public good. In light of creating a democratic, global network such as the name "World Wide Web" suggests, the informational commons comes into effect, our shared and often pirated, perused, and recycled discourses. Without the imperial guarantor at the center of the closed network system and in light of privatizing, commercial interests, protecting the open communications network as a public commons has proven difficult. Technical, legal and moral battles overshadow the fragile, disposable cultures that the literate commons supports (Benkler, 2003; Bollier, 2002; Boyle, 2007, 2003; Gillespie, 2007; Lessig, 2004; Philip, 2005; Wainwright, 2008).

The democratic network concept that replaces the monopolistic model of postal governance begins in post World War II America, carried along by the wave of new military communications technologies and logical machines. The construction of virtual democratic networks as a fertile commons of personal correspondence already had seeded within it market practices and capitalist ideology that had propelled nationalization and monopolistic Postal Reform in Britain and her colonies; reforms that had also been instigated through education of the poor and working classes (Hogan,

1989). However, Siegert (1999) clearly demonstrates that the forces of change were well underway elsewhere in Europe. Indeed, Siegert is terse as to the role of utilitarian, neoliberal reforms of the British and American public post office, focusing instead on the interplay between social network systems, writing technologies, and literary production in the European cultural sphere. However, as my intention is to articulate the phenomenal origins of spam email, I will recount the connected developments that occurred in Great Britain and antebellum America in which the commercialization, automation, and disposability of the mails took root in order to inquire as to the effect of this change on the writing subject and personal values in post-personal times.

Reform of the Post from Royal Mail to Public Service

In 1860, one hundred years before the first electronic message was left on a shared computer in the MIT lab,¹² Queen Victoria knighted Rowland Hill for his reforms of the British postal system, which allowed for an efficiently organized, *public* postal system to take root. Martin Daunton (1985) explains that until Hill's several reforms as Secretary of the Post, which included the nationalizing of the penny post, development of the prepaid paper stamp, amalgamation of independent coach and carrier services, inauguration of the post box, and systematization of London postal districts, the General Post was overpriced and limited in scope to postal routes and roads in and between large municipalities. There were no delivery services, per se, except in the elite Westminster, and between diplomats, government officials, and royal senders.

¹² See www.internethistory.org

Before these reforms, postage had been too expensive for most ‘commoners’ and lack of services in rural and poorer urban districts acted, as Hill and others foresaw, as a deterrent to increasing the postal monopoly’s revenue, with the added side effect of demotivating the working classes and poor from overcoming illiteracy and becoming educated. The ancillary social advantages of a literate, letter-writing population gave political urgency to mail reform, although a fiscal agenda determined its progress (Daunton, 1985; Kielbowicz, 1989). Business also stood to benefit from the reforms, as businesses had become primary payees of the letter post. The coupling of the moralistic, social agency that underscored the government postal monopoly with the competitive, capitalistic ideology that underscored implementation of the policy propelled the global expansion of postal services and epistolary practices into all walks of life (Fuller, 2003; Henkin, 2006; Kielbowicz, 2007; Lyons, 1999), but also supplied the conditions for its post WWII decline (Campbell, 2002), until today, physical mail is but a cultural shadow of its once highly prominent position within personal, national and international affairs (Höflich & Gebhardt, 2005; Krug, 2005).

In England, the Reform Bill of 1830 enfranchised a new electorate of wealthy middle class citizens who dogmatically favored a laissez faire free market ideology, self-reliance, economic thrift and ‘pull yourself up by the bootstraps’ ambition (Daunton, 1985); Hill applied this ideology to both education and the mails (Siegert, 1999). The industrial revolution had destabilized the closed systems of aristocratic title and privilege that acted as a barrier to self-motivated social advancement. Among the burgeoning middle classes, competition was favored over sovereignty, and reformers regarded many of the old public systems and institutions as up for grabs. Hill’s first reformist experiment

was Hill Top School, a school established by his father. As Daunton (1985, p. 12) explains:

The school was a family enterprise in which the brothers became teachers in their early teens, and it was Matthew and Roland who were to transform Thomas Wright Hill's conventional institution into an educational experiment which appealed to the competitive business spirit of the early nineteenth-century Britain and attracted national attention. They were, in short, educational entrepreneurs.

The Hill's published their pedagogical method, the Hazelwood System, in an anonymous pamphlet titled *Public Education*, printed in 1822, and brought a copy to the highly regarded utilitarian philosopher Jeremy Bentham, securing his patronage of their school. The Hills opened two other schools before centering their operations in London, where Rowland became intent on reforming other aspects of the political system. He authored pamphlets to express these desires, but it was not until the publication of *Post Office Reform* (1837), in which he outlines his plan for reforming the mails, that Hill was to directly influence political structures of the day.

The reform of the Royal Post promulgated a much broader vision of mail services; the general public entered the scholarly domain of *litterae humanoires*, while commercial interests gained access to systems of the post and education. The image of the general public changed from a civil mass to a network of linked individuals capable of sending and receiving correspondence (Siegert, 1999). These accomplishments occurred only in relation to changes in writing and transportation technologies, and the eventual reconfiguration of the physical post with a telecommunications network concept (Noam, 1987). The greatest and longest lasting reform credited to Rowland Hill was the uniform penny post. Hill (1837, p. 68) wrote that postal reform "would bring immediate,

substantial, practical, indisputable relief to all.” The 1840 advent of the international penny post was met with such high demand that it took effect months before the initial printing of the *penny black*, the first gum-backed paper stamp (Daunton, 1985). The popularity of the affordable pre-paid paper postage stamp spread rapidly: within a decade stamps had been adopted by Brazil, Switzerland, the United States, Mauritius, France, Belgium, and Bavaria. Once Britain allowed her extensive colonies to issue their own stamps, the mail service became global in scope. In 1874, the first congress of the World Postal Union (later the Union Postale Universelle, a United Nations affiliated NGO) convened in Switzerland as an intergovernmental organization committed to the social, cultural and commercial communications among all people (Campbell, 2002; Universal Postal Union, 2003). It established a flat rate of postage between its member nations, whose ranks expanded to include all of Europe, Russia, Persia, Japan, Turkey, and so on, regardless of their bilateral relations. This was to remain in effect until the WWI, when programs of national censorship began (Price, 1942; Boyer, 2002, pp. 238-243).

Technological change came in many different forms: Cheap postage, cheap paper, prepaid stamps, international postal infrastructures, and significantly improved transportation—the shift from mail coach to rail transport ushered in an era of rapid delivery that made the writing of personal correspondence a daily event in the lives of many people around the world (Krug, 2005). Epistolary form brought a welcome intimacy to literacy in which the personal lives of correspondents could be sealed and disclosed in private regardless of their physical separation; this practice is described by Milne (2003, p. 3) as the first virtual community’s “dance between absence and presence.” Whereas business, government agencies, publishing houses and commercial

trade supplied the bulk of all letter mail until the mid-eighteenth century,¹³ cheap postage and regionalized services brought about a boom in the personal letter business (Daunton, 1985). Many national postal organizations used letter revenues to support competitive or monopolistic forays into the parcel delivery, financial services, and eventually, telecommunications. As Campbell (2002, p. 5) states, “most countries that have reformed their Posts have felt the need to liberalize their postal markets to some degree, as a way of realigning their Posts to technological change and globalization.” The Post Office rose in prominence both in government affairs and as a point of popular contact with the world at large. In this way public education and the public post mutually redefined citizenship: The rapid rise in literacy rates brought about by Trade Unions and Fellowship Halls, Dame Schools, Sunday Schools, and charity schools created the conditions for a popular postal culture to flourish, and in light of the success of postal reform (once a literate public could be shown to bring economic and social benefit to the nation), it was politically prescient to institute nationalized public education (Siegert, 1999).

We should not underestimate the level of common enthusiasm for literate correspondence in the intervening post-Reformation period of the Enlightenment leading up to the mid 19th century postal reforms. The industrial revolution triggered rapid urbanization and the mass production of, among other things, newspapers, journals and books, making them more affordable to those with a modest income (Fuller, 2003). The middle classes educated their children in literacy and numeracy, and as a result, bookstores proliferated. Book trade expanded at a time when reading for entertainment,

¹³ As Kielbowicz (1989) and John (1995) explain, the bulk of mail deliveries were not letters, but rather newspapers. Newspapers had reduced rates and some traveled free of cost, fueled by the need for daily trade and business information, more than for politics or entertainment.

not just administration or edification, became prevalent. One of the first novels to celebrate the romance and intrigue of epistolary communication was Charles Gildon's book *The Post-Man Robb'd of his Mail or the Packet broke open*, published in 1719, which enjoyed almost immediate popularity (Bosse, 1972). The premise of the narrative is the discovery by a couple of traveling gentry of a postman's mail bags, discarded by his (presumably illiterate) attackers, and then carried to a country manor whereupon the letters are opened and copied before being forwarded through family networks to their respective destinations. The divulging of the contents of the mail purse is used as a literary device for exposing and critiquing the inner workings of the social order. Gildon (1972) moralizes on the contents of the copied and published letters as if they were real correspondences. He foreshadows key features of mass postal culture and the psychology of the written self, expressing the vulnerability of the written correspondence to fraudulent misappropriation, misinformation, plagiarism, and exposure of private matters in the public domain. As a venue of intimacy subject to "media logics," the subjectivity of public literate correspondence networks mapped a new discursive terrain of "the technical protocols of interiority" (Seltzer, 2000, p. 197).¹⁴

The Construction of Epistolary Subjectivity: Birth of the Writing Self

The interior consciousness that was being shaped by technical protocols of the public post involved navigating the intimacies of love as much as conducting news.

Siebert (1999) argues that Goethe began, and Kafka presided over the end of, literature as

¹⁴ Included in the publication is *The Lover's Sighs*, which Bosse (1972, p. 8) calls "an important early effort to use letters for dramatic story telling." Noteworthy for its use of different writing styles to personalize fictional characters, the narrative concerns two mistresses of King Alphonso—the jilted ex-consort Stremunia seeking his attention has her mail intercepted by the deceitful current one, who responds in the King's stead, and the intended dialogical contact remains unconsummated.

an epoch of the post, during which the interiority of the writing self had been mapped through correspondence practices that treated the letter itself as the object of devotion. No longer a posting, the letter was gendered, chaste, a sealed world, an intimate relation. The media logics of new postal network technologies and protocols mechanized and chaperoned the romance associated with writing. Novels of the eighteenth century were not necessarily concerned with moral intervention in society's values; more commonly, writers conjured pulp-fiction themes of illicit love, sure to find a ready audience. Among those who sought to edify the popular novel was Samuel Richardson, a successor to Gildon, whose epistolary novels *Pamela* and *Clarissa* were best sellers (Sale, 1950). Richardson, who ran a successful publishing business, was astute about the new reading public and recognized that women were commonly written off as flat, stereotypic characters restricted to their domestic duties and confines, although they made a large portion of the newly literate readership (Cook, 1996). In *Pamela, or Virtue Rewarded*, the letter format gave Richardson (1740) an ability to bring to light the domestic narrative without identifying himself with it, and to posit a heroine whose morality stood the test of male advance and aggression.¹⁵ Combining moral and commercial interests through the letter format, Richardson presaged the reformist agenda manifest in the public post a century later (Shuttleton, 1999).

The popularization of correspondences as a form of literature created a perception of the mails as a provocative parade through public space of the private lives of

¹⁵ In his introduction, Richardson (1740) claims to be the “editor” of a true correspondence between a young woman seeking advice from her father in order to ward off the attentions of a rakish, wealthy suitor—she succeeds and the suitor is only able to symbolically violate her chastity by opening and reading her personal letters. The enclosure of the letter within folds of paper and a sealed envelope added potency to the gendered metaphor (Siegert, 1999) that was not lost on the reading public. The letter's symbolic properties shaped both literary production and social perception of postal practices.

individuals, and this domesticated the contents of literate communications in a way that had hitherto not been the primary function (Siegert, 1999). The Post had historically been a form of public address carried out at a distance, involving many intermediaries.

Literature personalized correspondence and fomented the gendering of the letter, whose contents—concealed within folds and sealed for privacy—became symbolic of private desire and domestic agency concealed and conducted through a public space (Armstrong, 1987). As the private world became public, a spectacle, the public sphere of the network and its media logics became personal. The letter contained a private world submitted, irretrievably, through the post to become the property of its reader.

Expression of personal worlds through the public context of the post (where the post can be understood as privately publishing the writing self) engages the reader in an unfolding, exploring, and constructing of another's world that not only influenced writing practices of the day, but reading practices as well. The reader as personal addressee takes a formative presence within the text; the text coheres through the sovereignty of the dialogical relationship. Letters formalized answerability, while casting the certainty of presence, of response, into doubt. A letter might never arrive, becoming the lost property of the public network, and thus, exempt from emblematic sovereignty. Moreover, the individual writer was represented in the letter's contents as a psychological entity to be reconstructed from *within the text*. The textual psychology of the writing subject was placed in humorous relief in Laurence Sterne's novel *Tristram Shandy*. Sterne was Richardson's contemporary, and where *Pamela* and *Clarissa* bring to light the technological form of the letter and its role in private affairs, Sterne's ranging missives, the chaotic thoughts of Shandy's inner world, are constructed into a relational whole by

the reader who is a complicit co-author of the thoughts, rather than explicit addressee. Thus Sterne's novel evokes the psychological significance of the letter without its postal intermediation. Today, *Tristram Shandy* offers cultural theorists an intriguing precursor of hypertext, in which reader and writer co-author a multi-sequential text (Allen, 2003; Landow, 1997). As Yellowlees Douglas (2001, p. 22) states, "mimicking the epistolary novels of his era that were directed toward a reading subject (who was not, however, the 'real' reader but a character within the fiction itself), Tristram directly addresses his surrogate reading public, but in the form of a ridiculous construction—a slightly stuffy female reader." Taken together, the popularity of Sterne's and Richardson's novels was founded on a modernist literate worldview that was being shaped through changing conceptions of the mails as a virtu(e)al space of and for the writing self.

Through popular modernist literature the way was paved for postal reform. Popularization and personalization of correspondence practices within middle class European and North American culture created a vent for domestic and intimate matters via channels of public correspondence. The symbolic significance of letter writing as a measure of social status, educated cultivation, and participatory, literate citizenship, added ideological force to postal reform and the extension of mail services to rural populations and poor urban districts through affordable postage and infrastructural expansion (Boureau & Dauphin, 1997). However, numerous challenges to the infrastructural development of a public postal service lay ahead: speed and reliability, volume and deliverability, were essentially contradictory problems facing postal reform; on the one hand a problem of how to move masses of mail rapidly, and on the other hand how to individually track, relay, and deliver items in the mail stream. This required

formalizing modes of address into a universal system of codes and destinations. A worldwide postal service would require a worldwide register of resident populations. Personal mobility, enhanced through the same technologies that improved transport of the mails, posed significant challenges to postal organization. The Post Office had to contend with problems of persons having no fixed address, wrongly addressed letters, fraudulent use of the system, even with the death of correspondents.

The implications of lost messages, given the enormous personal significance that had been ascribed to literate correspondence, loomed in the imagination of correspondents. The same system that formed the communicative bond could also cause it to falter and break, and in this way the Post, like biblical Babel, not only reflected a network, but a terminal diaspora of communication, an absence into which all hearts opened and all lines flowed. As Derrida (1987, p. 123) writes regarding the psychoanalytic aspects of postal concept in Poe's *The Purloined Letter*, "a letter does not always arrive at its destination, and from the moment that this possibility belongs to its structure one can say that it never truly arrives, that when it does arrive its capacity not to arrive torments it with an internal drifting." For Derrida, letters contain a phenomenological absence that is not overcome by reception but remains integral to the written text submitted to the physical, or for that matter metaphysical, post.

Through his work in *The Post Card*, Derrida (1987) explored his personal world as a writer, rather than public philosopher. The exposure of the contents of the personal mails performs a deconstruction of the signifying force of truth in language under the psychological effacement of sovereignty in author and text. Like the graphemic letter, the postal letter and card is marked by what Derrida (1987; 1980) calls *différance*, that is,

signification through difference not originality: having no point of origin or completion, letters leave dialogic traces of meaning only in passing over a formalized (codified) absence (Milne, 2003). Moreover, they may be discarded, lost, enveloped by the system in the process of transmission. In this condition, as Powell (p. 128) comments, “knowledge is undone...by what is beyond the aporia which various positivistic axioms or presuppositions produce of themselves...the psychological state of reception...is at stake.” Herein lies the critical status of secrecy, intimacy and written expression in the public domain.

In the process of becoming the primary venue of intimate expression of the writing self, the mail formed a public environment for personal values to be mapped upon the interiority of the network concept. Simultaneously, postal reform expanded the network concept as a market place that was in some respects anathema to the educational and sublime, promissory values embedded in formalized social codes of literate exchange (Milne, 2002). Before the onset of media logistics, the epistolary construction of the writing self and its literary-postal organization adopted “the logistics of the poet’s dream” (Siegert, 1999, pp. 84-91), in which letters arrive, communication is open and assured, and sacrosanct—the supplement of the education and repository of the confessional. The technological and ideological reconstruction of the post led to the disembodiment of poetic subjectivity through processes of mechanization that extended through writing, publishing and postal practices. Massing the mails turned the authority of the speaker and the poetic writing self into a systemic variable, a cipher of difference and distinction, moreover into an author, a narrator of internal states speaking to a distanced and generalized other. Communication was no longer assured; all forms of difference that had

enhanced uniqueness of the correspondence event in the poet's dream logic now interrupted the regular flow of discourse in the network. Literature of the postal epoch was reduced to the state of its transmission: it became information, neutralizing difference in the shadow of network logistics.

The Significance of Commercial Interests in the Content and Function of the Post

Before Postal Reform the delivery of mail involved many complex, personal negotiations. The sender was represented in the person of the messenger-courier, and economic transactions regarding the provisions of the messenger that included food, lodging, fresh horses, even the washing of clothes, were included in the bill. Beale (1998, p. 2) explains:

The method of delivering letters by a messenger who took mail from the sender to the recipient continued to be used until modern times. Speed was not their main consideration; it was the certainty of arrival and security of the letter that mattered most. The conversation between the messenger and the recipient of the news was an essential part of the process. Equally important as delivery of the letter was the verbal reply that would come back by the same messenger. Many letters that we know of from early times are primarily letters of introduction, the bearer being able to pass on the important news by word of mouth, thus ensuring both the confidentiality and a reply.

However, the security of the post was never a guarantee. Letters were intercepted and the contents read, even of messages sent by royalty. From the Middle Ages in Europe on, matters of a sensitive political and personal nature were usually written in cipher, and nonetheless these messages were often captured, decoded and read (pp. 42-47).

Commercial use of the posts was costly, but became increasingly important throughout 16th and 17th century Europe. The public was largely excluded not only by cost but by design. However, the rise of the merchant classes began to erode the political monopoly of postal services. In 1519, the Thurn and Taxis service covering most of Europe “had been opened to continental merchants and the public” (Beale, 1998, p. 160). As with other postal organizations of the period, Thurn and Taxis served various interests in espionage, and were subject to various kinds of bribery and intrigue. Servicemen were armed, costs of mail were assessed by distances traveled, and commissions were paid along with the messengers’ fees, all of which made regular mail unfeasible.

During this period, the Royal Post in Britain also loosened its monopoly on postal routes that had provided free transport only to royal messengers. For commercial use, both senders and recipients paid fees. During the 17th century increasing importance of trade in all matters of state threatened this monopoly, and in 1626, Samuel Jude gained permission to carry news along the important royal postal route between the naval center of Plymouth and London business districts (Beale, p. 218). In 1629 the Privy Council “approved the private carriage of the public’s letters along with those from the king,” and in 1635 a proclamation by the king opened the royal post to the public” (p. 219). The “public” remained, however, a closed network that had enlarged slightly to incorporate members of the business community. Business had pressed the cause for both increased access to postal routes and the increased speed of delivery; speed was vital to matters of trade and competitive advantage.

Commercial interests were served by rapid transport of news regarding events and matters related to trade. The desire for competitive advantage in international trade

relations put a high priority on the postal service as a source of news and newspapers. By the 18th and 19th Centuries, the bulk of newsprint had overtaken the volume of mails transported by the Post Offices of England and America (Daunton, 1985; Kielbowicz, 1989; John, 1995). And thus another change in the postal concept was underway, insofar as the post was seen as a bearer of public information as much as of private correspondences. This was particularly the case for the United States Postal Service, with widely distributed populations, many of them quite remote and entirely reliant on transportation of newspapers for contact with the external world (John, 1995). The private carriage of mails was not inhibited by state interests as it had been in Europe, and private enterprise in the delivery of mails thrived until the mid-nineteenth century consolidation of the U. S. Postal Service and the creation of the Railway Postal Service that could move large volumes of mail at little extra expense to the carrier. The Post Office in America not only spread news but also gave access to goods and literature of various sorts otherwise locally unavailable, and once it became an inexpensive mode of transporting all printed matter, it also became a means of commercial solicitation of the public.

Increasing and Controlling the Flow of Postal Contents

Wayne Fuller (2003) describes the importance of the changing contents of the U.S. mails, and in particular how these texts functioned within the moral state of affairs of in the nation. Fuller begins his account of 19th century American postal history with the lengthy controversy over delivering the mail on the Sabbath day, and describes the various vigilante attempts and political encouragements for state intervention in, and censorship of, the content of the mails. The postal system was seen as conveying a

system of moral values conferred through literacy, one over which regulation was needed (also see John, 1995; Kielbowicz, 2007). Following British reforms, the individual right to affordable correspondence was advocated for and granted. The Postal system as a source of civil education and personal enlightenment gave way to a kind of profligate abuse; mass public correspondence, in its bulk and unsolicited form, gave Victorian commodity culture access to the private home and hearth as a venue for advertising and often licentious solicitation, a venue that marketing had previously been denied (Richards, 1990). Values associated with the written word, as a vehicle of truth epitomized in the Bible, were being compromised (Fuller, 2003). A moral crisis was brought on by mail reform, one in which mails that had served as the discursive life-force coursing through the body politic, filled with bad content—immoral literature. Religious groups argued that commercial mail, like bad blood, would spiritually pollute the nation.

Fuller (2003) explains that mail reform in the U.S. Postal Service was spurred on by a technological upgrade in 1864 when George B. Armstrong, civic manager of Chicago's Post Office, spearheaded the creation of the Railway Mail Service. Armstrong, with precedent in the British consolidation of mail transport services, realized that rail was a more efficient means of conveying the mail than the traditional mail-road messengers on horseback. In addition, he put into practice the sorting of mail into bags en route, rather than at the destination, thus decreasing the time and amount of unnecessary distance any given letter or package traveled to a destination. The railway post developed quickly, and by the time of its official inauguration in 1869, it included almost all major railways across the American continent and prompted the consolidation of the First Transcontinental Railroad in the same year. In addition to expanding and speeding up

U.S. postal services, the Railway Mail Service added the capacity for greatly increased volume and weight, at little extra expense for items classified as newspaper (unsealed mail) and bulk mail. The opportunity to cheaply, at times even freely, distribute publications that met the lax definition of a newspaper gave rise to a boom in the independent press. Publications of all variety were shipped as rail freight, and it is these publications that religious postal vigilantism fixated upon. To rid the system of this bad blood, moral filtering of the mail to be implemented at the site of sorting the mail, a *dynamic on-track process* during relay, rather than at a post station, was demanded.

Impersonal Mail Circulars and the Postal Origin of Spam

The mass address, bulk delivery of mail across large distances at cheap rates contains the germinal seed of what was to become spam email. In the proliferation of impersonal correspondence, the transposition of the sovereign Reader to the crass commercial subjectivity of *the customer* was already underway by the middle of the 19th century. Because this momentous change in public literacy is crucial to my thesis, and to the historical framework in which the sociocultural implications of spam email might well be grounded, I am drawing heavily on two sources to demonstrate the close relation of circulars (mass, commercial or fraudulent print mail) to spam. The first is Fuller (2003, p. 169) whose vivid description first brought this connection to light for me:

The post office had rekindled the growth of this astonishing array of publications in the 1850s, but paid advertisements sustained the newspapers and magazines themselves. Advertising was at least as old as writing, but no society had used it as widely as did Americans after the massing of publications in the 1850s. From simple advertisements placed by businesspeople in local papers, to paid agents whose business it was to sell space in newspapers and other publications, to

agencies that made an art of advertising, the trade flourished during the 1850s. Hand in hand with the bustling business activity of the decade and the broad dissemination of new publications, advertisements for the products that were bursting from teeming American businesses appeared in thousands of newspapers, circulars, and advertising publications.

Among those most prominently advertised were patent medicines that promised cures for all the ills of humanity (Petrina, 2008; Richards, 1990, 168-204). Finding a vast market among a trusting people who had so few remedies for their physical frailties, producers of patent medicine filled the mail with transient matter—pamphlets, books, and circulars—as well as newspapers, all brazenly advertising miraculous cures. Because the law’s definition of a newspaper was so vague, all were mailed at the newspaper-periodical postage rate, which, cheap as it was, often went unpaid. “On much of this kind of matter sent in the mails,” the postmaster general complained in 1855, “no postage at all is collected. The greatest abuse in this respect pertains to lottery and patent medicine circulars and pamphlets with which the mails in every part of the country are burdened. In some instances from thirty to forty bags of this matter have been received in one day for distribution at a single office” (Fuller, p. 163). In addition to this list of abuses of the mail services, Fuller discusses the transport of pornography and paperback books, and many mass publications devised to freeload on the public mail service. But of particular interest in regard to spam are mail circulars, many of which were bulk mail swindles, attempting to defraud the large number of people new to the mails and unaccustomed to distrusting written communications.

My second source for the connection between spam and circulars of the modernist postal era comes from David Henkin (2006), who illuminates the social changes effected

through the extension of mail services beyond urban, cosmopolitan centers to rural districts, and the concurrent problems related to informational excess and impersonal communications:

Already by mid-century, many Americans (principally those in cities) inhabited a world full of paper detritus. Posted circulars may have been addressed to individuals (unlike the posters and broadsides that littered city streets), but they still epitomized the impersonal communication associated with modern print culture. (Henkin, 2006, p. 155)

Like the senders of spam email, authors of circulars harvested personal addresses from a wide variety of textual resources; and ironically, the most useful resource of all were publications by the post office in daily newspapers listing the names and addresses on letters that remained unclaimed or undeliverable, and were therefore destined for the Dead Letter Office instituted by America's first postmaster general, Benjamin Franklin, in Washington, DC. The rapid expansion of mail networks and cheap rates provided the right conditions for impersonal mail to become big business, all that was required was the formal point of address to imitate the confidences of private correspondence, and circular senders had hundreds of thousands of names at their disposal. Henkin (2006) states this connection between the spammers and circular senders explicitly:

While names (and therefore addresses) were publicly accessible for *these early purveyors of spam*, victims of circular swindles received letters that often appeared quite private, addressed to them as individuals and pitched discreetly under the protective seal of wafer, gum, or envelope...these operations exploited and underscored the massive scale of the postal network, which allowed swindlers to cast an exceptionally wide net and at minimal expense. Even a small percentage of

replies from eager victims remitting a dollar or just a postage stamp could transform into a major windfall. (p. 193, emphasis added)

The domain of sincere personal transaction, treated by Erasmus as a genre of literate activity whose purpose was the sharing of rhetoric and poetry and the emotions these evoked, had been sequestered by the interests of advertising and marketing to a captive and credulous domestic market. The international expansion of postal networks with the goal of connective, domestic delivery of the mail, in conjunction with the surge of impersonal correspondence did not cause intimacy in correspondences to disappear, but intimacy became accessible and publicly on display. What was public in nature could now enter intimate space, and simultaneously intimacy became a public spectacle of the new postal culture that had come into existence.

This voyeuristic appeal of the spectacle was nowhere more apparent than in the Dead Letter Office, as Henkin (2006, p. 160) observes, where the public could peruse mail “accumulated in unsurpassed volumes and systematically pried open,” thus revealing the intimate lives not only of people from around the world, but the intimate life of the post itself, a fictive and fantastic commonplace of the public at large. The visible display of tens of thousands of individual, actual letters, misnamed, wrongly addressed, perhaps sent to persons no longer alive, and containing all manner of personal effects (locks of hair, trinkets, money, lipstick kisses on paper, poems and pictures, and so on), the traces of misplaced lives, unrequited loves, and concerns or proposals whose answers never forthcoming, gave the postal culture of the 19th century a mystique that captured the public’s imagination. The fate of the letter spoke of the fate of individuals, a connection it inherited from antebellum times. The Dead Letter Office allowed the public

to peer inside the literate workings of the spectacle of a society liberated by mail and yet divided by the sheer density of their discourse. Guy Debord (1995, p. 46) claims, “What obliges the producers to participate in the construction of the world is also what separates them from it. What brings men together liberated from local and national limitations is also what keeps them apart.”

The postal services that had historically ordered and defined the realms of sovereignty and public citizenship by plotting the relational paths of discourse geographically, manifested metaphorically in the schema of the worldview as a network composed of structural nodes. With the advent of universal mail service, relations among the nodes could no longer be counted on as geo-specific. Increases to the mobility of the mails reflected increases to the mobility of the greater mass of human populations. By the end of the 19th century, postal networks had become highly visible, and people for the first time witnessed a globalizing discourse: the postal network was in the railways and the postal offices that had been built even in remote rural locations, and visible in the employees of national Post Offices, as large employers of both women and men (Cooke, 2007). The discursive network of citizenry reflected in postal culture of the same time, in light of the Dead Letter Office, the displacement of individuals, their increasing anonymity in the wake of massive discursive production and transport.

By the mid 1870’s the “the great majority of the mail arriving at post offices was posted to parties whom the sender did not know.” Although this had also been true of newsprint and government franked mail, Henkin (2006, p. 169) continues:

After the mid-century reforms, the privilege became democratized, at least to the extent that the power to communicate with many unknown persons was available to

anyone who could afford printing costs (or the burden of extensive copying) and radically reduced postal rates. A wide assortment of publishers, ideologues, schemers, fund-raisers, pranksters, entrepreneurs, solicitors, marriage-seekers, and others flooded the mails with the sort of correspondence that simultaneously exploited and eroded popular notions of the letter as a form of personal relationship across distance.

Before the end of the century, nations had begun tying the world together with wires, along which information could travel in even greater volumes and speeds.

Proto-Spammers and the Mass Production of the Mails

In the wake of unprecedented volumes of mail and impersonal informational excess, literate culture becomes burdened and finding itself overwhelmed, it innovates new practices of self-organization as means of coping and self-preserving. Literate culture, especially in its rarified literary form, has undergone radical change during the epoch of the postal reforms. The culture of literacy as the preservation of treasured discourse undergoes a gradual metamorphosis, first through the erosion of the author-as-unique-individual concept that modernism vented, and second through a related transfer of originality to systems: mail comes from the mail, the systemic Other. Left without an answerable set of circumstances, the subject is cut adrift from responsive agency.

The mass production of mail contributed to conditions in which the recipient of communications was relegated to a faceless, though not nameless, uniformity in the unscrupulous eyes of commercial bulk mailers. Henkin (2006, p. 167) relates:

One example of a scheme to ‘secure the services of a smart and intelligent Agent’ for facsimiles of U.S. greenbacks appeared in the form of lithographs so ‘well

executed' that an inexperienced addressee might easily imagine, according to one observer, that he was reading, a letter prepared for him exclusively.

Another 19th century proto-spammer outfit employed a scriptorium of eight employees who were so effectively trained 'that there was no perceptible difference in the chirography' of thousands of circulars they produced and disseminated" (p. 167). The circulars' implicit deception involves the linguistic feature most central to correspondence in the pronoun form, "you." In English, the word serves both personal and plural address, and it is this ambiguity that mass-mailers inherently play upon. "You" becomes a generic consumer of information, an object of the discourse. The consumer is subjugated and then alienated from the process of discursive production—this being the epitome of personally addressed impersonal correspondence.

It may be argued that mass mailing achieves this conflation of personal address in a way that is traditional to lyrical poetry and rhetoric. However, the reform and expansion of the post to a public institution made the deception insidious. The letter was an acceptable medium for exchange of sovereign intimacies, irretrievably sent, rewarded by mutual sentiment and answered through correspondence. The content of these postal messages was formatively shaped over hundreds of years of scholarly letter writing that primarily used these literary modes of intimate address. During postal reform the scholarly model was popularly upheld, and poetry was prolific in the mails and a standard feature within intimate correspondences, typified during 19th century postal culture by mass mailings on Valentines Day (Henkin, 2006). The mails held a correspondent in suspense, and this intimacy of exchange celebrated in lyric poetry exposed, as well, the vulnerability of beloved reader to deception and fraud.

Mails that carried the correspondences of trusted knowledge and learning within their folds also became bulk conveyors of messages anonymously sent by unanswerable persons claiming access and relationship to private worlds, and on this basis these senders could also now practice systems-based exploitation made possible by specific developments in technologies of writing and transportation that were changing faster than cultural perceptions and literate practices. The commercial interests of parasitic circulars found a healthy host in a public that had been opened up to a profound means of discursive authority and sincerity, a textual gift-economy of personal literate exchange.

A side effect of postal reforms and new transportation technologies was the subsequent boom in several industries related to the technology of writing, in particular to paper. Although a long and intriguing story coeval with the development of mobile writing, in Europe and America in the early 1800s paper was primarily made out of rags, beaten, dissolved into independent fibers using lime, and screened into sheets. The addition of cellulose from straw made newsprint cheaper. Paper was expensive, and very little disposable paper, in the form of cups, plates, napkins, or even toilet paper was in existence; outdated newsprint served a wide variety of commercial and domestic reuses providing much needed packaging, cleaning, lining, and stuffing materials. As Strasser (1999) comments, rags were the chief expense manufacturers faced in the production of fine paper products. Rags required extensive processing, but the real problem involved cleaning the rags, a problem that came to a head during a mid century cholera epidemic, during which time, according to Kennedy (2007, p. 90), “the popular acceptance of the germ theory” emerged, one in which waste itself, and not just its neglect, was implicated in crimes against humanity.” Invisible germs, like invisible biological messages

contained in the rags, were being transported by the same means as mail and persons were, and the importing of rags across the Atlantic was prohibited. The demand for paper grew in tandem with the post. Of the alternatives to linen papers, “wood was the most promising,” states Strasser (1999, pp. 91-92) “thanks to the vast North American forests” and to a German wood pulping invention in 1849 that reached American shores twenty years later. Wood pulp paper was cheap by comparison to parchment and linen, and “by 1885, wastepaper was mounting up and becoming a household problem.” That paper, as the dignified technology of the written word, was becoming recyclable, even outright garbage, grounded an aspect of the disposability of literate culture and consciousness that was unprecedented and quickly spread to include even valuable personal correspondence. Strasser (p. 92) states, “in 1857, forty tons of books and papers accumulated by the Bank of the United States—including ten tons of autograph letters of leading statesmen, politicians, and financiers—were sold for recycling.” Five years later, “*Scientific American* expressed concern about the number of valuable documents being destroyed for papermaking, but over the next few years thousands of tons of books, newspapers, letters, and business papers were sent to the mills” (p. 93).

Of Textual Excess, Germs, and Disposable Discourse

The mass production, transportation, and densification of printed texts produces copious waste in the physical environment that is slow to biodegrade (Rathje & Murphy, 2001). Decaying garbage takes on qualities of impurity that have both a moral and, particularly after the advent of germ theory, biological dimension (Douglas, 1970). Germ theory set the postal network in a new light, as symbolic of biological forms of correspondence in the natural communication of germs. ‘Communicable diseases’ travel

by the invisible agency of germs spread in the same transport with goods and people. With the content of the mails already serving as a barometer of the moral adroitness and spiritual health of the nation, germ theory introduced a notion of systemic biological threats originating within the system of correspondence and passed on to networked populations. Mail became biologically threatening, a communication system of viral codes, secrets, invisible toxins embedded within network systems and material excesses of mass-produced texts. The computer virus, as a form of cybernetic germ transmission, follows from this biological threat posed by postal systems to the networked-public body.

Circulars and disposable newsprint provided a discursive model for germ theory. Without treatment, the accumulation of this informational detritus undermined moral certitude, physical health, and social order: “The technological solution to the metaphysical menace of waste was the ‘garbage destructor,’ later known as the incinerator. Its invention dates back to the 1870s, making it contemporaneous with the first widespread disposable paper products” (Kennedy, 2007, pp. 90-91), and coincidentally, with the convocation of the Universal Postal Union and the peak of Postal culture. The connection here between cultural and biological communication, while speculative, draws renewed support from cybernetic networks of mail systems that now deliver not only junk and spam, but also contain viruses. Going online, unprotected by costly security measures, becomes miasmatic and dangerous. Cyberspace combines the physical and metaphysical notion of both waste and disposability into an ontological condition. Kennedy argues “the complete metaphysicality of cyberspace provides the final test case. There, where no physical basis whatsoever grounds being-with-others,

relationships, many between false personas, have the reliability and durability of paper serviettes” (p. 142).

The overall concern here is the values of disposability being assimilated into all walks of life as natural, as the right thing to do. Waste in the time of the birth of the network concept lay within moral rather than ethical frameworks. To produce waste was not bad, was after all human, but *to not dispose of waste* was to invite the invisible agency of evil into the world. Disposability transformed the concept of waste, as natural excess, to trash, which denatures waste, mobilizes it out from both biological and discursive systems. Kennedy (2007, pp. 193-194) explores the ontological relation between biological and discursive practices of disposability, the fugitive, uncared-for product of a consumerist ideology, stating that “the ontological hollowness of disposable commodities evacuates their phenomenal being of physicality...[presupposing] their disappearance in the commodified order of technology.” Under this communications prototype, visible accumulations of material waste appear as breeding grounds of pestilence.

The circumscription of the sovereignty of the individual through the spectacle of mass mailing led mail services toward an increasing disposable, consumerist orientation. The impersonal post, embodied more by newspapers and advertising than by letters, gave rise to a corresponding impersonality of mail. Over the twentieth century, commercial circulars and impersonal junk mail rose in volume. In the U.S., “the social correspondence of the earlier century gave way, gradually at first, and then explosively, to business mail. By 1963, business mail constituted 80 percent of the total volume” (USPS, 2007). In just over one hundred years since postal reform, commercialism had

taken over this remarkable force of literacy and private/public discourse. Email may in fact be undergoing a similar cycle, only at a much more rapid pace. It took less than ten years from the widespread adoption of email in the early 1990s for the majority of email correspondence to become some type of spam and for information waste management to become a high-priority in technical systems of literate correspondence.

Speculatively, the process was facilitated by the spectacle of the public post and mass mailing, in which the sacrosanct subject of the poet's dream audience becomes the generic address of a disposable entity. The consciousness of the dialogical public as a space of disposable discourses feeds into a much broader ontology. Referencing Heidegger's ontology of being, Kennedy (2007, p. 142) states,

In the throwaway society, disposability has become more than a prevalent feature of commercial goods. It has become more than a way of life. Disposability now predominates as the primary mode of being of innerworldly entities that presents all phenomena as a priori trash. In *Being and Time* each ontological mode of being of innerworldly entities corresponds to a specific mode of being-in-the-world of human being. Our different ways of disclosing entities, dictated by our various ways of handling them, translates into different possibilities of disclosure.

In regard to the public spectacle of mails, literate culture has adapted to different possibilities of disclosure in fascinating ways. Kennedy's concern for the deep ontological restructuring of consciousness delivered by disposability, which is in essence the construct of not-having-to-answer to or for someone or something, originates not solely with consumerist material culture but within the spectacle of disposable discourse, of informational excess with all its treasures, tricks, and hazards, becoming integrated within literate practices. Attendant with these practices is the physical disposal and

sometimes destruction of all this waste, and paper is a world leader in landfill leftovers (Rathje & Murphy 2001). These changes at a discursive level of the writing self were propelled by technological changes to textual production and delivery. This period of postal culture remains with us, even if buried under the deluge of mediated culture today. Recycling as a generative practice of personal meaning recovery may not be a panacea but it does effect a positive change in perception. Literacy also shifts in this process: It becomes aesthetically proactive in terms of one's time and attention. In other words, literacy becomes a priori obliteration, the innerworldly entity corresponding selectively with the subjective worldview of living in age of information overload and excessive, impersonal demand for attention (Himma, 2007).

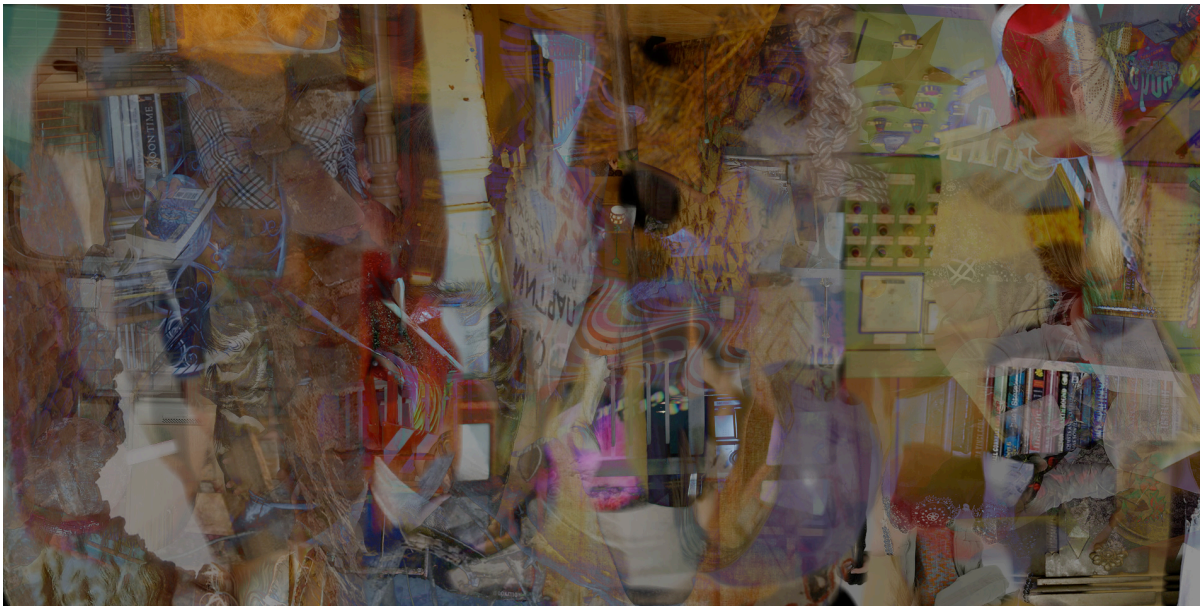


Figure 2.1. The Unanswerable

CHAPTER THREE

Lost in the Crowd: Minding the Market and Marketing the Mind

Sold Out: Mass Marketing of the Popular Mind

Mass-addressed personal messages and the creation of new forms of discursive excess and junk information in the mail have subtle though far reaching consequences. Each thing discarded loses something of its individual character, its determination, and becomes generic, undifferentiated excess—excluded from the independent designation, value and existence (Frow, 2003). In human terms, these are the masses (Cetina, 1997). The changing role of the literate masses is situated on a background of a formal, dialogical ethos of personal answerability among a distributed public, the reciprocity of networked cells in the social body (Nielsen, 2002). The Post Office pursued a public trust that Western society placed in the system of literate correspondence: that the mail should reach its addressee without unreasonable delay or becoming in any way falsified or altered. Indeed, the word *mail* derives from the Indo-European word *molko*, meaning a woven leather bag or purse, a net sealed by synch.¹⁶ Mailbags the world over still contain the latter feature. The mail, thus sealed and protected, received the protection of the public's postal service, the network's pledge against tampering or loss. Notwithstanding, censorship of international mails was routinely practiced throughout the history of the postal systems across the world, and reform of postal services also helped to systematize state censorship of mails. Controlling the mails was seen to be essential to controlling the spread of dangerous information. Concern for the sovereignty of dialogic counterparts

¹⁶ Several sources were consulted; however, this specific etymology comes from the 1899 publication of *The Century Dictionary and Cyclopedia*, p. 3581-3582

was no match for public safety or for moral degradation of the publics that the networks virtually gathered in their dialogical web (Fuller, 2003; Willis, 2007).

The public, however, was undergoing a period of dramatic change and redefinition that was to culminate in a new role adopted by *mass* media networks in shaping popular ideology and directly influencing social norms. The citizen correspondent, again, was no match for the voluminous and repetitive voice of a corporate-backed industry concerned with the mass dissemination of information. Networks had already attained the legal status of persons and acted in the interests of private shareholders, not the public;¹⁷ nonetheless they actively engaged in forms of discursive censorship (Atkins & Mintcheva, 2006) and actively participated in what the founder of public relations, Edward L. Bernays (1955), called the engineering of consent. Vested corporate interests started to manage the public domain by manipulating the content in the public information stream (Tye, 1998). The twentieth century ushered in an era of mass address that created decidedly different publics from those who gathered in crowds to demand democratic social change or those who comprised the literate citizenry of the post and readership of the international press.

In this chapter I theorize the act of writing post-person in an age of mass address, in which the distinction between private and public life has eroded, an age during which public relations, marketing and advertising has exerted profound influence on personal and political discourses. To understand these metamorphoses, we might begin with the progressive conversion of publics into organized crowds, organized crowds into niche

¹⁷ After the Santa Clara County vs. Southern Pacific Railroad case of 1885, in which the U.S. Supreme Court declared corporations to be legally persons, the economy of public attention would decidedly turn in favor of big business and the mass media (Soley, 2006).

markets and, simultaneously, the commoditization of all facets of domestic life: systems of belief, self-reliance, personal habits and symbolic values. I then present a literary perspective on the project of critically responding to these wasteful conditions of the written word, and a poetic challenge to the politics of disposability that underscore mass-production and consumerist ideology in the environment of social correspondence.¹⁸

The birth of consumerist democracy fostered in the marriage of mass media and market logics can be traced to concurrent developments beginning in the late nineteenth century that completely altered the composition of what Gustave Le Bon (1859/1960) called the *popular mind*. The extent of the popular mind had expanded with public networks. By the time Le Bon had published his book, umbilical telegraph cables spanned the Atlantic ocean's profound depths, crossed the Mediterranean and Black seas, and the daily telegraph news pulsed in code and spread via newspapers, transmitted from empire to empire and translated to crowds far and wide (Kielbowicz, 1989). Events in other parts of the world informed local knowledge, as ideas, common sentiments and popular struggles became daily news. In addition, the relative speed and subsidized

¹⁸ A distinction is to be drawn between the disposal of documents and the affect of mass address on the literate crowd. The focus of this chapter is on how mass address created conditions wherein the disposable object world and social world intersect (Latour, 1992). The discarding of textual excess is very ancient indeed, as the study of ancient papyri has shown. Many ancient Egyptians were educated, kept literature and, as Seid (2004, p. 2), emphasizes:

the most noteworthy feature is that so many of the papyri have been dug up with the spade from Egyptian rubbish-heaps. Antiquaries had set the example by excavating in search of the foundations of ancient temples or fragments of prehistoric pottery, and now the excavators seek papyri. The fact that so many of the papyri are found among the dust-heaps of ancient cities is a valuable indication of their general significance. The multitude of papyri from the Fayûm, from Oxyrhynchus-Behnesa, etc., do not, as was at first supposed, represent the remains of certain great archives. They have survived as part of the contents of ancient refuse-heaps and rubbish-shoots. There the men of old cast out their bundles of discarded documents, from offices of public and private [sic], their worn-out books and parts of books; and there these things reposed, tranquilly abiding their undreamt-of fate.

affordability of freight for publications to travel by rail and ocean steamer had seen a burgeoning of the commercial mails and independent press (Arnell, 1986). The public engaged passionately with the printed word at a time when the crowd had become a political force to be reckoned with.

In its construction of the ideal citizenry, the public network of the mid-nineteenth century postal era convened a rational assembly of literate individuals, exchanging news and goods, love and blessings, poems and prayers, bills and deeds, tokens and tracts and so on. This postal public was answerable to the messages they received and for the messages they sent. The crowd on the other hand was characterized as irresponsible, irrational and given to forms of hysteria and unconscious, although political, fervor in which individual personalities, hypnotized by reciprocal suggestion, were subsumed into the collective and became, a “creature acting by instinct” (Le Bon, 1960, p. 32). The individual no longer took personal responsibility, but instead blindly adhered to the charismatic authority of the leader. Noting the force of suggestion among a crowd, Le Bon states:

we see, then, that the disappearance of the conscious personality, the predominance of the unconscious personality, the turning by means of suggestion and contagion of feelings and ideas in an identical direction, the tendency immediately to transform the suggested ideas into acts; these we see are the principal characteristics of the individual forming part of the crowd. He is no longer himself, but has become an automaton who has ceased to be guided by his will. (p. 32)

From *fin de siècle* Europe Le Bon predicted that “the age we are about to enter will in truth be the ERA OF CROWDS” (p. 14), adding that the transformative realm of the crowd marked the port of “entry of the popular classes into political life—that is to say,

in reality, their progressive transformation into governing classes—[as] one of the most striking characteristics of our epoch of transition” (p. 14). Publishing in 1901, another French social psychologist, Gabriel Tarde, contradicted Le Bon regarding the predominance of the crowds, proclaiming instead “it is an era of the public, or of publics, and that is a very different thing”. The primary distinction Tarde draws is that, for him, a crowd is only present in person, moreover:

The biggest audience ever seen was in the Coliseum, and even that did not exceed 100,000 persons. But publics can be extended indefinitely...thus three mutually auxiliary inventions, printing, the railroad, and the telegraph combined to create the formidable power of the press, that prodigious telephone which has so inordinately enlarged the former audiences of orators and preachers. (Tarde, 1969, p. 281)

The “prodigious telephone” of the public print network emerged when the orators and preachers of consumer culture, media spin and marketing junkets had just begun practicing the rhetoric of consumer education and extending the commoditization of personal conveniences into an invidious and seductive redesigning of the social order.

In Tarde’s conception, the public exists to civilize rather than to riot. Print communications were the primary adhesive, and collated within the synched networking of the dialogical sphere, the public was made manifest in the bourgeois domain of intellectual thought and critical, literary and philosophical exchange. As Moscovici (1989) observes, Tarde’s conservative notion of the public sphere was informed by witnessing the passions of the “inferior” popular mind, seeing the crowd most clearly manifest in the sudden, aggregate, violent behaviour of mobs. In both Tarde and Le Bon’s frames of reference were the volatile, politically motivated, nineteenth century Parisian masses. The crowd of the time posed a grave danger to any ruling elite, for they

were in the process of delivering the final deathblow to centuries of aristocratic rule in Europe. They would be called upon repeatedly to perform atrocities and give their lives for freedoms that were undermined by the very leaders to whom they credited their liberation. Pertinent to the discussion here, however, is that they were *repeatedly called upon*—addressed *en masse*, not solely for imperialist aggression or populist revolution. As the international influence of American mass media increased over the next century, the crowds were called upon as consumers to purchase freedoms that had not previously been thought to exist. When the public became a literate crowd (melding Tarde and Le Bon's predictions for the coming era) supplied with access to a steady flow of current information, literate crowds became markets—more or less manageable within the established social order. To catalyze the transformation of the crowd from a politically dangerous mob to a controllable niche market, techniques originally developed for psychoanalysis were applied through mass media propaganda and advertising to create the docile, distracted and ultimately alienated, fragmentary and self-obsessed consumer citizenry (Curtis, 2002).

Creating the Citizen Consumer

Over the course of the next turbulent century the psychology of the crowd moved front and center in the capitalization of the public body and politicization of personal worlds. In tandem with the political transformations of the public sphere, the personal world had also undergone profound change. The map of unconscious drives that shape the personal world became rigorously signified through Sigmund Freud's work in establishing the field of psychoanalysis. Freud studied how the repression of emotions brought about neuroses, affecting the behaviour of not only individuals but also of social

groups (Freud, 1989). He developed techniques using free association, dream narratives, and spontaneous correspondence to help people become more self aware of their own unconscious signifying practices. Freud was interested in healing his patients by allowing repressed matters to rise to the surface, where, in intimate dialogue and correspondence with the analyst, the neurosis could be examined, interpreted, and the conflict to some degree resolved, giving the person greater comfort in conforming to society (Mueller & Aniskiewicz, 1986). To achieve these goals, the psychoanalyst needed to gain the trust of patients, who could then risk reconstructing their self-image under the guidance of, even projecting their identity upon, the analyst.

In a different guise, the underwriting of the symbolic status of answerable values was also, oddly, connected to Freud's writings. Freud, it may be observed, mapped the psyche with literary symbols and characters of ancient Greek mythology, such as Oedipus and Electra (Freud, 1996). By shedding the cumbersome baggage of ancient archetypes, his insights into the workings of the unconscious mind were readily adapted to new symbolic values centered around commodities, but drawing upon the same instinctual drives that had long haunted Western civilization, thus harnessing the unconscious behaviour of the popular mind in the interest of the ruling elite. As Curtis (2002) explains in his BBC documentary *Century of Self*, Freud's American nephew, Edward Bernays, upon reading *A General Introduction to Psychoanalysis* (Freud, 1920) given to him by the author, struck upon an idea that was to make him one of the richest and most influential men in the twentieth century. Bernays (1961; 1936) realized that he could use new mass media and public information networks to strategically direct the emotions of the crowd with propaganda, stimulating their fears and desires, and thus

engineer the public's consent in favor of his clients' political and economic agendas. Where Le Bon, Tarde, and Freud identified in crowd psychology a troubling immaturity, ethical ambivalence and blind faith in the power of leaders to vanquish social ills, Bernays saw this volatile suggestibility as an advantage; the solution was to channel the popular mind in ways that were economically and politically expedient. By stimulating the irrational drives and emotions of the individual, the mediated masses became malleable, and crowds could be organized into niche groups according to personal proclivities and attributes rather than political affiliations.

Curtis (2002) suggests that Bernays had a knack for predicting the effects of media propaganda on crowd behaviour and for manipulating public opinion about acceptable social practices. He is credited with altering longstanding taboos; for example, in a single gesture he made it acceptable for women to smoke in public. Staging a media event using young, would-be Suffragettes in a 1928 New York Easter day parade, he spread the idea that women lighting up cigarettes defied female subordination and smoking in public demonstrated democratic freedoms. The irresistible content of women triumphantly lighting their "torches of liberty" (a slogan he created specifically for the purpose) was carried by news wire to major newspapers around the Western world and the masses responded favorably. Other media followed suit, and soon female movie stars were lighting up torches of freedom on the silver screen for the world to see. Bernays was also influential in persuading the public on behalf of the financial elite that it was acceptable for ordinary people to borrow money from banks for non-essentials, like speculating in the stock market. Access to a lifestyle relieved of fiscal restraint was seductive. Needless to say, the stock market crash of 1929 and the Great Depression that

followed was a stumbling point in his very successful career. Poverty stricken, the crowds again gathered, outraged at having been betrayed by the capitalist dream.

Miraculous Merchandise and Personal Power

We need only refer back to Thorstein Veblen's critique of American society, published in 1899, as a nation in tune with the values of *conspicuous consumption*, to see that the stage was already set for these interventions using social psychology and mass media to control the mercantile habits, beliefs and self-perception of the crowd.¹⁹

Creating a mass market of the personal world was made possible when railway postal networks of print transportation had diversified sufficiently to allow for widespread dissemination of texts and material goods. However, the great difficulty at the time, as Susan Strasser emphasizes in *Satisfaction Guaranteed: The Making of the American Mass Market* (1989), was in creating a sense of need and desire for products that had never before been thought to be commodities at all. One such example is the disposable personal razor. Between men and the hair on their faces there stood diverse cultural traditions and social relations with barbers. The invention of the personal safety razor by a traveling salesman, King Gillette, required a form of widespread consumer education before it could be considered useful by men who in many cases had never shaved their own faces. But advertising did not stop at mere utility. The Gillette corporation claimed

¹⁹ Veblen (1994, p. 147) writes that modern industrial society at the turn of the century worked by selection to preserve, and to dissuade, certain public traits and tendencies in the nation. He offers the following description of the two types it sought to enhance: "the invidious or self-regarding and the non-invidious or economical. As regards the intellectual or cognitive bent of the two directions of growth, the former may be characterized as the *personal standpoint*, of conation, qualitative relation, status, or worth; the latter as the *impersonal standpoint*, of sequence, quantitative relation, mechanical efficiency, or use" (emphasis added). The particular theoretical concern here is how, through the importation of market values and social psychology into personal value systems, these two directions of growth were assimilated and managed as one and the same.

in large pedantic magazine ads published in 1909 that the razor is “no mere device. It is a *public service* with a *personality* back of it” (p. 97).

Before introducing the personal razor to public grooming habits, King Gillette had worked for William Painter, a bottle cap manufacturer “who invented the crimped, cork-lined tin bottle cap and was earning \$350,000 a year in royalties. Painter’s central advice to Gillette was to conceive another disposable product” (p. 101). Painter’s invention existed at a time when factory-bottled juices and sodas using Painter’s tin seal were gaining invidious distinction over the barrel and fountain drinks. Like other manufacturing sectors, beverage companies were establishing personalized product lines and, through public relations campaigns and mass-market advertising, had solidified into powerful, competitive, corporate brand names. Customers might now request a Coke, rather than an ordinary cola. Each product to be reinvented as a personal commodity required a form of packaging that gave an ideal surface for advertising. Although acquiring particular brands of manufactured goods had always been a distinction of luxury and leisure classes, most domestic products among the masses were purchased in bulk either with money, barter, or credit, and the public needed persuading that it was better to have pre-portioned servings in protective seals than to sample, bargain, and determine purchasing volumes with the local grocer, clerk, shopkeeper and barber.

The personal razor was a success story of commercial advertising and consumer education. The company advertised relentlessly and sold the idea of the man who shaves his face daily as a successful, well-adjusted, democratic citizen. “The safety razor,” claimed an advertisement by one of the many upstart manufacturers to produce disposable razors within five years of Gillette’s incorporation, “is a broad, democratic

proposition” (Strasser, p. 101). The author of these words, P. C. Sherman, created the Sterling razor company that did not advertise to Gillette’s “upscale market segment,”

but in magazines addressed to a broader audience, he claimed that his product would pay for itself in the barber’s fees it saved. It was sold not in stores but through the mail, on the installment plan. Applicants could get a razor free on approval if they sent letters of reference, which the company actually followed up... The extensive relationship with customers through the mail continued even after payment. (p. 101)

Mail was still regarded as a means of close personal rapport, a suitable substitute for the social sphere of the barber’s chair. The market was providing a substitute in the form of prepackaged commodities for personal dialogical relations and transactions.

Simultaneously, national brands rather than neighborhood characters became household names and sources of domestic help, and were thus framed within the collective labor of the household and the social identities of those within. The crowd had started to form product loyalties, and along with them, a kind of faith in brand names and packages over critical evaluation and negotiation of quality or utility.

New products flooded the market, and for each new product more and more dogmatic claims needed to be made in order to persuade a public already becoming accustomed to the broader strokes of marketing rhetoric. The particular style of advertising initiated in the first two decades of 20th century American market-making went beyond announcement of a product’s availability to an art of persuasion that far exceeded rational consumer education in details of acceptable public behaviour and personal convenience (Turner, 1953). Marketers seized upon the opportunity created by

widespread print media to give countless testimonies to the miracles of consumer convenience.

Market hyperbole was nothing new. In “Language of the Marketplace” Bakhtin (1984, p. 185) writes, “the declamations of the vendors of various drugs are very similar to the cries of Paris. These tirades are one of the oldest practices of the market. The image of the physician advertising his remedy is also one of the oldest in world literature.” However, the miraculous product that works by supernatural means to vanquish all forms of personal setback, from plugged drains, dirty clothes and dandruff to failed hopes and social inhibitions placed magic and belief in the realm of brand name commodities, at the same time that advertising revenues had come to be the backbone of the public press (Fuller, 2003). The new corporate hawkers could use the venue of the rational, dialogical public sphere in their market-making to enhance the credulity of the crowd. In “Magic as a Mail-Order Commodity,” Linda Degh (1994, p. 55) examines

the multiple ways to commercially manipulate standard forms of supernatural belief in the interest of marketing and selling merchandise, even to the point of commoditizing magic itself. Magic appears in diverse commercial promotions, generating distinctive and well-structured genres in the broad liminal field between folklore and literature.

However, in this case, “it is not rationality that assumes formal, irrational, magic tale shape, but magic that appears in rational, or almost rational dressing. Thus the merchandise is nothing less than the key to happiness itself” (p. 56).

Instead of the person, it is the heroic product that fights cavities, gets tough on germs, removes greasy stains in a jiffy, provides a sense of dignity or demonstrates the

sophistication of the purchaser. Convenience gets attributed with miraculous powers, allowing the market to obtain a kind of supernatural status and all-determining system of values. “Modern advertisers,” claims Degh (p. 54), “recognize this need for fulfillment by magic where rational behavior is insufficient. They do everything to cause, stimulate, and increase this need. ‘Bad news’, writes [Marshall] McLuhan, ‘has long been the hard core of the press, indispensable for the moving of the mass of ‘good news,’ which is advertising’ (Key, 1973, xviii).” As a result, the cries of Paris for democracy, liberty, social unity and freedom were up for sale in the phantasmagoria of the marketplace. Crowds, affected by the persuasion of advertising, exhibit tendencies and loyalties “of blind, unconditional submission, similar to magic behaviour” (Degh, p. 56): remarkably similar descriptors were used by crowd psychologists to understand the 19th century masses in regard to adulation of their leaders. The product that works wonders symbolizes the implicit philosophy of consumer culture: changing one’s circumstances need not involve political solidarity or appeal to a higher power but instead concerns making the correct consumer choices.

Playing into the fears and desires of the crowd by using emotional testimony and rhetoric to gain their sympathies and devotion is precisely what got poets banned from Plato’s ideal republic. Plato (1955) held that the rational philosopher stood as rightful head of the dialogical public sphere. Yet it was neither the philosopher nor the poet, the orator or the preacher, who were to preside over the mysterious and ineffable values in the 20th century mass media marketplace: indeed, all voices, privileged or persecuted, would capitulate to market values and serve mass media networks if they desired to be heard at all.

The new corporate custodians of symbolic values filled public spaces and discourse with a bevy of friendly, readily disposable, product personalities to banish fears and satiate our desires. Although mass print advertising had already seeded the ground for the growth of commodity culture in Victorian England (Richards, 1990) and throughout Western Europe, by 1914 the adept use of advertising and public relations to shape consumerist impulses, social ideology and national policy gained insidious advantage in the less regulated American business environment. The model citizen promoted by the corporations was a self-satisfied consumer rather than the critical individual striving for personal inspiration—the Machiavellian dimensions of which were deftly portrayed in both Aldous Huxley’s *Brave New World* (1998) and George Orwell’s *1984* (1977). Strasser (1989) critiques the making of the American mass market in which mass produced and disseminated brand name commodities and informational products would come to displace domestic production and personally negotiated transactions of linguistic, economic, even spiritual values. The image of the family dinner around the TV screen was to become standard fair—a meal instantly prepared, over which not a word of poetry was recited as grace and thanks, and no toast blessed the bottled grape beverage.

Ambivalence and Commoditized Consciousness

The commoditization of the psyche was achieved not merely with corporate public relations and marketing executives’ bids for the public’s attention and submission, but also by giving to commodities readily identifiable personalities and superhuman traits—Mr. Clean, who magically appears in a sanitary crisis and whisks problems away, always attractive, charming, clean shaven, does the laborious housework, an ideal husband. He and all these helpful commodity-friends fill public dialogue and domestic

habitats with the hopes of democratic progress and technology's promise to deliver a liberated world (Berland, 2000), wondrously new and improved, right to the front door, with harsh reality only one or two purchases away from perfect ease.

When the objects and persons that populate attention no longer serve as symbols of success and liberty, of ease and style, they lose appeal and ambivalence sets into the popular mind. We are fickle. What lies behind the ever forward-looking consumer society is a rising tide of wasted products and people who have powered its journey and have been expelled in its wake. These are hard but unavoidable facts that utterly contradict the dream of a better society sold to the mass-consuming public (Ward & Dubos, 1972). To poetically remediate personal information environments enacts a political mission—one that is non-conformist and attempts to work against a century of demonstrable success at commercializing public discourse in a manner that neglects the past and dissuades the public from reflecting on what lies just behind and beneath our well-celebrated progress. Guided by advertising and public relations to believe that lifestyle choices are synonymous with democracy, liberty and freedom, our ambivalence can only deepen. Ambivalence, literally, is seeing in more than one direction simultaneously, seeing the future and the past, and reading more than one meaning into every sign, concept and product. The engineers of public consent have long held sway over social and personal values. Owing to the fundamental ambivalence over what remains unattended to in systems of symbolic values, a poetical politics might become indispensable.

Critical Poetics in the Age of Disposable Discourse

The tradition of critical poetics inspired by Walter Benjamin and Theodor Adorno sees poetry as a radical means of re-examining social conditions manifest through linguistic, institutional, and technological codes. Because poets apply an interpretive lens of personal values to the differential potencies of language, they can make a valuable contribution to the critical project of designing a better world. Kaufman (2002, p. 51) distinguishes this branch of critical poetics as “anti-lyric, anti aesthetic, and committed to poetic methods ingeniously associated with technologically oriented reproduction, all in order to effect radical defamiliarization and the renewal of sociopolitical commitment...the formal ability to make lyric itself critical.” Rendering norms of subjectivity within the meta-code of consent in dominant society starts from the smallest units of meaning. Ruthless subjugation of the public sphere by market ideology produces a social spectacle of relentless homogeneity and consumerist address, while systems of governance become increasingly invisible and unanswerable (Graham, 2006). By configuring poetically engineered codes of personal relevance upon the symbolic codes and practices of social engineering, critical poetics can act upon the ideological and material base of the politics of disposability, and upon subjectivities of consumer consciousness. In this same manner, narratives of self are being ethnographically rewritten in the renewed evaluation of consumer subjectivity (Kincheloe, 1997; Thompson, Stern, Arnould, 1998).

To be effective, poetry must encounter its audience not only at the level of elevated reading, but from the position of an activism that grounds social change (Bartolovich, 2002; Macherey, 2006). In many ways, poetry does not fit this description, at least as it is taught in secondary English education. It is closed, distanced from the

social. In classroom experiments, contemporary culture may be brought in to liven things up, but that's *extra*-curricular, time away from the business of teaching and consuming knowledge. Poetry is largely taught as a form of retreat from the contingencies of contemporary life. It is historical; the significance is already determined and the relevance from a non-literary perspective is questionable. It is hardly a market contender (Stallabrass, 1996). If we are not careful, poetry will cease to be taught as a secondary school subject. This would happen at a time when poetic insight might be more urgently needed than it has been since the first mewling and sputtering surges of the telegraphic cable. Poetry teaches people to personalize ambivalence.

The mass media marketplace has certainly affected poetry's fortune, but disregard of poetry in public education cannot solely be blamed on the influence of market logics and mass address silencing the poetic voices of the crowd (Morgan, 2000). Teachers and academics are partly responsible for poetry's diminishing returns, and so are poets (Beach, 1999), on the one hand, abandoning social causes for the esoteric exploration of language, and on the other hand, abandoning language research for the exoteric exploration of popularity and media attention (Lazer, 1996). The divide runs between the expressive acts of writing and speaking (Shusterman, 2000), and although it has been critically challenged (Bernstein, 1986), too few practitioners and teachers work to overcome it. Political poetry enters the streets, the coffee houses, bars, alleys, and places where crowds gather, where it is generally spoken or incanted rather than read, it is ranted rather than researched, it speaks of identity and outrage, or sexuality and desire, and it plays for the attention of the crowd. Because the site of poetry's political resistance plays into competitive market logic, it reproduces that logic through all its public

manifestations and functions. In a competitive environment, popular poetries participate in the same politics they denounce unless simultaneously critiquing the sociopolitical functions of winning and losing. A critical nonconformity confronts those who would aesthetically alter or critically challenge the meta-codes of consumerist society.

A politics that is separated from the poetics of culture and language will cease to articulate openings and possibilities when confronted by ambivalence. The poet works with ambivalence to articulate the uncertain and ineffable conditions of existence, whereas the messages of the mass media seldom delve into or dwell on ambivalence. They seek to persuade the crowd, to alleviate the discomfort caused by feelings of ambivalence and uncertainty, feelings normally repressed by the conscious mind, with the promise of quick restoration of normalcy and business as usual. The further we stray from poetical ambivalence in symbolic systems, the more political discourses will tend toward pre-packaged, hermetically sealed, discursive enclosures; societies will tend toward the expulsion and incarceration of abject persons (immigrants, homeless, poor, disabled, queer, racial other, and so on); dominant ideologies will tend toward intolerance and exclusion; legislations toward privatizations of common properties.

All cultures encounter causes of ambivalence in their midst and, whether they celebrate poetry and art or not, they exhibit the repression and expulsion of the ambivalent feelings. Ambivalence, claims anthropologist Mary Douglas (1970), is the distinguishing feature of excess and waste, as materials and ideations transition between symbolic categories of purity and clarity to filth and dangerous uncertainty. These categories inform the relations of self, other, and society (Rella, 1994); however, as Freud was so keenly aware, the repression or disposal of the troubling causes of ambivalence

does not make them vanish, as advertisers of miraculous commodities might claim. The sources of ambivalence remain present in both individual and society, in the unconscious mind and in the landfill, in the prison and bus shelter, in the fugitive press and the independent media (James, 2004, 2007; Moore, 2007).

A poetics that is separated from politics is one in denial of the fundamental character of language, invariably a social manifestation, even accounting for the distancing inherent in mediation. A poet such as Emily Dickinson may not have had many public readers in her lifetime, but this does not mean that she was a-political. She connected with people personally, poetically and politically, as can be noted in her chosen practice of self-publishing:

Around 1858 she started copying poems and stitching them into little booklets now known as fascicles. These poems, remarkable for their distilled wit, ambiguous manner, and stylistic idiosyncrasies, were shared with friends but apparently not offered for publication” (Eberwein, 2000).

Her work resonated with a poetical politics concerned with the future of society, addressing concerns about the ambivalence of the world from a 19th century perspective that resonates just as deeply today. She connected with others through intensely prolific correspondence and, timelessly, through the manner in which she uses language to cast a prismatic light on humanity. Her writing techniques²⁰ critically examine society by cutting away and purging decorous excess in language until it cracks open, revealing the invisible, brutal politics of disposability, within the system of meaning. Dickinson (1960, p. 374) concludes the poem “He told a homely tale”:

²⁰ For example, Dickinson’s use of ‘capitalization,’ in the quoted passage as elsewhere in her poems, tends to elevate the ordinary and dignify the downtrodden.

If Commonwealth above,
 Or Commonwealth below
 Have missed a Barefoot Citizen--
 I've ransomed it—alive—

Feminist theory, from which the notion of the *personal as political* is derived, (personal problems are political problems), confronts the deeply systemic ambiguity created when mass media networks and market ideology reverse the equation, manipulating personal and domestic desires, fears, ontological values, modes of exchange and systems of meaning (David, 2002). Feminism resists the governing tendency to enact this control through biopolitics—the conditioning not only of thought but also of the body—talking back to systems and institutions that not only oppress difference but in the same instant blame the practices, perspectives, texts, and systemically ambiguous others for all social ills and the failures inherent in the miraculous claims made for consumer culture (Braithwaite, 2002; Lee, 2007). Business as usual implies, therefore, disposing of these symbols of cultural ambivalence buried within the mass-market mind.

One example of challenging dominant discourse using creative, feminist practices of reinstating personal values in the public domain is discussed by Sue Wilks in “Pedagogy” (2008). Critiquing the content of a pamphlet sent home by her child’s school advising parents to audit their children’s progress, she demonstrates “the extent to which a managerialist ethos pervades all levels of the English education sector” (p. 138). Working with Mieke Bal’s conception of *critical intimacy* in a distancing political culture of fear, distrust, and the regulation of personal development from home-schooling to university, Wilks undertakes a collaborative endeavor—feminist, critical, political, pedagogical, and deeply personal—using her “art practice as a means through which to

research the effects of the audit culture upon subjectivity and art education...applying an already transgressive form through which to invite multidirectional and critically intimate working relations with others, the outcomes of which are unpredictable and immeasurable” (p. 152). This underscores the practical, creative and communal work ahead for scholars, teachers, parents, poets, artists, and activists, to recover public culture and critically active teaching practices from the ideological invasion of impersonal and profit-motivated discourses.

Reimagining the source-codes of the consumer culture through the treatment of language is a long-term political project. This is precisely why it is essential to both the critical project and to what Paulo Freire (2004) called the pedagogy of hope, rooted in the boundless human imagination to re-conceive a social spectacle that has fallen, in Henry Giroux’s (2008) words, upon dark times. To enact change through critical and aesthetic literacy practices by reintegrating poetic openness and ambivalence as a source of the discovery of personal values is fundamental to learning how knowledge/power structures embedded in language function politically (Rancière, 2004, 2006, 2007). Language may be one of the few areas, like education, where long-range visions of the future can be seeded, particularly at a time when dominant ideologies and practices are focusing on increasingly short-term, profit-motivated, anti-intellectual agendas (Jacoby, 2008; Mission & Morgan, 2006). Often, things that take time are seen as less worthy, deficient, or impractical; and yet, for all the speed and efficiency of modern life, we are more desperately in need of slow, hopeful, sustainable, compassionate and positive means of attending and existing.

In natural, political, and cultural ecologies, quick fixes are now coming back to haunt us. Systems that for a brief time appeared well-managed, safe and reliable are collapsing under the debt of unacknowledged consequences of unfettered consumerist lifestyles: credit systems, transportation systems, communication systems, education systems, social systems, political systems, all because of a fundamental lack of commitment to their sustainability. Critiquing the military-industrial approach to building the dream systems team, Theodor Roszak (1972, p. 36) nostalgically wrote, “Notably, the good systems team does not include poets, painters, holy men, or social revolutionaries, who presumably have nothing to contribute to ‘real-life solutions.’” Their absence, it should be noted, is anything but accidental. Indeed, it was not until the crowd could be exempted from their influence that it became the controllable consumer mass market of neoliberal capitalism, aided and abetted by the gargantuan voice of the mass media and the unregulated profits and ethos of the corporate elite.

To reinstate poetical and personal values into the political terrain of dominant discourse and literacy practices is not a simple or rapid solution; it relies on the critical “work of audiencing” as creative response to consumer discipline (Cubitt, 2005). Nonetheless, there is a pressing need to do so, if only to identify and critique the practices that lead to indiscriminate waste and unexamined practices of disposability. To do so is not a utopian humanist gesture but a literate praxis. A revaluation of human ecologies from within the public’s own educational and correspondence settings is required—to work methodically within language and through critical pedagogies of writing and literacy (Giroux, 2007). The following section theorizes the conditions of critical theory, practice, and pedagogy as these apply to writing in the post-personal age, when systems

perpetuate symbolic values by which the systems themselves deteriorate, when networks turn proprietary and predatory, and when the politics of disposability and the biopolitics of neoliberal capitalism have become “the organizing principles of everyday life” (Giroux, 2008).

Determining the Site of Indeterminate Change

Contemporary communications and correspondence technologies have greatly complicated the ideological conditions of the popular mind thus far described. Seen together, the social and machine codes, the spectacle of consumerism and the systemic program, the meta-narrative of the market and the informational seme, seem formidably intertwined. The caution against this way of seeing is the chastisement of technological determinism (Bromley, 1997; Feenberg, 1992; Gilles, 1990; Murphie & Potts, 2003; Ropohl, 1983, Williams, 2005; Wyatt, et al., 2000) and the rhetorical summoning of the surfeit of choice among the *excess of the real*, that is, among the products but also the individuals and populations who are blamed and punished for systemic failures: youth, people of colour, immigrants, the poor, the disabled, the homeless, addicted, aged, or otherwise disadvantaged in society. Like its more sophisticated cousin, social engineering (Alexander & Schmidt, 1996; Duff, 2005; also Fisk, 1980; Popper, 1966), the case can be made that technologies’ deterministic relation to ideologies and behaviors is *ambivalently causal*, the semiotic play between form, content, and practice.

Into social engineering a great many disciplines pour efforts, thereby to inculcate modes of social control; among those sciences previously discussed (crowd psychology, public relations, marketing and advertising) are the sciences of education (Bourdieu,

1984, 1991, 1993; Bourdieu & Passeron, 1970; Bernstein, 1973; 1975; 1996; Collins, 2000; Freire, 1989; Howell, 1999), technology (Allen, 2006; King, 1996; Oravec, 1996; Shah & Kesan, 2003), law and economics (Baron, Field & Schuller, 2000; Fine, 2002; Gillespie, 2007; Lessig, 1998). If codified technical systems and networks on the one hand, and the social-spectacle of the mass marketed crowd on the other, are thought to be inseparable, only the symbolic practices of the individual remain free from predetermination, if not free from inculcated predispositions (Bourdieu, 1984), providing the ‘ground zero’ of critical pedagogies and curricula, and the personal world again becomes indispensable as the political site from which the future may be re-imagined.

This is a paradox: the closed agenda and the free radical, the feral hound baying at the doors of the cathedral of hallowed values, or abandoned in the seditious bazaar, the market place, concatenation of the closed and the open source codes (Bergquist, 2003; Raymond, 1999; Zeitlyn, 2003), texts, networks, pedagogies, societies (Mumford, 1986). That the philistine is now accommodated within the cathedral,²¹ and with the cathedral as a mere centerpiece of the mall, a kind of futility enters the enterprise of resistance to an all-consuming Neoliberalism in the politics of mediated culture (Giroux, 2006). Between the social spectacle and the code, many layers of language exist, many forms and procedures that support creative praxis in production or consumption of the material and intellectual wealth of the planet.²² Yet these are frequently overlooked as sites of

²¹ For example, spambots now inhabit the *overnet*, the site of critical technological organization and control, from which they deluge the public with junk email (Kreibich, et al., 2008; Markatos and Keromytis, 2006).

²² Creativity in mass production enters into the cathedral as technological innovation, and selling the desire for the new and disgust for the old (disposability). Of creative consumption, the Birmingham School of cultural studies was especially forward in their defense of the mass media, ‘low-art’ consumption

resistance and political change. Disposable populations are produced by the systems that rely on them, and in crowd-like fashion—through the persuasive power of institutions and mass media—they assimilate the values of those who oppress them as their own.²³

Educators need a way of reimagining—reverse engineering if you will—the detrimental waste-products of the social spectacle to create a chance for youth to experience conditions of democratic equality in the systemic context of disposable products of mediated representation, in order to find and maintain personal value in post-personal times. This is all the more pressing as we are witnessing an increasing acceptance of a biopolitics of disposability, met with an exhaustion of the critical project in both education and social theory alike (Giroux, 2006). As Giroux (2007, p. 31) states, “public and higher education may be one of the few spheres left where the promise of youth can be linked to the promise of democracy.” Although greater access to the Internet is undeniably part of the solution toward equality in the knowledge economy, without critical interrogation of systemic excess, non-knowledge²⁴ and values of disposability, access leaves aside the critical in the pedagogy, and sidesteps the question of (in)equality, censorship and abuse currently manifest in high-tech, consumerist democracies. Access is a two-way street: individuals gain access while giving it, becoming the disposable product of an attention market. The wasting of human and imaginative potential is not the product of access, but the product of excesses in an uncritical system of consumer values

aesthetic of working-class culture (Stuart Hall, John Storey, Richard Hogarth, and Raymond Williams). It is necessary under the aegis of new technologies to also question this form of agency.

²³ The systemically dispossessed come to see their oppression and exclusion as inevitable and necessary. This phenomenon is discussed in terms of the capillary effect in Foucault (1991), and symbolic violence in Bourdieu (1991).

²⁴ This reference to George Bataille’s “The Unfinished System of Nonknowledge” (2001) connects the importance of systemic excess to cultural production, as an ecstatic and mythological vector of human experience that can provide the richest resource for personal meaning and social critique.

supplanting more intimately acquired personal values. Education requires attention to excess, as does critical theory, to revitalize the agenda of working from the discursive center toward a sustainability and equality of the margins.

Recognizing that new circumstances of an information age redistribute centrality within political discourse, the technological means of production take a new guise as the technological means of attention, our personal network, as a parallel system but one implanted, ideologically, in the individual via consumption, not production (Goldhaber, 1997). At the same time, these new practices provide the means of recreating consumption itself, a negotiation of values of relevance and disposability taking place between culture, society and the individual.²⁵ As Lanham (2006, p. 9) states:

Alternatively, we might locate ‘capital’ in this new [attention] economy in the literary and artistic imagination, the powers that take the biogrammar we inherit and spin from it new patterns for how to live and to think about how we live. Capital, in this view, lies in the cultural conversation.

This direction of critical inquiry does not befit the temperament of *action, now!* The emphasis on immediate gratification and the *actuality* of the critical project is itself an attempt to silence and impeach critical theory in a manner that is consistent with neoliberalism’s routing of its enemies.

Rancière’s (2004, 2006, 2007) aesthetic analysis of the political problem posed by a dominant discourse of hatred toward the ideals of personal value, such as are interpolated in the concept of democracy, in which the critical voice becomes subsumed

²⁵ The complex relation among these codes of person-people-public, or individual, society, and culture, as dealt with herein, have been graphically schematized to save, as they say, 1000 words. See *Appendix A*.

within the spectacle it opposes, takes the direction, by way of some solution, to capacities of the disabled, the voices of the voiceless, treating them not as surfeit but central to political dialogue. He questions the disappearance of the critical arts as a political player—agency of the *bricoleur* that is activated in “the zone of immediate contact with generating reality” (Bakhtin, 1941, quoted from Godzich, 1985, p. xxvii). As Jacques Derrida (1970, p. 256) states, “the engineer is a myth produced by the bricoleur,” a myth now technologically alloyed to the myth of the sorcerer’s apprentice.

In the economy of attention, images of suffering, pain, death, poverty, violation, devastation, and systemic oppression stimulate the media market (Dyson, 2000). Such conditions make war a form of mediated mass production, a victory of the military-industrial-entertainment complex over the social contract (Virilio, 2005). The social spectacle extends its influence through globalized markets of information technologies that are not neutral. Desperation, disability and disadvantage support the market logic that inferior populations do not have what it takes to capitalize on their own labour, to *make it* in the competitive marketplace. These crowds cannot be left to their own devices, and if they become uncontrollable and systemically ambivalent, they must be repressed. After foreclosures, incarcerations, legal appropriations, and other values have been extracted, disposable populations are made invisible and yet held responsible.

The Slow Fix: Rewriting the Social Contract

In “Ideology and Material Form,” Debord (1995) writes:

Those driven by the abstract wish for immediate efficacy [sic] obey only laws of the dominant forms of thought, and adopt the exclusive viewpoint of *actuality*. In this way delusion is able to reemerge within the camp of its erstwhile opponents. That fact is that a critique capable of surpassing the spectacle must know how *to bide its time*. (p. 154)

North America is deluged with urgency: It has no time to think in the wake of actuality, under the dual aspects of commercial success and technological modes of progress.

Although collage has many North American pop culture manifestations, in sampling, cut-ups, hiphop, and so on, recycling the products of the entertainment industry, does not, unfortunately, provide much examination of the political agency of this practice (Taylor, 2004), albeit some artists, such as Paul Miller (aka DJ Spooky), have written admirably on the subject (Becker, Crawford & Miller, 2002; Miller, 2004).

Artists everywhere have turned a blind eye to the political nature of their success in the marketplace. Lured by fame as much as by wealth, technological market values dictate the conditions under which artists' messages are composed and received, abandoning the riches of personal meaning in the local communities they once served, becoming formulaic identities, the very stereotypes their art forms oppose (Berube, 2002; Collins, 1989). Political forms of art that historically challenged norms and conventions of bourgeois society, through collage, pastiche, improvisation, shock, montage, and so on, attempted the impossible—reframing the critical project through words, music, visual representations of what lies underneath the postulated ideals of society, by putting all levels of its stratified discourses together into critical personal connections and commitments wrested from the dominant social order (Schneiderman, 2006; Szekely, 2008). These modes of political expression engage a slow revolution, one with positive

implications that can be drawn out from, as well as into, the curriculum of critical pedagogies (Gaztambide-Fernandez, 2008; Morrell & Duncan-Andrade, 2002).

The process of recoding the social contract must be a consensual project, one committed to regenerating the commonwealth of values and knowledge where a “Barefoot Citizen” is not “ransomed-alive.” A project of this long-range scope needs to be both critically and publicly protected from antagonistic plundering by private interests and the enclosures of traditional or attention markets. This concern is well articulated in David Bollier’s remarkable treatise *Silent Theft* (Bollier, 2002), in which he demonstrates how markets will attempt enclosure even of the inalienable facets of our existence:

This is the objection that many people have to the patenting of human gene code or to selling captive audiences of schoolchildren to national advertisers. Allowing the market to exploit these ‘resources’ is seen as degrading to our sense of personhood, our sense of community, and shared civic and public values. It is a boundary that is frequently violated and for which there are few easy remedies. (p. 50)

Turning our critical attention to a poetical politics, one founded on principles of re-sourcing of excess, befits a powerful stance of personal values amid the marketplace aesthetics and cash culture literacy (Hamblen, 1990) that are depleting the public commonwealth, a stance against the alienation of personal agency from eco-political diversity.

Under the aegis of the politics of disposability, the social contract has been broken: in this toxic political ecology, democracy, equality, personal worth, and the promise of a future—that promise to which critical theory and pedagogy are bound—become an “increasingly fragile if not dysfunctional project” (Giroux, 2008). However,

the problem of trying to achieve equality within systems pre-scripted, coded, and environmentally conditioned to produce inequality remains a dour challenge for critical thinkers, parents, teachers, poets, artists, theorists, and everyone who dreams of a brighter future for the world's youth. Market logics offered a quick fix in response to this ambivalence of consumerist values, and in many ways the public has become, as Benjamin (1968, p. 166) states, "a customer" produced by and for the market. The quick fix has become a bind, rather than a bond. The agency of the crowd succumbs to the engineers of the marketed mind: minding the market is a rudimentary task of writing post person. Many of our treasured common goods, rights, stories and spaces have been privatized, and we have watched it happen, helpless to reverse an increasingly self destructive way of life, which is, therefore, not a way of life at all. When we go looking for hope to guide us, when we seek the personal values of the social contract, we find that it has been defined and identified as disposable. It is already out there in the trash with the rest of the waste of human and material resources and potential.

Perhaps, to reverse the equation, theory might want to start small, with critically ambivalent practices that reevaluate the smallest, most insignificant and disposable aspects of society; the environments, texts, and people no one pays attention to, detested and expelled as waste from the system. At the same time, activism might need to start large, globally, by diversifying the web with a commonwealth of expression: a critical, heterogeneous, informative, aesthetically engaged, open-ended, imaginative, free and resistant culture; a poetically political culture that can begin reworking the symbolic codes underlying the social spectacle, and can do so by reexamining the repressed, disposable worlds that contemporary market society rather too passionately ignores.



Figure 3.1. The Fantasmagoria

CHAPTER FOUR

Holes in the Dialogical Net: Origins of Email Spam

Vikings In The Digital Diner

Spam email gets its name from a quirky sketch by Monty Python created in 1970.²⁶ The studio camera takes in a noisy diner. An airborne husband and wife descend into frame in sitting position. They land on the only empty chairs in a room otherwise occupied by a crew of Vikings in horned helmets and fur. The joke's premise is that this is a post-WWII British diner and almost every breakfast item on the menu includes SPAM™ and the 'woman' (played by Graham Chapman) doesn't like spam. David Crystal (2001, p. 107), writing on *Language Play*, commends the Python's effective "use of funny voices, exaggerated regional accents, deliberately inappropriate lexicon, the excessive use of a single sentence pattern—or just breaking normal rules of linguistic interaction. Playing with lexical repetition is the hallmark of the famous 'Spam' sketch." As the waitress (Eric Idol) rattles off the menu:

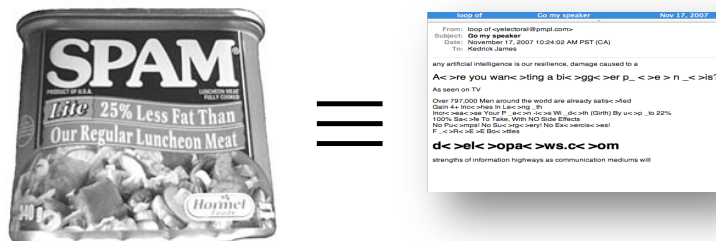
Well, there's egg and bacon; egg sausage and bacon; egg and spam; egg bacon and spam; egg bacon sausage and spam; spam bacon sausage and spam; spam egg spam spam bacon and spam; spam sausage spam spam bacon spam tomato and spam; spam spam spam egg and spam; spam spam spam spam spam spam baked beans spam spam and spam...

the Vikings strike up a chorus chanting "spam, spam, spam, spam" in jolly absurdity.

²⁶ Available online at <http://video.google.com/videoplay?docid=5627694446211716271>

According to Crystal, the spam sketch “lives on in the term *spamming*, now used on the Internet for the unwanted sending of junk e-mail” (p. 108). A portmanteau of SPiced hAM, SPAM™ became a renowned trademark of the Hormel Corporation for their signature luncheon meat. The mottled, gelatinous, pink meat comes in a distinctively shaped can. The first can of SPAM™ was produced in 1937, and during World War II, Hormel provided allied troops with fifteen million cans of SPAM™ a week. SPAM™ was a saving grace for starving soldiers and war-rationed civilians: Dwight Eisenhower, Nikita Khrushchev, and Margaret Thatcher equally praised Hormel’s role in the Allied victory (Hormel, 2007). Over seventy years, billions of cans have been sold. Hormel did not initially embrace the usage of SPAM™ to mean electronic junk mail, but in 2001 the company relented and no longer objects (Glasner, 2001). Spam’s new meaning grew up in the wilds of cyberspace and is a linguistic mutation that cannot be reversed. The 1998 *Canadian Oxford Dictionary* (Barber, 1998, p. 1991), defines spam as computer slang meaning, “an advertising message sent indiscriminately to a large number of newsgroups, mailing lists, etc. b. such messages collectively.” Spam is also a transitive verb.

Figure 4.1. From SPAM™ to spam



Growing up vegetarian, I doubt I'll ever eat SPAM™. Canned luncheon meat is decidedly unappealing. For many people, getting spam email is equally unappealing. It sits in their inbox unopened or is discarded upon sight (Grimes, Hough, Signorella, 2007). The war in cyberspace is fought against spam, not with it. Spam undermines the ethical values of network discourse (Capurro, 2006; Rooksby, 2007; Spinello, 1999; 2001), it threatens to overwhelm cyberspace with junk mail. Industry estimates exceed 100 billion spam emails sent daily, congesting and polluting social networks and electronic correspondence systems (Kreilbich, et al. 2008; Specter, 2007, August 06). Increasingly, people the world over rely on digital technologies as a primary means of communication and connection with the world at a distance; email is crucial to contemporary correspondence (Krug, 2005). Email integrates the speed and efficiency of oral communications with new messaging literacies that are shaping contemporary public and private discourses—even homogenizing them (Baron 2000, 2003) and altering the in/formalities that govern social relations (Danet, 2001).

Spam erupts from the paradoxical nature of information. Information and communications technologies (ICT) present us with a systemic paradox in relation to the value of information. Stuart Brand (1987) puts it this way:

Information Wants To Be Free. Information also wants to be expensive. Information wants to be free because it has become so cheap to distribute, copy and recombine—too cheap to meter. It wants to be expensive because it can be immeasurably valuable to the recipient. That tension will not go away. It leads to endless wrenching debate about price, copyright, 'intellectual property,' and the moral rightness of casual distribution, because each round of new devices makes the tension worse, not better. (p. 202)

Spam comes into direct conflict with the global democratic aspirations of civil society in an information age. Contemporary network society and digital culture were built with, and still rely on principles of trust, cooperation and sharing. In this aspect, computer networks were created to be open and inclusive (Noam, 1987). They have also been designed to provide the function of personal and group correspondences that are enclosed and exclusive. In this chapter I will describe the brief history of how commercial interests armed with cheap bulk mail software closed the gap between the private citizen in public space and the corporate citizen in personal space, and in doing so, gave rise to a crisis of sustainability in systems of electronic correspondence; a series of minor events which led to giant holes forming in the dialogical net.

ARPANET and the Conceptualization of the Computer as a Communication Device

The Advance Research Projects Agency Network, or ARPANET, was the progenitor of the Internet and electronic mail systems. As Russell (2001, p. 2) notes, “the ideas that initially shaped the technological developments and the use of the Internet were based on ideas of decentralization and non-hierarchical definitions of the medium.” This suited a closed network for military and scientific collaboration. Russell continues, “the collaboration of the military and scientific community was encouraged through a climate of ideological consensus...the consensus built upon a number of normative constructions, ranging from ‘associationalism’ to the New Deal liberalism.” The development of the network served a variety of policies and interests, including commercial, political, military, scientific and sociocultural interests. Over time, the relationship between these interests has changed, momentarily in the early 1990’s with the creation of the commercial Internet and World Wide Web, when the concept of the global network

became more public, more literate, and a privatizing, commercial ideology became more dominant (Sarikakis, 2004).

J.C.R. Licklider, first head of ARPA, is credited in the *ARPA Completion Report* (BBN, 1981) for inspiring a move away from the notion of the computer as an arithmetic engine, toward the notion of “the computer as a communication device.” The move was intentional, befitting a vision of an all-encompassing network model, in intergalactic linking (Licklider, 1960; Licklider & Taylor, 1968). David Clark states “the great success of the Internet is not technical, but in human impact” (in Malkin, 1992, p. 15). Community among the early ARPA researchers featured prominently, necessarily so; the project converged from different sites, each having their own computer systems. The systems could not interact until a democratic set of protocols had been developed and the systems had been joined, physically, by cables crossing America (Hauben & Hauben, 1997). The ARPA community developed a research culture with broader social implications for the development of computing culture.

A network Program Plan called “Resource Sharing Computer Networks,” passed by ARPA’s director in June of 1968, outlined the two technical challenges:

1. To construct a “subnetwork” consisting of telephone circuits and switching nodes whose reliability, delay characteristics, capacity, and cost would facilitate resource sharing among computers on the network.
2. To understand, design, and implement the protocols and procedures within the operating systems of each connected computer, in order to allow the use of the new subnetwork by the computers in sharing resources. (ARPA, II-8 in Hauben, 2007, Part 1)

Four university research centers were linked in the first phase of ARPANET.²⁷ Leonard Kleinrock (1972) and Steve Crocker in UCLA Berkeley were working on a project to measure channel-sharing capacity of a hypothetical network. Their work evolved into the Network Measurement Center, later the Network Working Group (NWG), responsible for developing the dialogic protocols that would come to shape the process of creating standards for network interaction and use (Hauben, 1997). The net grew quickly, as many other universities were linked. At the same time businesses became active in producing a cheaper range of computers intended for small business and home use.

Hauber (2007) emphasizes the significance of Crocker's notes taken during the NWG meetings. Crocker (*RFC 1000*, 1987, p. 3) explains: "The basic ground rules were that anyone could say anything and that nothing was official. And to emphasize the point, I labeled the notes 'Request for Comments.' I never dreamed these notes would be distributed through the very medium we were discussing in these notes."²⁸ Comments are a feature of the Internet. The posting of comments is a routine function in almost every social networking development online, and many uses of email suit this function as well. A request for comments (RFC) is a significant dialogical a priori: it is an open and inclusive call, yet it is constrained by the conventions of commentary. The RFC strikes a dialogical balance, an ideological bargain, and embodies a system of mutualism and democratic accord.

²⁷ The first four research centers connected by ARPANET were University of California-Los Angeles, Stanford Research Institute, University of California-Santa Barbara and University of Utah.

²⁸ This politeness of request for comments was in part due to the fact that these notes were submitted to high-ranking U.S. Department of Defense officials with whom Crocker and fellow researchers had no personal contact.

The RFC became standard network developers' discussion format for sharing information, synchronizing efforts of the research community based on common goals (Rheingold, 1994). This spirit of organization and innovation spurred on development at a much faster pace than one controlled by a select group, and is today embodied in the free and open source software movement (Siemens, 2003). RFCs took the formal characteristics of an open letter, and this format provided initial dialogic conditions upon which the vast complexity of the Internet and email systems and practices unfold.

Early Email and the Automation of ARPANET correspondence

The protocol system diversified into seven central network protocols serving different purposes (Hauben 2007). The first to be introduced was forward transfer protocol in 1973, used for transferring files across network space. Another important protocol was the 1982 publication and widespread uptake of SMTP, or simple mail transfer protocol (Peter, 2004). In March, 1972, the first personal electronic message²⁹ was sent between two adjacent computers at the BBN lab³⁰ in Cambridge, Massachusetts by email pioneer Ray Tomlinson using programs he had written. The first ARPANET email application was created “when he updated SNDMSG by adding a program called CPYNET capable of copying files over the network, and informed his colleagues by sending them an email including the new program with instructions on how to use it” (Stewart, 1996-2007). Tomlinson's program CYPNET combined the potential to receive, read, write, and send electronic text files between different computers. His creation of

²⁹ Tomlinson's first message, “something like QWERTYUIOP” presaged the cryptic spam-like messages that the email programs he created would eventually produce.

³⁰ Bolt, Berak and Neumann (BBN) were the same corporate contractors hired by ARPA to build the switches, routers and other network infrastructure for the first phase of ARPANET.

email is overshadowed by his introduction of the @ symbol into email addressing, which was only universally adopted almost two decades later for the Internet.

Commenting on the surge in popularity on ARPANET, Licklider and Vezza (1978, p. 1331), state that by the fall of 1973, “almost everyone” building ARPANET was corresponding via the network:

It soon became obvious that the ARPANET was becoming a human-communication medium with very important advantages over normal U.S. mail and over telephone calls. One of the advantages of the message systems over letter mail was that, in an ARPANET message, one could write tersely and type imperfectly, even to an older person in a superior position and even to a person one did not know very well, and the recipient took no offense. The formality and perfection that most people expect in a typed letter did not become associated with network messages, probably because the network was so much faster, so much more like the telephone.

Reaping the mutual benefits of the speed and informality of telecommunications with the deliberateness of epistolary communications, this fusion of oral and literate modes of discourse that electronic mail and message systems inspired created a more egalitarian, participatory ethos enacted through new social habits for online interaction (Baron, 1998). ARPA researchers concluded in 1973 that email accounted for 75 percent of network usage (Hobbes, 2006). Nevertheless, development of the protocols was gradual during the 1970's. According to Partridge (2008), not until the beginning of the 1980s did email as we know it today start to take shape, with Vint Cerf and Jon Postel's *RFC 771*, (1980) followed by Postel's revision of *RFC 821 Simple Mail Transfer Protocol* (1982), Crocker's *Standards for the format of ARPA-Internet text messages* (also RFC 821,

1982), and subsequently the *RFC 918 Post Office Protocol* of John Reynolds (1984), now POP3 (incorporating instant messaging protocols), adapted for the Internet in 1995.

The Origin of Spamming as a Tactic of Social Exclusion

The cordial and professional character of computer network discourse in the 1960's and 1970's became less restrained when the net grew more populated in the 1980's. The use of regular phone lines and modems to transfer digital information opened access to computer networking through commercial services such as TELENET, started in 1974 by Larry Roberts, a former ARPA director (Rheingold, 1994). The academic and the commercial host servers ran Bulletin Board Systems, Multi User Domains, News Groups, and email services (Padlipsky, 2000). To varying degrees, systems administrators enforced protocols governing netiquette (proper online behaviour).³¹ Good netiquette was not always practiced. User groups monitored their own memberships and posting behaviors. Access to the computer network made it possible to *ghost* or *post* messages in response threads. One could peripherally participate (Lave & Wenger, 1991) without adding to the dialogue. This ghosting prefigures the ubiquitous surveillance and insecurity that was to follow as ghosting came to include not just newsgroup postings, but private correspondences as well.

In 1978, small computers and the manufacturing of modems for dial-up services entered the broader, non-academic market. Niche industries producing modems and network software sprang up to meet increasing public interest, and according to the Computer History Museum (2006), 1978 was a watershed year when “the ARPANET

³¹ See *RFC 1855*, (Hambridge, 1995) available at <http://www.dtcc.edu/cs/rfc1855.html> .

experiment formally [was] complete.” Public participation began with the USENET, hosting shell scripts written by Steve Bellovin of the University of North Carolina to host exchanges with Duke University, and subsequently adapted to run newsgroup bulletin board services (Hedley, 2006). The scripts engineered the model of client servers that do the work of posting information from a private source to the public domain according to the machine-interpretable protocols. Within the next few years, computers would start to be seen in small business and high school settings. The 1980’s computer market began to rapidly proliferate, gradually moving toward a more commonplace domestic computing experience.

Not all user groups were formally moderated. In addition, active groups did not always have an open door policy to participation. If a newbie to the group was wasting time with irrelevant or disrespectful commentary and the group had no moderator, it was difficult to exclude someone or dissuade an intruder from sticking around. In this new literate environment, privacy and inner circles were desirable and yet problematic to maintain (Partridge, 2008). Some individuals used the technique of *trolling*. Trolling is hacker slang for baiting discussion groups with questions or opinions designed to outrage.³² When the diatribes subsided and the provocateurs have had their fill of attention, they would leave the cryptic message “YHBT,” meaning “You Have Been Trolled.” Intergroup conflicts and cooperation came into play, adding a new dimension to dialogical practices, wherein an inner circle of users controlled dialogue through a codified subtext. Wallace (1999, p. 102) writes, “effective trolling episodes are treasured

³² Definitions for hacker terms are adapted from *The New Hacker’s Dictionary* (Raymond, 1996) also available online at http://www.ccil.org/jargon/jargon_toc.html.

by the ingroup and the successful troller gains more insider status...the observable discussion in the forum is very deceptive. There is an insider subtext underlying it that remains concealed from the newbie outgroup.” The anti-social, gendered, depersonalizing problems of technocracy—an antithesis to democracy—had entered online social organization (Franklin, 1990).

Another means of dealing with unwanted intruders in network forums was a practice known as *flooding*, which in hacker terminology refers to overloading a system with information causing it to slow, malfunction, or crash. Flooding a newsgroup or bulletin board service was akin to shouting through a megaphone in a study hall. The technique of jamming discourse with excessive, irrelevant data took forms that were recognizable to the ingroup, and annoying to the outsider. In some cases, a large picture file was uploaded. Average 1980’s modem speeds were 300 bauds per second, and even with the cutting edge 1200 bauds offered by TELENET, the dominant phone-to-network service provider, a single image file could take over an hour to download. Most network forums were text-only for that reason (Stefik, 1999). Another method of flooding was to type a message, copy it, paste it over and over, then upload a seemingly endless repetitive message in the hope of driving the uncommitted and merely curious away. Although no one can say who first decided to use the text of Monty Python’s spam sketch to flood bulletin boards, it caught on. Spamming initially meant to overload public discussions forums with excessive information, like the Vikings in the digital diner. And hence the term was coined for net abuse and spam entered the digital age.

The Origin of Spam to Mean Net Abuse through Bulk Posting

By the late 1980s, the term *spam* was being applied to two forms of messaging: a) flooding bulletin boards with extremely large messages that would obstruct normal communicative relays; b) a repetitive bulk posting that did not *specifically* address the interests of the online participants. In both scenarios, online discussants reacted to social relations of inclusion and exclusion, expertise and initiation, and both cases involved intentional acts of bulk data dumping to obstruct the regulated flow of communications between the component individuals of an online social network. Informational excess played the role of rejecting participants from the dialogue and monitoring inclusivity with insider subtexts. The combination of a speech-like dialogical sphere with the disembodied distancing provided by mediated networking unseated the civil standards of discourse characteristic of the ARPANET community, with its open letter modalities. New forms of literate personal conflict arose, notably among them *flaming*, the unrestrained act of verbally attacking another cyberspace individual. Flame wars could be extremely bitter, longstanding, and intergroup flaming was also practiced.³³ The majority of these forms of textual excess were neither commercial nor involved email; originally, spamming was the opposite of proselytizing. Today, spam is better known in its nominal form as unsolicited, mass mailed, email advertisements. Spam definitions still bear this distinction between UBE and UCE, or unsolicited *bulk* and *commercial* email.

The original ARPANET infrastructure was not considered public, nor was it an appropriate marketing venue, even for related technologies, as Digital Equipment

³³ The now classic example is the Meow Wars of 1996, which formed the basis of what meowers called USENET performance art (see <http://www.nationmaster.com/encyclopedia/Meow-Wars>).

Company (DEC) salesman Gary Thuerk discovered on May 3, 1978. Commonly touted as the first act of commercial spamming (although it was neither email, nor called “spam” at the time), Thuerk manually typed four hundred West Coast newsgroups into the header of a cross-posted message to be relayed over ARPANET (Stoodley, 2004). In the body text, he advertised DEC’s new line of mainframe computers. He met with a wave of outrage, most of it directed at the use of ARPANET to solicit sales, some of it at the audacious length of the 400-address header as one had to scroll for pages to find the actual sales pitch (Hedley, 2006). Although Thuerk apologized for his impropriety, he did sell five systems at one million dollars a piece from this advertising venture, and achieved dubious fame as “the father of spam” (Smith, 2007).

The textual ecology of the pre-Internet era network computing posed difficulties to definitive calls about what was junk or excess information as opposed to finding something personally offensive but discursively integral to the discursive range of group discussions. Using newsgroups as a means of broadcast advertising, proselytizing, promoting, and otherwise seeking attention was generally considered not fair use. It defied good conversational dynamics; but controlling these digital outbursts also raised the specter of limiting the democratic freedoms that computer-based networks provided, to which most early users held deep affiliations (Dahlberg, 2001). Thus spamming was not just a nuisance, but touched upon the newly evolving digital communicative ethos. However, drawing a hard and fast boundary between legitimacy and disposability was not easy. As David Sorkin writes in his legal history of spam, “the controversies surrounding spam, therefore, tend to relate less to its legitimacy than to how it should be defined, how important a problem it is, and what, if anything, should be done about it”

(Sorkin, 2001, p. 327). Before the commercial Internet in the early 1990's, responsibility fell upon the network administrators to deal with the problem of defining and canceling spam messages.

In a culture of anarchic, free-spirited expression, censorship is not a popular cause. Cancelling publicly posted messages was an onerous task. Network administrator Seth Breidbart developed a calculus for measuring the severity of newsgroup spam. Cross-referencing the number of multiple and cross posts (replicated posts being more severe than cross posts, where replicated is “substantively identical”) over a 45-day period, any message scoring above 20 on his scale of *spamminess*, known as the *Breidbart Index*, was declared spam and the offending user's postings and participatory rights were cancelled (Lucke, 1997). The *Breidbart Index* did not concern the content of the message. Instead, it took a volumetric approach to spam classification, one that identified repetition of information as the primary discursive offense committed by spammers. Today the volumetric approach to spam classification is still used in tandem with content filtering in order to provide effective defenses against the onslaught of spam.

Content filtering of spam messages was not applicable during the USENET era primarily because from 1971 until the arrival of commercial email accounts two decades later,³⁴ digital advertising—with a couple exceptions—was a non-issue. Until 1993, most messages canceled as spam were multiple, bulk postings that had a religious screed or fit the “Make Money Fast” pyramid scheme genre littering late 1980's and early 1990's network correspondence. Bulk, indiscriminate posting became known as spam in 1993,

³⁴ While the National Science Foundation (NSF) opened the Internet to commercial use in 1991, this move was preceded by opening email to commercial use on MCI Mail in 1989 (see <http://www.ziplink.net/~lroberts/InternetChronology.html>).

after Richard Depew's controversial attempt to rid the USENET of bogus posting. As Internet historian Brad Templeton (2008) states, Depew had wanted to automate moderation of USENET. To this end, Depew

had been playing with some software to perform the retro-moderation task. His software, called ARMM, had a bug, and he ran it, and ended up posting 200 messages in a row to news.admin.policy, the newsgroup where people discussed the running of the net...and some people, knowing the term from MUDs [multi-user domains], called it a spam. (pp. 5-6)

According to Templeton, the first spam to fit the definition of net abuse occurred shortly after, when Clarence Thomas of St. Andrews University cross-posted to every newsgroup on USENET a message entitled "Global Alert for All: Jesus is Coming Soon." This greatly annoyed people, and Thomas apologized for sending out a spam. This appears to have sedimented spam as the name for an abuse of cyber discourse through willful, excessive cross posting and repetition of a message.

The Early Email Era of Spam: 1993-2003

Four months later after Thomas's posting, spam took a commercial turn from which it would never look back (Zdziarski, 2005). Two married lawyers, Laurence Canter and Martha Siegel from Phoenix, Arizona, also posted to all 8000 Usenet groups, but this time with a commercial message advertising their services to help people apply for the U.S. Green Card lottery, marketed as the last chance to win permits to work legally in the U.S. Another wave of outrage followed, but this time no apology was forthcoming. Instead, Canter and Siegel reveled in their notoriety and published a book titled *How To Make A Fortune On The Information Superhighway* (1995). As Robert

Sobel (1995, May 1) stated, “the authors deal with the arrival of people like them, motivated by commercial concerns and not the sheer joy of roaming the highway, as the analogue of civilization in Cyberspace.” Their fortune came as just desserts: They divorced not long after and, in 1997, Canter was disbarred by the State of Tennessee, in part for spamming. Aided by broadcast media attention, they inspired copycats. In December 1994, Michael Wolff & Company, Inc. (a subsidiary of Random House) started spamming Usenet groups with ads for Internet-related books. This gave rise to the first anti-spam vigilante who went by the alias Cancelmoose (Zdziarski, 2005) and used a cancelbot to perform mass cancellations of purported spam newsgroup postings, many of which were Wolff’s, thus sparking the first wave of Internet spam wars. Spam growth was exponential, and now increasingly turned to email as its primary venue.

In 1995, Jeff Slaton, self-proclaimed “Spam King,” began email marketing. Slaton had the nerve to charge five dollars to be removed from his email lists. Public pressure caused him to stop seven months later, but like Kevin Lipsitz, Stanford Wallace, and other early email spammers, promises to stop spamming were not kept. In court, they pleaded their right to send unsolicited commercial email as guaranteed by the First Amendment of the U.S. constitution. The 1997 *CompuServe vs. Lipsitz* case declared CompuServe’s network to be private property and unsolicited mail to be trespassing, and therefore the First Amendment did not apply (Quo, 2004). This ruling typified those to follow from the U.S. judiciary (Alongi, 2004), although in the same year, Wallace was testifying before the U. S. Federal Trade Commission’s first hearing on “Internet Consumer Privacy” in favor of the right to send unsolicited email.

Automated Spamware, Fee Mail, and Block Lists

The first commercial program designed to automate commercial spamming was called Floodgate, marketed using its own automated distribution software and sold for one hundred dollars. Zdziarski (2005, p.7) writes:

Floodgate ushered in a new generation of do-it-yourself spammers...

Floodgate provided the tools for just about anybody to jump on board. Compared to the \$400 to \$500 spammers were charging to send a single distribution, \$100 was a great deal."

In the summer of 1995, the first lists containing over two million email addresses were available for sale and email spamming was becoming an industry. The battle of automated messaging had begun and *remove lists* appeared with commercial mail-outs, although these were often ignored. Other proposed spam prevention schemes involved imposing a fee, a postal levy. The fee was not conceived in monetary terms; the first fee mail variants were challenge-response types, making the sender's computer answer a calculation problem before the message could be sent (Dwork & Naor, 1993). This would slow down the sender's computer sufficiently to prevent rapid mass mailings. The fee mail system places the costs of dealing with waste information on the sender rather than the Internet Service Providers (ISPs), who pass the expense onto the end user through subscription fees. Time-based, and monetary, fee email solutions failed to take hold in favor of providing universal access to email (Anderson, et al., 1995).

Public response to digital email stamps, server tickets, computational memory binding, and so on (Abadi, et al., 2003, December), is negative. The public's fear is that this will lead to greater infrastructural costs and a blossoming of rationales for increasing

user fees once such a system is instituted (Haas, 2004; Hansell, 2004). People hate spam, but not enough to want to pay per email. Even at a fractional cost, paying per message represents a fundamental ideological shift that email users do not support—a move away from informality, transience, and the conversational tone of discourse. The public finds monopolization of email unacceptable, “because it amounts to taxation without representation, and would likely cause a ‘virtual Boston Tea Party’” (Lyman, 2004, p. 2). Responsibility for sustaining the environment of electronic correspondence winds up with systems administrators, ISPs, and end-users, usually in that order. If 1995 marked the proliferation of spammers, 1996 marked the increasingly hostile and technologically sophisticated arsenal they used. But it also marked the beginning of the anti-spam campaign’s integration into a cohesive force and, within a year, the fledgling stages of the anti-spam industry were breaking through the digital waste heap.

Other strategies for stemming the tide of spam developed around the burgeoning anti-spam movement and, in July of 1996, U.S. based Spamhaus came into existence.³⁵ Spamhaus set itself the goal of hunting down spammer gangs, and many legal and technological battles ensued; by providing lists of ISP’s hosting these spammers, network administrators were able to block mail from those servers, greatly reducing the amount of spam they received. The success of Spamhaus inspired other organizations and the first stages of international anti-spam cooperation. One organization, MAPS, created Realtime Blackhole Lists that were constantly monitored and updated. Once blacklisted, the server would need to show compliance with fair use policies or remain in the real time black hole. However, this method punished the entire ISP for the behavior of one domain.

³⁵ See <http://www.spamhaus.org/organization/index.lasso>

Updating *blocklists* and *blacklists* became automated; large ISPs refresh their lists every few minutes (Paganini, 2003). Consequently, all servers subscribing to the list, which may include tens or hundreds of millions of users, reject the blocked provider's email. If amends are not made, they became permanently blacklisted and suffer the *Internet Death Penalty*. This system of spam prevention places the onus of responsibility on ISPs to monitor their customers' email behaviour. Sometimes the spammer owns the server, but more often than not, they move to new ISPs, registering under false names and pretexts.

Blacklists were originally created from offending email submitted by users, headers intact, to organizations such as Spamhaus, MAPS, the Network Abuse Newsgroup and the U.S. Federal Trade Commission. Although more commonly used than whitelists, blacklists are, however, *after the fact*, and require continuous upkeep in order to be effective. Monitoring Internet bandwidth use gradually replaced dependence on users, and is considered more rapid and effective, but the problem of blacklisting has not been resolved. Spammers were not slow to recognize their vulnerability and to find a solution. In 1997, the term "open relay" was coined to mean the use of a secondary server to port anonymous messages. Open relays became an enormous problem, as many server administrators were unaware that their property was being abused, but paid the Internet price. In addition, open relays allowed spammers to move in stealth because the relay's address, not their own, was used to provide sender information. It took several years for the problem of open relays acting as spam conduits to be controlled through public awareness campaigns, online databases such as Open Relay Behavior-modification System, and through SMTP and server-software improvements (Werbach, 2007).

For greater security, the user must be engaged in maintaining *whitelists*, that is, a list of all contacts they wish to receive email from. Many Internet security systems employ a composite index of blacklists and whitelists as a means of preventing unwanted messages (called *greylists*). A whitelist is considered the most secure form of email filtering. Only if a whitelist filtered email address is spoofed or hijacked can a spam message get through. Security in mail services always comes at a price. The drawbacks are immediately apparent: for example, if I am using a whitelist and a person I have never met contacts me by email to buy one of my books, the request will be automatically rejected. While neither blacklists nor whitelists are “content-based,” they are a sophisticated means of network inclusion and exclusion not entirely removed from spamming’s original purpose. When the system goes wrong, and it has, everyone can be blacklisted, and this spells out the dis-integration of electronic mail. The extent of inclusion and exclusion among network services goes well beyond spam, ideologically situating all social networks.

Content and Virus Filtering

The 1994 launch of PROCMAIL put to market the first word recognition software identifying single words and word strings commonly found in spam emails. The effectiveness of the first basic content filters was about 80 percent (Zdziarski, 2005), helpful for sorting large batches of email. Once again, the effectiveness was not long lived. Spammers intentionally misspelled key words so that they were somewhat recognizable to the human eye but pass through the automated filter yet to be programmed to various misspellings. However, given that fees were not feasible and block lists presented problems regarding mutual systems management, filtering mail on

its way to the user's inbox offered the only unexplored avenue for development. Spam was in the midst of a sustained explosion, the number of spammers and amounts of spam increased phenomenally. A ten-fold increase was witnessed in the first six months of 1997 (Zdziarski, 2003). Several new spamware³⁶ applications helped spammers reach their booming target markets; inexpensive compact discs containing 200 million email addresses were already available. With (a) easy harvesting of email addresses; (b) spamware to get around primitive filters; (c) the use of open relays to disguise sender origins, and (d) a lack of government consensus on what was to be done, the effectiveness of anti-spam measures was insufficient to prevent the outbreak of an even greater problem from computer viruses.

The Happy 1999 worm was the first virus to spread by attaching itself to emails using Outlook Express, PC email software, as its host. After this, email was to become a primary conduit not only of unsolicited information but also computer infection from *malware*. The SoBig.F variant, precursor to the Storm worm, was followed a year later by MyDoom, a mass-mailer malware, which currently holds the record for the fastest spreading computer virus. Consequently, anti-spam and anti-virus software industries became entwined. The automation of mass marketing email systems required a concurrent automation of virus and mail filtering systems. For vendors and non-profits engaged in providing filtering software and services, it has been difficult to keep up. Spammers and viruses have been, until July of 2008,³⁷ constant companions, regularly

³⁶ The first spamware applications were released in 1996 and included Lightning Bolt, Ready-Aim-Fire, and E-Mail Blaster, followed the next year by Extractor Pro, Stealth and Goldrush, which "were designed to evade the primitive spam filters that were available at the time" (Zdziarski, 2005).

³⁷ Alexander Gostev (2008), Senior Virus Analyst of Kaspersky labs, an anti-virus monitoring agency and software vendor, reports that as of July, 2008, the company will no longer be using email

updating their malware codes and spamming tricks. The problem of tracking down spammers, greatly exacerbated by the introduction of “Fast-flux DNS” (rapid changing of Internet Protocol addresses), means that there is no longer a stable point to assess which IP is actually spamming and which may just have handled a period of heavy use. This has led to an all out assault on personal security, freedom and privacy from the *overnet*, via social engineering practices that use key tracking, phishing, Trojan worms, or other means of identity theft (Alan, 2007). For the common cyber citizen, these are the costs of participation in online culture. Corporate security comes at a costly price. Digital waste management services of business email maintenance reflect a sizable investment at a cost in 2007 of roughly \$2 USD per month per employee.³⁸

However, the ideological stakes are raised much higher. Screening email obviously violates privacy, and email is notoriously vulnerable to interception. There is much deliberation about taking legal responsibility and, ironically, a predominant concern is liability for non-intercepted, offensive, unsolicited messages. These strategies pose interesting questions about the discursive public space of the Internet: Who belongs among my discussants? Do I welcome unexpected correspondence? To what degree is my privacy more important than the enlargement of my social sphere? Who (or what) do I trust to screen my mail? To what degree do I accept the automation of my social interaction? What effect does automation have on my personal correspondences and habits, on trust, or literacy, or network democracy?

statistics to assess the virus threat landscape, because, given the many other means now available of distributing malware, “email is no longer the main attack vector” by which viruses travel. If true, this ends a decade of primary viral propagation through spam email.

³⁸ While these prices are subject to change, and depend on the size of the organization, current 2008 figures range from as low as .70 cents for over 1000 employs to as high as US\$ 5.64 for a small two to five person business (e.g. <http://www.pnw.com/spamprotection>).

I conclude this brief history of spam and conversations in the digital diner in 2003 for several reasons: Spam changed, spamming techniques and technologies changed, as did content filtering techniques. As Monty Python's spam sketch ends with the individual voices of the waitress and couple being drowned out by the SPAM™ chorus, so, too, is spam drowning out the personal. Over the period network history described, the network grew to global proportions and, at the same time, became increasingly privatized and commercially oriented (Sarikakis, 2004). Yet, the net retains value as a democratic public space, even if it has an unsavory side, a garbage pile, right in the middle of the diner. The commercialization of online, democratic, discursive space can tell us something about the alienable and inalienable rights to dialogical inclusion and exclusion, and social problems that arise from network abuse, particularly under conditions in which social engineering is automated using a predatory neoliberal ideology, with no responsibility for the management of informational systems or excesses of impersonal correspondence that the spam industry produces daily.

The essence of the healthy network is informational flow, circulation, ventilation, movement between, but also through—through an absence that is marked by the presence of technology in human affairs, a presence that has the capacity to situate itself in the field of perception, and thereby to affect literate habits and behaviors (Anderson, 1996). Overwhelming human correspondence, spam interpenetrates spheres of both personal and social contact with a newly automated presence, one that the public has not before witnessed so closely and intimately. The excessive production of what Baudrillard (1999; 1994, p. 14) describes as “the hyperreal” pushes personal values from the network, undermining the same values that made the Internet possible. For writers contemplating

post-personal, cultural cyberspace, the history of spam places in high relief the minor events that lead to the New Word Order.



Figure 4.2. Scavenger's Autopsy

CHAPTER FIVE

Madness Most Discrete: A Spammer's Choking Gall, a Filter's Preserving Sweet

Educating Spam: Letters to the Third Person Impersonal

In 2003, the labour of suppressing the deluge of unsolicited, automated, commercial messaging experienced a leap of consciousness: spam filter programmers began to treat language statistically. The premise underlying this work was that an Artificially Intelligent (AI) computer program, processing a machine-learning algorithm trained on personal correspondences, could be used to filter out undesirable email. This solution didn't address stopping spammers: it addressed the conditions of a personal information environment amidst the commercial waste polluting the technological infrastructure of virtual social networks. The role of the personal email correspondent reentered the organizational paradigm of information management. And it has been extremely successful. With escalating volumes of spam in cyberspace, less is getting to users than ever before in the short history of electronic mail.

Never to be outdone, the labour of spamming also made a leap of consciousness, and brought with it the cybernetic age of the botnet (Markatos & Keromytis, 2006). Botnets are AI self-scripting computer networks, pirating the processors of infected computers, distributing spamming tasks among hundreds, thousands, even millions of 'zombie' machines (Wilson, 2007). Giant spambots compose and send millions of randy love letters per hour to their ideal reader, the statistical spam filter. It is an epic, automated, long-distance love affair. Botnets compose the letter with discourse harvested online, and they too use language filters running stochastic algorithms to generate unique,

personable texts so that spam filters won't notice the ruse, the scam, fraud, or crass commercial cash grab that underlies the spammer's motives.

As the spam filters improve their statistical literacies, the texts of our prevaricating interlocutors become increasingly complex and linguistically interesting. And so a technical, legal, economic war on spam takes a surprising, even hopeful, poetic turn. In the midst of digging out the waste of rampant social engineering in the information age (Duff, 2005), we find our most intimate writing selves discarded there, and this opens up a vista on language, authorship, and "artificial creativity" never before so present, and yet at the same time so invisible to the users—conditioned, as we are, toward disposability. Spambots grow intelligent by learning to write like we do, but also not like we do: not so much composing as compositing lexical homologues that personify normative correspondents. Spam filters grow intelligent by learning to tell the difference between us and them. The filters and the bots have grown up together, as virtual neighbors, the Capulets and the Montagues of cyberspace. Their affairs determine the conditions that will situate the literacies (Barton, Hamilton & Ivanic, 2000; Kressler & Bergs, 2003) of the next generations of human correspondents. We learn *with* each other, humans and computer networks, acquiring language (Haraway, 1991). We humans need an open mind toward the artificial other; the way I see it, we can augment human education by also learning *from* each other.

Bringing together numerical and linguistic codes as a means to determine the differential properties of uniquely personal language use, and training computers to decipher coherences of personal values as expressed through social practices of literacy, spam filtering ushered in a new dawn of literature. This inspiration did not begin with

spam, but until statistical and stochastic processes met with spam and equally intelligent spambots, nothing of the scale of our current linguistic experiment had ever been dreamed, never mind coming to exist in routine email. Computers have been writing love letters since Turing's team in 1945 taught a machine how to think in a logical language (Link, 2007). Tag teaming on an artificial language-learning curve, the spam wars took a turn to language, and returned to poetry, found in spam's body-text-filling filter texts. What follows are the processes by which a literary treasure trove was made of detrimental discursive wastes.

Before the new millennium, spam prevention had focused on preventing spammers from accessing networks and using Internet Service Providers to send spam. Other proposed methods of digital stamps, signatures, keys, and computational challenge-response mechanisms were not greeted with public enthusiasm; personal email had become too important to daily life to want to impose penalties on the efficiency of the system because rogue spammers were abusing it. Monopolizing the system through digital taxation could undermine the Internet's democratic plurality as a global public commons. However, as spamming became more automated and commercial email advertising services appeared throughout social correspondence networks, the situation became increasingly dire for ordinary email users (Goodman, 2004). Spam was deterring user confidence and trust in e-commerce and privacy online. Entering into a conversation with the automated presences that interrogate contemporary public discourse was out of the question: spammers had an automated public address system that was bigger, faster, and more broadly cast than any prior to it, and were not going to be dissuaded from using it to capitalize on new hyper-mediated information environments (Stefik, 1999).

The 1990's produced a body of multidisciplinary research on text and content filtering; generally, the foci of the work were on data-mining, development of search engines, and data crunching of information into personal interest and aptitude profiles. AI machine learning techniques were needed to contend with complex informational environments and the increasing difficulty of recovering knowledge from them (Oard & Marchionini, 1996; Willinsky, 1999). By the end of the decade, automation of literate tasks had become a routine feature of life online. This placed technology as a participant in the construction of knowledge, culture, and civilized behaviour, translating between persons and the infosphere of techno-social language use (Capurro, 2006). Translation was not neutral: it was about *ranking* the significance, and therefore the value, of information in the digital environment. Automation of these processes relieved humans of a burden of dealing with all the information we produce, so that we could spend our time attending to the relevant information only. AI content filters made it possible to keep track of information and assimilate it almost as soon as it was created and made public. And production was at an all-time high.

A lot of the information is not useful, seeking to persuade reluctant consumers to gamble or buy unnecessary products, and the quintessence of this excess data trash is spam. When bulk email became a commercial marketing tool, the quality of public information environments went down, and life within seemed less sustainable (Spink, 2000; Steele, 2000). Right next to the digital cultural playground and the fenced off gardens of scientific, medical, military and professional research, the giant automated spam factory was belching out toxic waste, inviting the kids to come over and play in it. What made this waste toxic was not only its increasing volume, or its commercially

dubious spin, but that it was mechanized. It answered neither to, nor for, its communicative effluence.

This important distinction entered the discourse around spam with an excellent, frequently referenced article by Paul Graham (2002), “A Plan for Spam,” in which he not only focused the anti-spam campaign on the potential of Bayesian filtering³⁹ (after programming a naïve Bayes model⁴⁰ spam filter for himself, and testing it) but also helped to clarify the definition of spam email. In the appendix to his article Graham offers a few examples of why UCE is not a particularly useful term, stating that he’s been wanting a three speed bike, and if a stranger sent him an email offering to sell him one, he’d be happy to get it even though the message was *unsolicited* and *commercial* in nature; it would not, therefore, be spam. The UBE argument stands on even shakier ground, since many legitimate newsletters and list-serve announcements, if not all, fit the *bulk* category, but are not spam to subscribers. The problem posed by spam is automation of address harvesting and mailing, and therefore spam’s definition, according to Graham, ought to be Unsolicited Automated Email (UAE). Graham’s plan for spam was not to fight fire with fire, but rather automation with automation.

The first filters were written with complex PROCMail scripts (software that channels the mail stream between the server-level SMTP or POP mail programs and the

³⁹ This article became so well known that Graham is frequently credited with introducing Bayesian algorithms to spam filtering, which is not true, nor does he make any such claim. The Bayesian model was first suggested by Sahami, et al. (1998) and Pantel & Lin (1998) at the Association for the Advancement of Artificial Intelligence workshop on Learning for Text Categorization, and two years later by Androutsopoulos et al. (2000) at the 11th Annual Conference on Machine Learning workshop on Machine Learning in the New Information Age. Graham’s article popularized the notion, after which numerous people in the anti-spam industry began working with Bayesian filtering.

⁴⁰ Bayesian spam filters are called naïve because the algorithms do not prefigure the current state of information, but work from a principle of uncertainty, or what is known as partially observable Markov decision processes (Monahan, 1982).

user's email client software) and involved simple word recognition. The first word recognition filters were used in conjunction with blacklists of ISPs that were known to be pumping out spam, but they added a new dimension to the anti-spam cause: content recognition. PROCMAIL scripts were focused on the text contained in email headers, and had a fairly stable rate of success, with a spam recognition accuracy of approximately 80 percent (Zdziarski, 2006). If the recipient never wanted to see another email selling computer software, the word 'software', or names of individual software brands could be entered into the heuristic list of undesirable words, so that any message bearing those words would be rejected before reaching the user's mailbox.

Before long, however, spammers cottoned on and stopped making their email headers predictable, so that the list of undesirable words had to grow larger, and the filter accuracies would go down. In addition, the growing word list presented a more complex problem: Spam filters must come with heavily negative-leaning biases in order to avoid misclassifying legitimate mail (*ham*) as spam. A *false positive* error is far more egregious than letting a few spam messages sneak into a user's mailbox. A *false negative* (misrecognized spam) is not desirable, but a false positive (misrecognized "ham") can be disastrous if the artificially misclassified message is of particular personal significance. This ethical constraint on content filtering gives spammers a strategic advantage. If they use more common words, then those words will be regarded as 'spammy,' and spam filters will face the false positive dilemma because regular email between correspondents might also want to use those words. The spam will get through so as not to block legitimate mail in the process. A new anti-spam strategy was required, one that could screen content not only using individual words, but patterns within spam email, the whole

of the email, including its addressing, routing, headers, texts, images, links, embedded codes, and so on.

Content Filtering from Heuristics to Bayes Rule

Programming anti-spam software to recognize spam by its distinctive genre features gave rise to *heuristic filtering*. One of most successful heuristic filters was created in Apache's open source project called SpamAssassin (Gaudin, 2005, February 06). Heuristic filtering requires a rule set, finely nuanced, programmed into it by the software or referenced online. The rule sets for recognition of spam control for typical features that make spam easily identifiable to humans, as well as less obvious markers such as ISP country of origin and routing, font styles, html formatting, and so on. Although spam appears to humans as a normative genre, heuristic filters employ hundreds of rules, and, like the simple word recognition filters that preceded them, they require constant updating. A major problem for heuristic filter developers is that spammers may purchase, pirate or freely download a copy of the software; trial-and-error will let spammer's know which messages are likely to get through. Furthermore, as the SpamAssassin project is open source, the rules are posted online for software and spamware developers to see.⁴¹ Many quasi-legitimate email marketing companies run tests for a fee, and give workshops to potential mass mailers on how to avoid winding up in the 'bit-bucket' and having their ISPs blacklisted.

⁴¹ In defense of this system, the SpamAssassin team assert that rules remain effective for months at a time, and more importantly, the collaborative nature of open source projects means that more people with expertise are able to contribute and comment on the work, causing the rule sets to become far more effective through community cooperation than if a policy of secrecy were employed—thus reflecting the general pro-open source argument (see FAQ page <http://wiki.apache.org/spamassassin/PublicRules>).

The common email user cannot be of much help in fighting spam with heuristic filters because the rules are technically sophisticated and require expert programming based on in-depth knowledge of spam codes and messages. Heuristic rule developers become literary critics of the native-hypertext spam genre in order to articulate genre features accurately and predictably, and they can only do so by studying thousands of actual spam emails. This requires a significant corpus of email, not only to design and program rules, but to test the efficacy and accuracy of filters on actual email. Corpora of email need to represent the real conditions in email systems, but also personal values in terms of what is or is not garbage, and this is a problem facing the generic rule sets of heuristics. As a social networking system, email is rife with personal features (Kazienko & Musial, 2008). Heuristic filters exclusively focus on and define what is generically bad in the mail. Genres can be intentionally blurred, as in prose poetry, or poetic prose. Defining spam without also defining ham (a nearly impossible task) leaves rule developers one step behind spammers and with an enormously laborious job of writing ever more rules for them to break.

SpamAssassin is still one of the most effective spam filters today largely because it is no longer solely an heuristic filter, but rather compiles a wide range of anti-spam measures (real time block lists, Bayesian statistical classification, user-set parameters, and so on). By combining all these approaches, accuracy of filtering rises above 98 percent (Corbet, 2006); the drawback, however, is that it is slower than other filters, and requires increasing amounts of computer memory and technical know-how to operate.

For large systems with many email clients, it can be somewhat impractical.⁴² A trained Bayesian filter without heuristic rule sets can perform almost on par and at much greater speeds. The advantages of statistical over heuristic filters become apparent when considering not only their speed and accuracy in defining spam generically, but also the benefits of personalizing the filtering process (Race, 2005).

Machine learning algorithms, such as those used in *Bayesian spam filters* statistically classify mails according to individual correspondence patterns based on both incoming and outgoing messages. Lexical profiles of the users' correspondence habits draw from messages they send and receive. As Graham (2002, p. 4) explains, “the real advantage of the Bayesian approach, of course, is that you know what you’re measuring. Feature-recognizing filters like SpamAssassin assign a spam ‘score’ to email. The Bayesian approach assigns an actual probability.” The “score,” Graham asserts, is unclear and arbitrary—even the filter developers don’t really know what the score means—but a probability, as defined by Bayes rule, is unambiguous. And the benefits don’t end there. Graham continues:

because it is measuring probabilities, the Bayesian approach considers all the evidence in the email, good and bad. Words that occur disproportionately *rarely* in spam (like “though” or “tonight” or “apparently”) contribute as much to decreasing the probability as bad words like “unsubscribe” and “opt-in” do to increasing it. So an otherwise innocent email that happens to include the word “sex” is not going to get tagged as spam. (p. 4)

⁴² There are many online sources of spam filter comparison tests using various spam and ham corpora. For an excellent example featuring 14 popular software varieties run on the SpamAssassin corpus see Holden (2004), and for a comparison of leading Bayesian filters with discussion, see Corbet (2006).

To create its probabilistic ranking of spam, a naïve Bayesian filter breaks the email—headers, html, and message—into tokens (lexical units) and ranks these according to their frequency of occurrence with either the spam or ham corpus. For this reason, the larger the training corpus upon which the machine learns, the more accurate it becomes at identifying the probability that any given token is representative of either the good or bad corpus.

Selecting the corpus is also important; spammers constantly change tactics and an old corpus will insufficiently prepare the filter to respond to the current information environment. More importantly, each corpus must be representative of the person whose email is being filtered, which presents a number of problems for those testing statistical spam filters. First a human must go through the mail carefully to set the ‘gold standard’ for corpus classification that the filter must then try to match (Cormack & Lynam, 2005). Although Bayesian filters remove the necessity for heuristic knowledge engineering—having a human pour through the spam corpora to write rules that characterize predominant spam features—they require human-adjudicated corpora to provide a personalized information environment for machine-learning statistical filters to reach peak accuracy.

Naïve Bayes classifiers do not rely on—may even compensate for—human biases. Humans recognize visible words such as ‘Viagra’ as indicative of spam, but few would recognize that “#F0000”, the HTML code for the colour red, is five times more likely to occur in spam email than the word “penis,” and therefore is a more reliable token for spam identification (DigiTar, 2008). Probabilities are calculated for each user individually, given that no two mail-streams are exactly alike, and this personalizes email

filtering, so that not only the generic features of spam but also the individual features of each user's own email correspondences weigh-in on the algorithm's processes. In effect, this means that Bayesian approaches also perform the function of whitelists and blacklists, because sender and receiver addresses, as well as personal URLs and email signatures, are entered into the corpus along with the other tokens. The filter then recognizes a friend's email address as a ham token (as would a whitelist), and a spammer's address (if it appears more than once) as a spam token (as would a blacklist). This compensates for the all-or-nothing problem of lists; statistical filters take other features into account, and adapt intelligently with each new piece of mail received.

The Finishing School of Statistical Email Classifiers

As well as individual words, tokens used in naïve Bayesian filtering include many non-syntactic items such as punctuation, numbers, non-ascii characters and HTML code, and each token acquires a probability rating over time and frequency of occurrences. Of course, the filter must learn each token separately (Graham, 2002). Value parameters are programmable; filters can be set to either recognize or ignore specific features. With all spammy tokens, spammers use many variations, exchanging normal characters with capital letters, repeated items, punctuation marks, and so on, and the database of tokens grows quickly. For example 'Buy Now!' and 'BUY NOW!!!' are the same expression with different emphases to a human reader,⁴³ whereas to a statistical filter they comprise four unique tokens with distinct probabilities. In addition, many tokens are likely to appear only once and are not very reliable indicators of either spam or ham.

⁴³ The all-caps version of 'BUY NOW!!!', is called "shouting" in network protocols for email writing, and is frowned upon as bad netiquette; see *RFC 1855 — Netiquette Guidelines*, (NWG, 1995, p. 3). Emails that are all shouting have a high probability of scam spam (Airoldi, 2004).

Graham (2002) proposes that Bayesian spam filters retain only the top 15 most “interesting” tokens (where interesting is farthest from a neutral [0.5] statistical probability, mid-point between spam and non-spam) and use these tokens only, in order to speed up processing and reduce the overall memory load on operating system. He found that this method also improved accuracy by reducing some of the statistical noise from random tokenization. Nonetheless, his own token cache grew eight times larger over the course of 4000 emails in a single year (Graham, 2003). Therefore, subsequent Bayesian filter developments automated routine dumping of older, excess tokens in order to preserve speed and accuracy and provide room for adaptation of the corpus to current conditions. Over the past four years, Bayesian filters have taken a giant step forward for the anti-spam campaign, and are still the most widely employed email filters.

Naïve Bayes Vs. Markov in Chains

Statistical probabilities share some features in common with pattern recognition heuristics, in so far as they both rely on a certain degree of predictability. While both heuristic engines and Bayesian algorithms can predictably identify the features of the spam genre based on topical word use and routing information, both methods rely on a normative state of language use. The problems presented by capitalization and item repetition do not stray far from the fold of normal language use. Even occasional misspellings, each of which becomes an independent token distinct from the correct word, are not abnormal in the course of any person’s mail stream. But the more of these anomalies that present themselves, the greater the statistical noise that results, and the more the processing becomes fuzzy and unpredictable. As the tokens take on more and

more irregular features, they become more and more improbable, at least, that is, for artificial intelligences to decipher.

For a while, Bayesian filtering put a formidable obstacle in the way of the joyride spammers were taking on the public's Internet email accounts. To get around the well-constructed blockade of statistical filtering, spammers became more inventive. And it is at this point, when trying to outwit human-trained, artificially intelligent statistical filters that spam became interesting: in 2004, spam started to develop its own New Word Order. Several new types of spam attacks appeared in cyberspace, each a cause for technical frustration and poetic inspiration: spam email became more cryptic and at the same time spambots started to recycle public discourse, in other words, spam began to include filter texts that *speak our language*, but in mangled, “munged,” garbled, and cut-up forms. Not satisfied with confusing statistical filters with incorrect spellings and grammar, spammers set out to turn the filters against those who hoped to benefit from them.

The Achilles heel of filters running naïve Bayesian algorithms is that they establish only a shallow level of context. Although they learn, they are not particularly intelligent, and although much more sophisticated than primitive word recognition software, they were designed as content filters, not *concept filters*. The difference, explains Bill Yeraun (2004), author of CRM114—the first spam filter to combine statistical and stochastic processes of text analysis based on Markov chains—is that spam content can be obfuscated while underlying concepts are still communicated. Although filters have been able to achieve over 99.85 percent accuracy, they have reached a ceiling

because spam mutates more quickly than filters can adapt. Yerazunis' CRM114⁴⁴ is more than a spam filter, it is a Turing complete language, and able to perform a variety of machine learning functions; but it is especially good with discriminating mails into their appropriate classes because it extends the principle of tokenization beyond single words into expressions. As Graham (2002; 2003) predicted, the time would come when looking at word strings of two or three tokens would be necessary—a procedure, he points out, which is “a reverse Markov chain operation.”

Collaborative filters employing statistical and stochastic processes have shaped online correspondence environments once again, pushing language classification past heuristic tokenization (where a human determines what is, and is not, an “interesting token”—this being the last remaining heuristic feature of Bayesian statistical filtering; see Zdziarski, 2005, Ch. 6) and this has helped to combat a number of tricks that spammers have used since the widespread employment of statistical filters. These tricks, which are, unintentionally, inherently *poetic* techniques, include the obfuscation of text, and the introduction of random encrypted sentences into messages to confabulate filters. One of the interesting strategies spammers use is known variously as a *good word attack*, *literary attack* or *word salad*. Words that are probable of ham are included with messages sent to millions of people—or rather, filters—around the world. Literary attacks using reprocessed language on statistical filters to mangle their token probabilities have been very effective.

⁴⁴ Like SpamAssassin, CRM114 (which stands for Controllable Regex Mutilator) is open source and available at www.sourceforge.net

A study by Daniel Lowd and Christopher Meek showed “good word attacks” (adding 150 good words or fewer to non-feedback filters, 30 words or fewer to feedback filters) resulted in the attackers getting fully “50% of currently blocked spam past either filter” (Lowd & Meek, 2005, p. 1). Because machines learn quickly, especially those using collaborating algorithms and multistage processing of texts, these spam texts are forced to change quickly. With robotic text harvesting from web sources that are typical of routine literate correspondence (blogs, social networking sites, emails, etc.), the spammers are up to the challenge. Their botnets cut up and reassemble public discourse as fast as we put it online; producing automated textual compositions from the detritus of cyberspace. Email users receive only those messages of the overall spam text that conform to our own lexical and literate correspondence practices. And so the language of spam filter texts tells us something of contemporary online public discourse and the specific linguistic traits that mark us as individuals.

When stochastic processes entered the spam scene, content filters (and generators) were able to work with the creative force of ambivalence and uncertainty in language (see Bakhtin, 1981, 1984). When machine learning combines naïve Bayesian algorithms (see Monahan, 1982)⁴⁵ and Markov stochastic procedures in multistage language classification, automation takes on a conceptual focus: “now,” “Now,” “NOW!!!,” all become much less spammy, while “buy now,” in any of its manifestations—even when cryptographically presented as “BVY NOWV,” is much more obviously classified as spam.

⁴⁵ Monahan (1982, p. 1) offers this useful analogy of the difference between *observable* (MDP) and *partially observable* Markov decision processes (POMDP): “Howard described movement in an MPD as a frog in a pond jumping from lily pad to lily pad...we can view the setting of a POMDP as a fog shrouded lily pond. The frog is no longer certain about which pad it is currently on”.

Moreover, long passages of texts generated to foil Bayesian probabilities, perhaps even to turn filters against their users, now become a part of new Markovian matrix reworking and reconfiguring language potentials in the sociolinguistic field; and thus, automating a process that in the human dimension falls to poetry.

Although Andrey Andreyevich Markov (1856-1822) imagined his chain theory of indeterminate events and the differential properties of systems as a means of textual, in fact poetic, exploration (Markov, 1913/2006a; 1913/2006b), the application of stochastic processes to language lagged behind empirical uses in the natural sciences wherein Markov's work has been most rigorously applied (Stewart, 2007). Markov extended the laws of the calculus of probability, providing number theory and statistical analysis with new mathematical tools well ahead of their time. Western European mathematicians were slow to catch on; but when they did, some years after his findings were initially published, his discoveries revolutionized the theory of probability and classical stochastics, providing for key advances in science and technology (Link, 2006b). The theory of chained events he put forth involves the concept of state, in so far as the persistence of information continues from one visible (or conceptual) event to the next, while the subsequent information remains independent of the causes and probabilities that gave rise to those events preceding them (Seneta, 1996). Markov's theory has proven useful for understanding mutations in a wide variety of codes.

For the hackers and programmers who have spent countless hours of dedicated time and energy, giving their innovations and expertise, to accept that their labor has been in aid of making spam interesting might be hard to accept—and even worse that they have elevated the spammer's robot to a level of literary reputé. Without the efforts of

these people on the behalf of all email users, spam would have drowned us out entirely, four or five years ago, and we owe them a debt of gratitude. Much easier to accept would be that the machines they have taught to learn, classify and use human language, and the automated intelligences spammers have employed to outwit those machines, have resulted in a new artificial creativity worthy of human attention, one that over time will find itself embedded within our cultural habits, language practices and aesthetic proclivities as we navigate the abundant, indeed overwhelming, new informational environments online. In the play between human and automated filtering online, a new collaborative mode of learning and engagement with knowledge, identity, authorship, and values is being forged.

The Digital Denouement: Spam Takes A Poetic Turn

The current state of the information environment over which we digitally preside has grown more interesting from a literary and educational perspective, and more indeterminate and unpredictable from a technological standpoint. We are seeing the beginning of profound changes to patterns of literacy practices (Cope & Kalantzis, 2000; Lemke, 1998), but a few qualifications are necessary. In the new millennium, digital technologies have diversified the modes and means of public correspondence and social networking well beyond 1980's Bulletin Board Services and 1990's commercial email. We currently find spam in a variety of electronic domains: newsgroup spam, search engine spam (spamdexing), online gaming spam, mobile phone and text-message spam, instant messaging spam (spim), WIKI spam, blog spam (blam), chat spam, website spam, Facebook, Youtube, MySpace and other venues of social network spam, pop-up spam, online guestbook spam, and so on. With each new means of social correspondence there

arrives a new breed of spammer relentlessly pursuing elusive readers in the hope of transforming them into customers and some cold, hard, cash. Everywhere you turn online a cloak and dagger spammer lurks. Often, legitimate businesses employ these rogues to do arms-length, under-the-desktop marketing;⁴⁶ sometimes the offers are unjust scams, with no product, windfall of cash, or service ever having existed behind the spammer's front; even if it did (such as cut-rate pharmaceuticals), it is almost certainly a placebo.

The U.S. Federal Trade Commission reports that 66 percent of spam advertisements it examined made fraudulent product claims (FTC, 2003, April 30).⁴⁷ The other one-third of messages classifiable as commercial spam are much worse—phishing for personal information and downloading viruses, worms, and keytracking software into unsuspecting users' computers. Defrauding others is the spammer's way of life, claims McWilliams (2004), in his journalistic account of the lowlife spam king David Hawke and his pals. Fraud dominates legal cases against spammers because they refuse to respect the intellectual attention and property of others, whether individuals, organizations, businesses, or governments (Alongi, 2004; Sorkin, 2001). Questionable ethics, rationales, and motivations exist on all sides of the equation however: a culpable, if sometimes unscrupulously greedy and deeply insecure public are an important part of the spam equation that legislators, spam vigilantes and programmers need to consider.

The public's role raises questions regarding spam that burrow to the core of social and cultural values underlying the democratic, dialogical ethos in the digital information

⁴⁶ Elizabeth Alongi (2004, p. 263-264) writes, "today, spam is considered a mainstream marketing option, into which companies poured \$1.3 billion in 2002".

⁴⁷ Ironically, the most reliable spam is advertising Internet pornography, in so far as it does link to porn sites, regardless of how offensive, socially detrimental, insalubrious, virus-laden and dangerous such sites can be.

age (Harris, 2003), questions that are not restricted to commercial spam email (Rooksby, 2007), and that inevitably will need to be addressed through public education (Takenouchi, 2006). Spam benefits from a century of conversion by mass media of the political crowd into docile, domesticated consumers (Curtis, 2002). Spammers and the aggrieved public are not the entire ethical equation of spam, however. A thriving anti-spam industry sells software and services to people worldwide for billions of dollars annually; it stands much to gain from the perpetuation of, and media hype surrounding, spam email. The end of spam may be a goal of email users and veteran hackers but it is unlikely to please the vested interests of McAfee, Norton, or the myriad offshoot businesses who profit from spam prevention—anti-spam services, research firms, lawyers, net journalists, and IT professionals defending us against unwanted emailing.

Of the many anti-spam technologies on offer to network industries, server administrators and email users, several of which I have omitted from this truncated narrative account,⁴⁸ spam filters are the most common *and* the most sophisticated. Machine learning filters not only demonstrate the mutual evolution of natural and artificial languages positioned within the context of daily correspondence, but also reveal the ground zero impact of social engineering on the information environment (Allen,

⁴⁸ These omissions (all server-level rather than client-level spam prevention strategies) include techniques such as *throttling*, which constrains the speed at which electronic mails can flow, a variation of *tar pits* that force the sender's computer to accept a resource-costly delay in communications during the transmission (not a big delay for one or two emails but huge if, in the case of randomized dictionary attacks, thousands or millions are being sent). Another server-level anti-spam strategy is *Challenge and Response*, which forces the sender to confirm the message is legitimate before it can be delivered to its recipient. And more recently, *SMTP authentication* keys are being used to restrict forgery of headers and routing information and to make email traceable, thereby shutting down illegal mail relays. *Collaborative filtering* networks, such as Vipul's Razor, and group *inoculation* strategies, modeled on multi-stage collaborative filtering processes, as suggested by Yerazunis (2004) are also currently under development. These methods are given detailed evaluation in Zdziarski (2005), but have been left out of this account in order to focus on the mutual evolution of social correspondence, language classification and spam.

2007): people now require robotic means of blocking persistent and often very annoying automated pleas for attention. Underlying these automated language practices is a changing role of authenticity within new economies of attention, a change within the dialogical practices of social production, consumption, and waste of meaning. Potentially negative or hostile developments in the spam wars have illuminated striking new possibilities for the reversal of the *meaning-to-waste* paradigm, to a much neglected *waste-to-meaning* information life cycle, challenging us to reassess the politics of disposability (Giroux, 2007, 2008) which has until now governed perspectives on social discourse and cultural practices in a digital age dominated by informational excess and automated data trash.

The digital denouement in the story of spam's postal climax, arcing between a monumental dilemma caused by greed, abusive marketing practices, and rampant impropriety over the engineered dialogical space of our shared computer networks, results in a linguistic restructuring more poetic than had been intended (Chaum, 1981). The automation of discourse engaged robotic writers and readers in a game of wits, one that reaches deep into the field of literary criticism and language education, at the crossroad with new technologies and the codified interactions of the public sphere. More specifically, it involves the new best of breed collaborative filtering technologies, based on statistical analysis and Hidden Markov Model (HMM) processing, capable of classifying and determining the conceptual value of incoming mails. Markov Chain theory has proven especially viable for dealing with issues of automated language classification, partly because there is a lot about language that is indeterminate and fuzzy, and the ambiguity increases considerably when spammers intentionally obfuscate their

texts to circumvent undeniably effective Bayesian filters. HMM processing has been successfully employed in automatic speech recognition (Rabiner, 1989), natural language processing, and decoding the human genome (DNA sequencing) as well. Markov's models are robust for today's complex information environments: they are context sensitive, conceptually astute, and can render even garbled messages meaningful, "converting obfuscated [spam] text back into the original text intended by the sender," as Lee and Ng (2005, p. 2) have demonstrated.

As has been stated earlier, Markov's work on chain theory—the sequence of information one can know without knowing beforehand where one is in the sequence—goes well beyond applications in physics and biology. As Link (2006a, p. 14) states, Markov Chain processes are used in:

the measurement of the amount of information contained in a text in communication theory, pattern-recognition, and more specifically speech- and optical-character-recognition... Among the more popular applications are the page-ranking algorithm of the Internet search engine Google and the T9 text-input system for mobile phones.

Markov's biographers state that he "developed his theory of Markov chains as a purely mathematical work" (JOC/EFR, August 2006). However, Link (2006a) and others have suggested that Markov was not only a great mathematician; he also had a deep admiration of poetry and an abiding fascination in the literal code sequences definitive of poetic expression. In fact, Link (p. 14) argues that Markov intentionally chose not to apply his number theory for six years after its publication in 1907, while researching an ideal data set for empirical trials. In 1913 he settled on the first 20,000 letters of Aleksandr Pushkin's famous epic poem, *Eugene Onegin*. Shortly thereafter, he took an even larger

corpus of the first 100,000 letters of *Childhood Years of Bagrov's Grandson* by Pushkin's contemporary, the poet Sergey Aksakoff: to both works he applied chains of two states looking at the vowels and consonants in order to understand the conceptual patterns in these literary texts (Markov, 1913/2006a; 1913/2006b). A defender of literature, he staked his life and reputation to defend the left wing short story writer Maxim Gorky when Tsar Nicolas II turned against his appointment to the Russian Academy of Sciences. Markov's work was not accidentally applicable to cultural productions of text and image, but rather he set out to develop a mathematical model for textual processes. Of these biographers, David Link (2006a) stands out as most clearly articulating the connection between Markov's theories and poetic processes. He points out that Markov's work was first taken up by literary theorists and popularized in the West by the brilliant linguist and literary theoretician, Roman Jakobson, who published studies extending Markovian stochastic calculus to many other texts, both literary and in the realm of every day speech and correspondence (see, for example, Cherry, Halle, Jakobson, 1953).

In Link's biographical portrait, Markov achieved something greater than he is accredited with in his advances to differential calculus: "For the first time in mathematics the use of signs received treatment as being differential." Moreover, Markov's method "determines the degree to which text represents orality" (Link, 2006b, p. 16). Perhaps this is why his work has proven so invaluable to the development of the ARPANET in calculating channel bandwidth capacities and computer performance evaluation (Stewart, 2007), to the development of Internet search engines and Google page rankings, and finally, profoundly, as a means to classify spam and ham email, a method so robust it can even distinguish one spammer from another according to their language use—from the

way they encode their ceaseless demands for our attention. Email returned to correspondence an orality that epistolary print literacies lacked (Baron, 2000, 2003). This application of Markovian processes to particular speech patterns embedded in email texts is not accidental: “Markov was interested in [the] problem of disputed author resolution” as Khmelev (2000) claims in a study he carried out using the Markov Model to successfully differentiate 386 text samples by 82 Russian fiction writers.

The importance of Markov’s work to procedural poetics, which I will take up in more detail under the topic of poetic inquiry as a research method, ought not to be surprising: Markov’s theory of interdependence of codes of meaning, the chaining events of signification, penetrates to the dialogic core of the new online *demos*, with its chattels of chatter and chaotic informational flux (Paulson, 1988). Markov also leaves his impression upon the networked world that arose 50 years after his death through applications that save us the time and energy of searching the entire infosphere for singular bits of useful information. His work is a bridge that brings together the worlds of expression and enumeration, spam and poetry, artificial and human creativity, in a way few would have expected, but with profound social and cultural significance. He helps us to understand the depth of coherence we have in a world mediated through information processing technologies, at the juncture where poetry, AI language filters and text generators have suddenly, some might say unpredictably and indeterminately, met and joined literary forces. With our post-person writing selves rescued from the digital wastes of cyberspace, our conversation with the botnet, our cyber-net Other, begins.

CHAPTER SIX

On a Method of Gathering and Describing Email Spam

“Where is the knowledge we have lost in information?”

T.S. Eliot, *The Rock*

In this chapter I present a personal examination of method and the preliminary statistical results from exploratory research I conducted on cultural conditions in contemporary online information environments. The aspect of this research presented herein focuses exclusively on spam email, and the development of a corpus of spam data on which to base my inquiries. Moreover, my interest diverges from the typical studies involving spam: I wish to understand the broad implications for social discourse and, ultimately, literary production, theory, and education, when high volumes of unsolicited commercial and bulk information overwhelm channels of personal literate communications. This can be seen as having a direct impact on the information age and the economies of attention that have arisen as a result (Davenport & Beck, 2001; Goldhaber, 1997; Lanham, 2006). This research was undertaken in light of several areas of significance, but is rooted in a need to understand how, from a perspective of education, we can educate students to critically embrace sustainable futures that are in tune with contemporary digital culture.

Starting out on this research agenda was intimidating. Technical and legal research on spam has developed into a full time discipline, but I am not an expert in either field. Yet with all the research on spam, almost none has been conducted within a sociocultural framework. I would have to take some bold methodological steps. Firstly, to

make the work relevant to people who don't want to know about spam (that is, everyone except lawyers, programmers, and anti-spam industry professionals). Most people would rather just delete it and be done with it. And this, I began to realize over the course of my research, is the central problem posed by spam: the ideological mindset that embraces spam's disposability is also of primary concern to the critical scholar. The more we learn to treat texts in our daily communication environments as disposable, the more the ideology and politics of disposability enters our personal worlds, our correspondence habits and behaviors, and starts to infiltrate literate value systems. This is a terrifying condition of unchecked consumerist society, with dire personal consequences; people, entire populations, can end up becoming disposable human waste (Bauman, 2004; Giroux, 2006, Strasser, 1999). Disposable persons begin to disappear from schools, into prisons, into wars, into ghettos, into homelessness, sickness, and poverty. I would need a method to address both what spam means from a public and a personal point of view.

During the early collection phase of this research method I kept a research web log to give public record of my cybernetic journey tracking spam back to its source, and as a venue to seek public input on the nature of my research. I also used this blog to advertise spam trap addresses (human visitors were warned that the addresses had been posted solely for the spammers' robotic web crawlers). Spam tracking allowed me to gain deeper insight into the delivery system and the geographical and textual sources of the corpus I was collecting. Because the process of tracking spam was arduous and mostly resulted in dead links, I began tracking only messages with filter text and that would further the secondary recycling stage of my research.

As an experimental practice of web sphere analysis (Schneider & Foot, 2004), this virtual method innovates across personal and public space as an “unobtrusive research procedure,” generally “underrepresented or just plain missing” (Hine, 2005, p. 202). Falling outside of normative research ethics (Kittross & Gordon, 2003), data is *unsolicited*, and there is no need to protect the identity of respondents because the email comes with names already disguised by aliases, false addresses, and is so deeply engaged in subterfuge that any attempt to contact the *real* identity of the sender is futile; instead, the goal is to witness the “political effects of social practices and modes of representation” (Thralls & Blyler, 2002, p. 185). Spam mail is literally unanswerable, and the senders cannot therefore be respondents (Gurak & Silker, 2002). Email systems are particularly vulnerable to anonymity, secrecy and deception, with no one to verify the ontological basis of the sender, no post office employee, no fixed addresses; it is increasing common to use “disposable email addresses” (Seigneur & Jensen, 2003). Thus in tracking spam back to its source, I reiterate that only unsolicited mail that offers no possibility of personal connection or contact has been considered.

Spam is the product of commercialization of the mail and the Internet. Although not all spam is apparently commercial in nature, the majority of spam tries to provoke some kind of commercial transaction. Seldom, if ever, does spam make an honest attempt to communicate something of value to the recipient: and certainly, answering spam out of curiosity is unwise. Just how unwise can be noted in the recent internationally based experiment sponsored by the McAfee Corporation (McAfee, 2008), an anti-spam, anti-virus company that provided researchers in ten countries with laptop computers and requested that they respond to the spam messages they received. The researchers’ dummy

email accounts were sold on mail lists to other spammers (Gage, 2008). One U.S.-based researcher received over 600 spam emails in a single day. By and large, spam messages are commercial ads and fraudulent con games, a hornet's nest of sting operations and swindles set loose upon the public sphere, eventually finding their way into the personal places where we dialogue with friends, colleagues, associates, peers, and the companies we chose to do business with. This kind of spam floods our correspondence systems with daily unanswerable mail.

My definition of spam email is deliberately narrow: spam is not only *unsolicited*; it is also mail that has *no possibility of personal connection or contact* whatsoever, exclusive of general notices about which the recipient doesn't have time or interest to attend to. The methodological objective has been to collect and analyse a data source that is consistently defined as excess and treated as systemic waste—a *literal* representation of *disposability* in consumer society—in order to inquire more deeply into the nature of textual, therefore ideological, pollution. From the stance of a cultural ecologist who is studying cyberspace, I have tried to specify the nature of an informational threat, and to interpret it using both social scientific and poetic discourse analysis. Therefore, two methodological approaches were used, the former leading into the latter, and this paper addresses the first of those two methods, the social scientific research procedure used to collect a spam email corpus of $n = 6800$ unsolicited messages received between June 27, 2007 and April 10, 2008 (287 days). First I will describe my method of collection and some of the basic characteristics of the corpus.

Honey Pots and Spam Traps

This study began with the creation of 32 dummy email accounts. The sole purpose of these electronic mail addresses was to act as “spam traps,”⁴⁹ otherwise referred to as honey pots. This initial collection phase of research was modeled on a similar six-month study undertaken by the Center for Democracy and Technology (CDT, 2003). In the CDT study, spam addresses were tagged by selectively advertising the email address, so that the proliferation of the account on active spam lists could be monitored over time. Addresses were posted on websites and public bulletin boards with headers, in human, machine readable, and html format. In experimental instances, some addresses were removed after two weeks. In a similar fashion, I posted the addresses I created on web pages (created solely for that purpose) on blogs, on list serves, and some were merely used to send mail to other spam traps to leave a trace of the address in the mail system. It was a great deal of work monitoring 32 email accounts, and keeping track of where the addresses were posted—and, my results were disappointing to say the least.

Even with spam filters turned off, over a three-month period I had accumulated only 18 spam messages. All the while my personal email address, that I do not publish openly, continued to bulk up with Viagra and watch ads. Because my interest lies in the personal significance of spam, I began to focus solely on my own email address. The account in question has been in my name through two corporate mergers, and is hosted by a major telecommunications company. Although the address is filtered, I receive a high volume of spam. This allowed me to begin to examine closely my personal

⁴⁹ See <http://en.wikipedia.org/wiki/Spamtrap>

experience of unsolicited mail. Figure 6.1 demonstrates the ratio of spam to ham (desirable mail) I received over the course of a week during the study. This accurately reflects the average⁵⁰ of 40.82 percent junk mail of all mail (5762) I received at this address during the course of the study ($2352/3410 = 1/1.45$ spam to ham).

Table 6.1. *Spam to Ham Tally of Email Received November 20-27, 2007*

<i>Day</i>	<i>Spam</i>	<i>Ham</i>	<i>Total</i>
1	11	15	26
2	5	20	25
3	11	15	26
4	13	14	27
5	6	20	26
6	7	20	27
7	11	17	28

Even though I was focusing on my personal email, I felt that I would be lacking some vital information because no comparisons could be made, and yet some comparisons seemed necessary. In particular, I was interested to discover if there were any differences between my email experiences and that of others. Gender comparison seemed of particular significance, owing to the generically phallocentric content of the spam I receive. After discussions about spam with several colleagues, all of whom concurred as to the manly essence of their spam, I turned to my partner, whose account has also been in use for several years. She agreed to turn off her spam filter and collect a

⁵⁰ The figures given from my personal email account do not include seven days (April 01 — April 07, 2008, when I was the unfortunate recipient of a mail bombing. The figures for this week are given separately.

complementary corpus of 1000 spam messages for the purpose of this study. The collection period extended from December 07, 2007 to February 18, 2007, on average 14.7 spam messages per day, which is slightly higher than my email. We share neither email hosts nor Internet Service Providers.

Being Mail-Bombed

Beginning at midnight, April 01, 2008, my personal email was subjected to a mail bombing, the result of an old domain name that was coming to the end of its ownership date and had been taken over by spammers. The site, www.pointlesshysteria.com, had been created seven years earlier when I ran an art gallery and performance venue in the downtown district of the large urban center in which I live. It had since ceased operation, although the site remained active. It is hard not to notice the irony. Data erupted out from a place in my past, from nowhere. When the site was originally built, I was the only one with an email address, and so *anything@pointlesshysteria* got redirected to me.

At first I thought it was an April Fool's Day joke. It wasn't; I was bombarded by rejected mail, mailer daemons, and notifications of individuals away from the office, coming from 14 countries. In all, 3442 bounced messages landed in my inbox after one week; the server bounced many more; twice my mail service filled up and tanked. I had to leave my computer on, email open, just filling up with unwanted email and removing spam from the server to prevent all my mail from being rejected. It caused personal havoc. I missed many messages and meetings in following weeks. I didn't get the updates and reminders. The next day, April 08, the bombing stopped and I stopped collecting spam, over 6,800 spam messages later. Three subsets, $\{o, k, d\}$, containing 1000

messages each, were created, where o represents the entire set collected from my partner's address, and k and d represent random selections from both larger collections of private email and the rejected mail from the spam attack. This made possible some cross-referencing of data in the corpus.

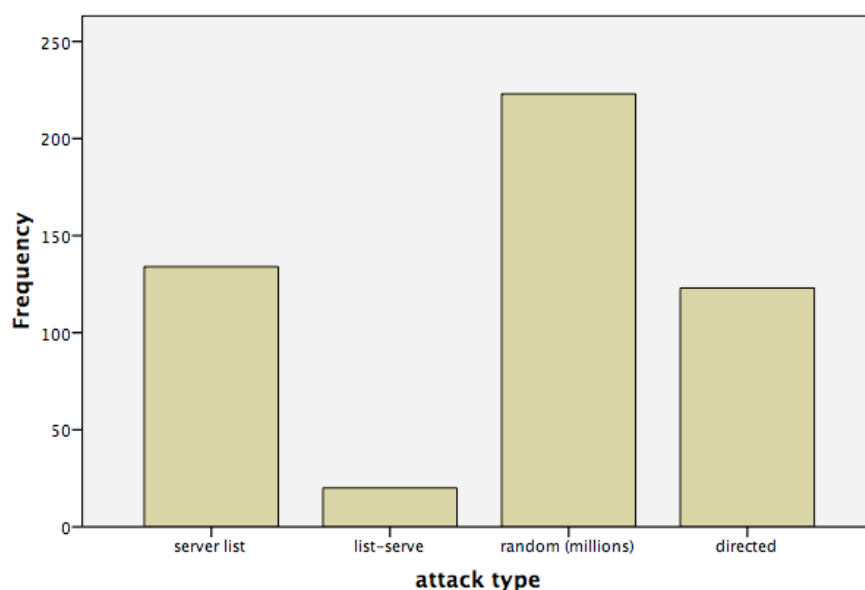
Spam: Getting To Know You

In order to gain deeper insight into the corpus and to conduct comparisons of various features across the subsets, I used SPSS 16.0 statistical processing software. I developed a data dictionary to code the individual messages (see Appendix B) according to features of particular interest in the spam emails. After going over the corpus in detail, a total of 18 variables of interest were identified, and entry of the corpus into the database got underway. Alongside name, address, date/time, subject line, size, recipient address, and whether the server had flagged the message as spam, there were multiple sub-classifications of attack type, ad type, image type, link destinations, quotations, metaplasms, euphemisms, classes of phishing or scam spam, and most importantly, a word count of any "filter text" used to foil spam filters. A closer look at spam shows it to have many distinctive code features.

A brief explanation of some features: attack type refers to strategic classes of bulk mailing and concerns the manner in which spam emails are addressed. Some addresses are harvested online from web logs, web pages, and posting in news groups, and so on, by robotic harvesters called web crawlers that collect and create lists of addresses. Sale of millions of addresses bundled for mass mail outs has been a standard spam enterprise since the late 1990s. These types of spam attacks are recognizable by the lack of common

elements among the recipient addresses listed in the “cc” (carbon copy) headers. Another type of attack uses compromised email client software that give access to *list serves* (listservs) some containing hundreds of group members. Many attacks are completely automated, such as the *dictionary attack* type. The CDT (2003), describe dictionary attacks as “methods that don't rely on the collection of e-mail addresses at all. In "brute force" attacks and "dictionary" attacks, spam programs send spam to every possible combination of letters at a domain, or to common names and words.” Of this type, some robotic addressing will specify a particular domain name to send a dictionary style attack to. In more severe cases this type of server list deluge will result in a Distributed Denial of Service attack capable of shutting down a server. And finally, some spam is directed solely to the recipient. *Figure 6.1 Bar graph of attack types* shows the distribution of these features from $n = 500$ samples in the k data subset with dead links suppressed.

Figure 6.1. Bar Graph of Attack Types Using $n = 500$ Samples from k Subset



Some spam includes images, and some of the images are created with skewed text and visual noise to evade optical character recognition included in some anti-spam software. Correlating image types with ad types shows that only sexual enhancement drugs and pornographic spam contain images that are skewed or have noise. Apparently, OCR filtering only hunts for key words in these domains. Speculation regarding the drain on memory systems owing to image incorporation in spam messages has caused some panic among corporate entities (Gantz, 2008, March); Barracuda Networks (2007, July, p. 2) claims, “due to the increased use of file attachments in email messages, the average email size can range between 22KB and 350KB.” However, in a random sample of 1000 emails from the *o* and *k* datasets, only 7.5 percent had images, less than 2 percent with visual noise and skew.

Some spam contains links—to *opt-out*, to *commercial* sites, to *fraudulent* sites “phishing” for personal information or containing viral downloads, and some links lead to a *dead* end, most likely because the spammer has moved on and has discarded the temporary domain name. As these links had been stripped from the subset *d*, these data were not included in *Table 6.2*, which shows the frequency and percentages of different link types. Each contained link was opened and the site examined to classify the destination. This did not include opt-out or opt-in links, in order to avoid (once the data collection period was over) getting more unnecessary spam, given that responding to opt-out links might announce to a spammer that the address is active, and result in the sale of personal email addresses to other spammers (FTC, 2003, April 30). The majority of live links (30.9 percent) led to an existing commercial site, although just over half of all links were dead (tested within one year of collection).

Table 6.2. Links Types from o and k Spam Data Subsets

<i>Link Type</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
None	198	9.9	9.9	9.9
Opt-out	10	.5	.5	10.4
Commercial	618	30.9	30.9	41.3
Fraudulent	168	8.4	8.4	49.7
Dead	1006	50.3	50.3	100.0
Total	2000	100.0	100.0	

The text of spam messages contains intriguing literary features, the common forms of which are *quotations*, *metaplasms*, and *euphemism*. Quotations are frequently drawn from websites featuring famous quotations (many of these exist on the web), along with other common sources such as quotes from news services. Famous quotations come in two varieties, literary and celebrity quotations that often include the author. Other types include folk wisdom and wise sayings, which are usually compiled anonymously. Quotations were researched using the Google search engine, and often lead to several websites listing the same quotation, not always attributed to the same source. Most spam using famous quotes append this to the commercial message as the only filter foiling text, and were separated from the category of filter text. Public sites will often send subscribers the quote of the day, and therefore, this may be an effective means of sidestepping filters: roughly 8 percent of spam messages contain quotations.

Metaplasms, a term originating from Greek language, means the changing of spellings of words through deletion, substitution or adding graphemes. Donna Haraway (2003, p. 20) offers this definition:

Metaplasms means a change in a word, for example by adding, omitting, inverting, or transposing its letters, syllables, or sounds. The term is from the Greek *metaplasmos*, meaning remodeling or remolding. Metaplasms is a generic term for almost any kind of alteration in a word, intentional or unintentional.

Metaplasms is used to disguise the “spaminess” of specific words (Lucke, 1997), mostly those related to pharmaceuticals, and therefore, it occurs in highest concentrations in pharma-spam ads and pornographic ad content, although Markov processes of cutting-up filter texts accidentally produce these features as well. In the corpus, 14.1 percent use metaplasms in the ad content, with an additional 1.3 percent employing metaplasms throughout the visible text.

Human readers have a high tolerance for misspelling of common words. With adequate language competence, human readers identify the spammy words, whereas spam filters do not. The Cockeyed website hosts an interactive exploration of metaplasms as it relates to spam email, demonstrating the sextillion (1,300,925,111,156,286,160,896) ways to spell Viagra so as to be recognizable to a literate human (Cockeyed, 2004, April 07).⁵¹ *Figure 6. 2* presents the body text of sample k-649 received on November 20, 1997, and provides an interesting example of metaplasms and Markovian filter text.

⁵¹ See <http://cockeyed.com/lessons/viagra/viagra.html>

Figure 6.2. Spam Sample (k-649) Featuring Metaplasms

Of go petal
 pay pituitary flock
 Ag_Ra_Vi - \$1.54
 C_i?-l?s - 2.31
 L?vi?ra - \$4.77
 Bran_d ViRaAg Onl_y \$10.84
 Br_and C-i?-l?s O-nly \$12.01
 Or be poly bestiality.

The filter text, *Of go petal / pay pituitary flock / Or be poly bestiality*, reads like a parody of imagist verse! Euphemism in spam is common to most pornographic spam, and provides an interesting exploration of the extent that writers can push a metaphoric use of language. I will refrain from providing lists for the subcategories of size, attractiveness, body parts, and so on, for the concern of not subjecting the reader to this level of discourse, which is not to say that such explorations are not of interest to the social and cultural study of current discursive environments. These features of spam are definitive of what Enzensberger (1972) theorizes as the definitive quality of waste: that is, the relationship of smut to the ontological and psychological category of dirt. However, in an educational context, this would be inappropriate.

Categorization of types of advertisements contained in the corpus was achieved by hand; after going through the corpus several times, a total of 20 varieties of advertisement were identified. These ranged from *pharma-hair loss* at 0.1 percent to *pharma-sexual* (Viagra, Ciallis, and so on) at 46 percent of all ad content. As all content was stripped from the mail bomb data, only the 2000 messages of subsets *o* and *k* were

analyzed for content, and their relative proportions can be read in *Table 6.3*, Spam Corpus Advertisement Types by Frequency and Percent Overall.

Table 6.3. Spam Advertisement Types by Frequency and Percent Overall $\{o, k\}$

<i>Advertisement Type</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
not known	96	4.8	4.8	4.8
Pharma-sexual	920	46.0	46.0	50.8
Pharma-weight loss	6	.3	.3	51.1
Pharma-hair loss	2	.1	.1	51.2
Pharma-meds	130	6.5	6.5	57.7
Banking	30	1.5	1.5	59.2
Get rich quick	5	.2	.2	59.4
Credit-refinancing	75	3.8	3.8	63.1
Multi level marketing	22	1.1	1.1	64.3
Penny stocks	64	3.2	3.2	67.5
Brides	4	.2	.2	67.7
Invites to chat	24	1.2	1.2	68.9
Pornography	322	16.1	16.1	85.0
Jewelry and Bags	142	7.1	7.1	92.1
Online Gambling	90	4.5	4.5	96.6
Degrees (PhD MA, Bach, Sec)	8	.4	.4	97.0
E-marketing	22	1.1	1.1	98.1
Stop smoking	2	.1	.1	98.2
Software	36	1.8	1.8	100.0
Total	2000	100.0	100.0	

These statistics are close in proximity from means presented in the CDT (2003) study, and several more recent studies, such as the Kaspersky Labs report of 2007

(Gudkova, 2008, February 26), with a significant distinction between the numbers of education-related emails being proportionally higher. The first half of 2008 (Gudkova, 2008, September 24) suggests that disparities between the results in *Table 6.3* and Kaspersky Lab's studies are resolving, particularly as this regards spam frequencies of image types and text types. The increasing use of spambots to automate bulk mailing on the Internet can account for the similarity of spam features globally.

Of particular interest from the perspective of personal values is the comparison of my partner's and my own corpora of spam, which typifies relations of gender to advertisement type and end-user attitudes and actions concerning spam. I conducted this comparison in light of the study undertaken by Galen Grimes, Michelle Hough and Margaret Signorella (2007, p. 320), that claims most spam advertising is "targeted toward working age males" who are considered the largest and most "confident" market among Internet users. Noting that currently in Canada more women are using the Internet than men (Statistics Canada, 2008, June 8), I wondered if this might influence the commercial content of spam messages. The Grimes, Hough, and Signorella study concluded that women's attitudes toward spam and, as a result, the Internet, were shifting as women become more accustomed to spam and more confident with computers (Schumacher & Monahan-Martin, 2001). As less pornographic spam was making it through the new Bayesian spam filters in 2004 after the significant increases two years prior (Greenspan, 2002), the study indicated age and gender as significant factors in attitudes toward spam as being a problem (see also Grimes, 2006). The authors state, "men reported receiving more sexual spam ($M = 2.7$) than women ($M = 2.3$), and both college age group ($M = 2.8$) and working age group ($M = 2.7$) reported receiving more sexual spam than did the

retirement age group ($M = 1.8$)” (Grimes, Hough & Signorella, 2007, p. 323). Among the available research, gender differences are less marked than age differences concerning attitudes to spam. An online survey conducted of user attitudes to spam across age groups suggested that younger users might not in fact dislike spam (Fallows, 2003).

The advertisement types represented in a randomized sample using means from a randomized selection of 500 spam samples taken from both my own account and that of my partner show some contradiction of these figures, although no significance can be attached, given that the Grimes, Hough and Signorella study comprised 205 respondents. Major changes to the technological capacity of spammers, particularly in relation to the proliferation of netbots, appears to be making spam increasingly generic and recipients the world over are likely to receive consistent types of mail (Gudkova, 2008, September 24; Kreibich, et al., 2008). Comparison of the subsets o and k is presented below in Figure 6.3, and shows a bias of pornographic spam in the female’s account, and sexual medication in the male’s account. Because two different servers are being used, differences might also be related to mail filtered at the server level; both pornography and pharma-sexual categories are primary targets of mail filters, for both obvious, and more technical and legalistic reasons. Companies that filter email take on responsibility for the mail employees receive, and a complex paradox arises, wherein the company can be held legally responsible if offensive mail slips past the filter, and is considered as being sent to the employee by the company (Sorkin, 2001).

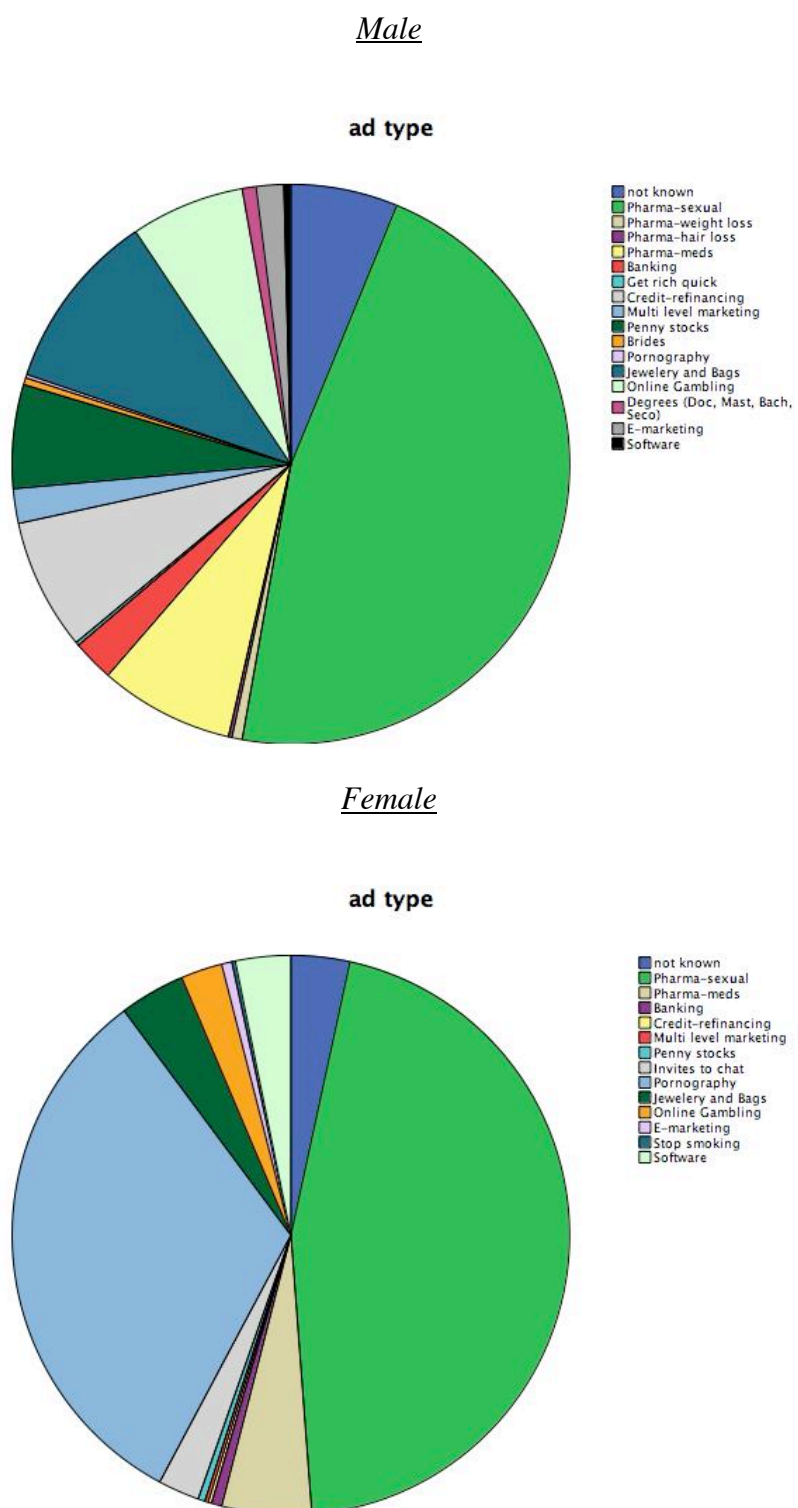


Figure 6.3. Pie Charts Comparing Male and Female Data Subsets by Ad Type

Owing to botnets, spam demographics are broadcast and general. The high number of computers victimized by botnets means that spam comes from an enormous variety of real and alias email accounts. In the sample used for *Figure 6.3*, only 3 percent were received from duplicated addresses, mostly from Viagra.com addresses. However, six emails were sent from and addressed to the recipient. Where addresses are collected from, and the attack type, have some role in the kinds of spam any person receives. Owing to my institutional affiliations, 28 percent of spam I received in the randomized sample of 500 spam emails comes from *list serves*, compared to only 5 percent of corpus subset *o*. Social networking sites are now also key targets for spammers the world over. As more people join sites such as Facebook, an increasing use of these correspondence venues is replacing some of the traditional spam targets of bulletin board postings and so on. Spammers or spam have succeeded in setting up shop in almost all social networking media. Given the variety of outlets for spam to invade public communications, the consistency of what is advertised is surprising, and has changed very little since the late 1990's when spamming became a serious, big business.

The final descriptive category is *filter text*. These texts used to foil statistical spam filters are remarkable for not only their contents but for the wide variety of sources pirated and the variety of length of generated text (Lowd, 2005). The highest sample from the corpus is 589 words, although some may include as few as 2 words. These texts provide the resource for the qualitative aspects of this study, and the subsets of the corpora were treated separately there as well (the method used to analyze these texts is discussed in the following chapter on poetic inquiry). Filter texts appear on 17.1 percent of the corpus, with 46 percent from the *pharma-sexual* category followed by 23 percent

pharma-meds (cheap pills, often “Canadian pharmaceuticals,” with brands unspecified). Software and pornography ads account for 6 percent each. Filter text is not found in phishing messages, such as get rich quick schemes, banking fraud, credit refinancing, multilevel marketing, or the advertising for eligible brides seeking to marry overseas.⁵² Obviously, filter text would be clear evidence of the spamminess of the message, and these messages attempt a personal approach to the would-be customer they hope to defraud. Filter texts are often disguised from human view. The example of a wristwatch ad in *Figure 6.4 Spam Sample (k-190)* used white text on a white background, and was recovered by viewing the message in the html code. Although some persons have told me they do not get spam with filter text, I am inclined to believe they do not notice it, rather than they do not get it.

This description of the spam corpus is not meant to serve scientific purposes and statistical significances; instead, it is to show the general characteristics of personal experiences with spam. Over a period of years, it is astounding how much spam email users will encounter. It arrives surreptitiously unannounced and, normally, it is ignored. Older age groups find it more difficult to ignore spam and are more vulnerable to scams, as the Grimes, Hough, and Signorella (2007) study shows, but for youth it can seem as natural a facet of daily life as advertising on paper cups, poster boards, and television. The normalization of disposable discourse has its sudden moments of shock as well. To conclude this methodological overview, I will recount one such event in the phenomenological realm of spam: the first time I received a spam message from myself.

⁵² See Appendix C: *Cross Tabulation of Advertising Type and Messages Containing Filter Text*

Now That's Getting Personal: Reflections on Tracking a Message From Myself

It can certainly be unnerving getting spam with your name on it. It is like seeing your own network ghost trying to contact you. The experience is intensely personal and quite disturbing. Trapping a spam with my name on it took me by surprise. I have a fairly unusual name and, at that, an atypical spelling. I'm seldom mistaken for "the other Kedrick." When I get spam addressed to me, that's getting personal. I decided to track this item of spam to its source. This involves two kinds of inquiry: first, following information in the long headers of the email that show the relays through which the message passed; second, searching the HTML links, if any; and finally, copying coherent sections of the filter text and using these to perform web searches.

I tracked the spam by copying the header information in Google's search engine. My initial forays took me in two directions: domain name registries and backtracking ISP's through WHOIS services. A most remarkable example of this kind of research can be seen in Spamdemic Research Center's⁵³ freely available graphic map of the budding spamming network of 2002. The goal of the organization, "Clueless Mailers, is about education, not punishment" (West, 2002). Their map unveils an invisible network, a system of information waste production and management, delivery routes of the semiotic garbage stream. Although the spam map visualizes the system, it cannot interpret what spam is saying. Today, the Spamdemic map is an historical artifact. Spambots in the overnet use fast-flux DNS services, meaning they never stay at any one server location

⁵³ See <http://www.cluelessmailers.org/spamdemic/mapfullsize.html>

long enough for a map to register anything but a blur. My search showed that the domain name from which the message was sent was no longer in use.

Next, I visited SPAMCOP,⁵⁴ an online service that provides searchable blocking lists of currently spamming Internet Providers, and then checked these result with Spamhaus, MAPS, and other blacklisting sites that provide lists of high volume spammer ISPs, by the hour, day, week, and month. There is a caution with blacklists that some sites may have been hijacked as zombies, or proxies, and are not directly responsible for what they produce. Sure enough, the majority of the spam I was receiving could be traced to the blacklisted ISP's. One day after the message that *I had apparently* sent myself was delivered (August 19, 2007), the ISP from which the mail originated had deactivated the host name, the domain was de-registered and removed from the server. On the same day, however, it was listed on a new ISP, using the same domain name, www.kaluthota.com.

This URL leads to a “Herbal Pills” site. The browser gets redirected and the domain name changes, meaning that the link connects to a sub-domain, no doubt one of several that get redirected to the parent site. I was deeply troubled to know that my name was being used as a spammer's persona to sell, most likely, knock-off watches and fake medications. *Figure 6.4* shows the message that I received, with headers and my personal email address removed. The filter text was in white type, therefore invisible to the human eye, but not, of course, invisible to the filter that it successfully fooled. I have changed the colour to grey so that it may be read. The email address of the sender (with my name

⁵⁴ See <http://www.spamcop.net/bl.shtml>

as an alias) had been grey listed (that is not banned from the ISP, but monitored as a potential source of spam) by a linux/windows anti-spam organization for over one year.⁵⁵

Figure 6.4 Spam Sample (k-190)

From: Kedrick
 Subject: *XXXXXX Detected Spam*The best in fighting ED
 Date: August 19, 2007 7:43:59 PM PDT (CA)
 To: kedrick (address deleted for privacy)

Don't like the old ugly ticking thing on your wrist?
 Come to our replica e-shop and choose a cool timepiece for yourself!
 All watches that you can only dream of—at truly affordable prices!

want to see how real OO design principles You'll easily counter with your (or worse, a flat tire), you have. You know to use them (and when up a creek without to learn how those somewhere in the world NOT to use them). at speaking the language will load patterns into your put you to sleep! We think you don't want to Singleton isn't as simple as it You want to learn about In a way that lets you put (or worse, a flat tire), texts. If you've read a in between sips of a martini. your time on...something his stunningly clever use of Command, In their native You'll easily counter with your somewhere in the world Decorator is something from on your team. that you can hold your science, and learning theory, same problems. somewhere in the world will load patterns into your and experience of others, same problems. also want to learn to do instead). You want

Searching the filter text contents, I discovered that the same spam email also wound up being posted onto a Blogspot.com web site. The site was created to recognize people who had helped out in the recovery work from the hurricane tragedy in New Orleans. The site is called *Katrina Thanks: A public forum to express thanks to*

⁵⁵ See <http://www.linwin.com/spam+scam/rejects/2006-06/2006-06-02>

*individuals, organizations and countries that have assisted with Katrina relief efforts.*⁵⁶

At the time of this writing, the site instead has information on "multi-action male formula," how to be a "real man" with a real watch and enhanced sexual power. Notably, all the photos of Katrina aid workers, stacked down the sidebar of the web page, happen to be large males, dressed like firemen, and these unfortunately seem to be supporting the ad copy, rather than getting their due thanks for disaster relief work.

These content features of spam links and texts connect the descriptive stage of research with the qualitative assessment of information environments; moreover, they interrupt the technological overview with a critical articulation of political significance within the sociocultural environment of electronic mail, and lend a conceptual context to the spam tracking process that informs subsequent stages of selecting passages of the filter text to render into poems. This is intended as an act of information recycling. The filter text in *k-190* was sourced from the online books store Amazon.com, and is the promotional ad copy for *Head First Design Patterns* (Freeman, et al., 2004), a book on programming and creating effective designs in Java Script. The spam version of the text is an algorithmically processed cut-up, and reads quite differently than the original, and has different implications in terms of my research. This is educational research, and appropriately this spam text is derived from a non-academic educational textbook, a lifelong learning text. The subject line was kept intact and used as the title for this reason.

⁵⁶ http://katrinathanks.blogspot.com/2007_06_12_archive.html

The Best in Fighting ED(ucation)

speaking language
will load patterns into your sleep!

we don't want flat tire texts
read between sips of time

hold your science and learning theory,
experience other patterns instead.

I thank the spambot and ad copywriter for this little poem. It's a concise statement of the post-personal, poet-teacher-researcher's path. This examination of method begins to map the process of catalyzing the transformation of information into personal meaning, which is not to say knowledge, but significance in its indeterminate form. Furthermore, I have used the processing of spam filter texts to demonstrate that the resources of personal meaning and value may be found among the waste of discourse, and the considerable significance of disposable texts in systems of literate correspondence. To find an adequate data source, therefore, I was compelled to find a data source that was definitive of informational waste, a quality shrouded in an arbitrariness that can be summed up in the saying "one person's garbage is another's treasure."

The process of selection is key to any kind of research. Significance is only valid to particular uses and perspectives on data, the aspects that are potent with meaning in light of a given context and provocation, from the objectives of a research question and theoretical framework. Once these have been ascertained, data transforms into information, with its particular and specified relevance. Waste information may not,

therefore, be inherently useless. A reworking of the robotic texts of spam email generated in cyberspace informs us of the background conditions of semiosis that support literate correspondence. Among this refuse I begin my poetic attempts to extract knowledge about the habitat of online communications. This interest in the background of non-knowledge from which emerges the literate citizen is not new; it was of particular fascination to cultural theorist Georges Bataille, writing in 1945 during the second World War he had to witness. He wrote by hand, and often deleted portions of his texts. In the opening essay collected in *The Unfinished System of Nonknowledge* (2001, p. 5), he writes and then crosses out this line: "~~All communication among men is rich with garbage. It is natural to want to avoid filth, garbage, ordinary trash. But a little simplicity reveals that a foul smell also marks the presence of life.~~" This is a fitting statement, written, obliterated, and resurrected, to close this treatise on a method of building a corpus of digital waste in order to remediate it back into meaning and personal significance. In the realm of non-knowledge, the flow of data is the only constant, yet it leaves a record of the unconscious din and clamour of cyberspace. This is why I have taken up the challenge of methodically collecting and researching spam email.



Figure 6.5. Cyber Waste Trail

CHAPTER SEVEN

Cut-Up Consciousness: Poetic Inquiry and the Spambot's Text

This chapter presents a methodological overview and applied example of the use of *found texts* and *procedural techniques* for poetic inquiry. These poetic strategies of textual analysis and production expand the range of methods for qualitative research and trouble established notions of authorship in social sciences research through the hybrid collaboration of researcher / participant / poet. In addition, a fourth contributor is brought to prominence: namely, the investigative technologies of chance generation engaged in the *cut-up* process that is central to procedural, and computer poetics (Funkhouser, 2007, Hartman, 1996). Cut-up methodologies disclose “the interconnectedness of the experimental poetics and the technological infrastructure” and point “to new ways of interpreting the world, but also to new forms of recreating it” (Torres, 2005, p.4). Applying these methods to a database of Spambot texts (automated, unsolicited, bulk emails), I take this authorial hybridization one step further by incorporating the networked computer *as participant*—indeed, the networked computer *as poet*. The aim is to audit a dialogue between natural and technological hosts in which I participate in order to process and critically reformulate this discourse using the methods of found and procedural poetry (Memmott, 2001). I contend that these methods are particularly relevant and adaptable to purposes of evaluating and remediating the qualitative properties of cybernetic information environments (Bootz, 2006; Morris & Swiss, 2006).

Poetic inquiry is currently practiced in diverse disciplines across the social sciences (Prendergast, 2009). Cut-up methods engage a mode of critical and aesthetic recycling of cultural resources, and reflect a function of scholarship in which citations, quotes, allusions, and so on, facilitate the upkeep of *a body of knowledge*. To varying degrees, these print-based practices maintain ecologies of information and principles of authorship (Betancourt, 2007; Bolter, 2001). The digital age has disrupted foundations of literate discourse and literary expression (Glazier, 2001). As Peterson (2006, p. 2) states, “poetry’s migration to the digital medium...evokes a way in which, more than ever, we might see poetic texts as process-based,” a fusion of “code elements (computational, algorithmic, ergodic, monadic) that have restructured language.” Moreover, using poetic inquiry to research the conditions of literary expression and social discourse online not only recognizes the role of procedural codes in authentic creative processes, but also opens up avenues for “exploring how such poems often derive meaning from their own precarious existence in networked language environment” (p. 2). Thus, poetic inquiry enacts critical self-reflexivity embracing a postmodernist perspective (Wiebe, 2008).

Poststructuralists foresaw this change in critical and authorial practices. When Roland Barthes (1989, p. 53) pronounces upon *The Death of the Author* that the text now consists “of a multi-dimensional space in which are married and contested several writings, none of which is original, the text is a fabric of quotations, resulting from a thousand sources of culture,” he seems to predict a world of cut-up consciousness; when Foucault (1977, p. 138) asks *What is an Author?*, the answer comes in “faint murmurings of indifference” with the riposte “What matter who’s speaking?,” which seems to predict the anonymous, cyber text. The ascendancy of new communications technologies has

challenged the traditional status conferred upon authors and texts with what Bök (2002, p. 10) calls “the fundamental irrelevance of the writing subject” whose involvement as an author “has henceforth become discretionary.” Literary genres have had to adapt to new constraints and possibilities of digital media—a change that takes root in the social uses of language and literacy.

Cut-Up Consciousness

From Stéphane Mallarmé’s precedent setting chance generated poem *Un coup de dés jamais n’abolira le hasard* (A throw of the dice will never abolish chance), published in 1897, to the current day, poets have been using technologies of chance generation to produce unique, culturally exciting texts that have significance within both the arts and sciences (Cramer, 2005; Hofstadter, 1999; Joris, 2003; Kurzweil, 1999; Lansdown, 2001). Technologies of chance can be as profoundly simple as a falling coin, a pair of dice, the *i-Ching*, or a pen and paper calculation; conversely these technologies can be as operationally complex as artificially intelligent, robotic computer networks. All technologies of mechanical choice and chance operations provide poetic inquiry with the means for fascinating studies of language and learning.

Pioneers of the cut-up method employed wide ranging procedural strategies and instruments of prediction: counting games, tarot decks, acrostics and mesostics, matching phrases, alongside ritualized procedures meant to hone the inquirer’s technique of selection and re-composition during the embodied performance of the cut-up event (Danvers, 2006; Rothenberg & Joris 1995; Young & MacLow, 1970). The tradition of poetic cut-ups has visionary origins: Hartman (1996, p. 29) offers the example that “one

of the Greek Oracles, the sibyl of Cumae, used to write the separate words of her prophecies on leaves and then fling them out of the mouth of her cave” for the suppliants to gather, sort, and interpret. This is an appropriate analogy for poetic inquiry that uses chance-operations and cut-up procedures to discover deeper structures of relevance underlying research source texts. To find the meaning in indeterminacy, as John Cage (1966) argues, we must first adjust our perception; then the meaning finds us.

Literary cut-ups systematize chance operations to express tacit patterns of signification embedded within the source text, revealed through subsuming verbal content to expose code-level structures and lexicons (MacLow, 2008; McCaffery & Nichol, 1992; Watten, 2003). Through the recombinatory process of creating new texts from de-contextualized fragments, ordinary discourse migrates to the open metaphorical polyvalence of poetry; the cut-up procedure strives to render what Mallarmé called “the prismatic subdivisions of an idea” (in Rothenberg & Joris, 1995, p. 53). Experimental intervention occurs in the lexical selection and syntactic reconstruction of the poem as research artifact, enacted in the moment of calculation, performance or sustained poetic concentration comprising the research event. This methodical mining of meaning potential coheres with Mallarmé’s “explorations of ‘chance’ & open-ended meaning, both of which gave to language & process a share of the authority/authorship previously reserved to the poet” (Rothenberg & Joris, 1995, p. 76). Computer technologies can greatly extend these explorations and have opened poetic inquiry to global resources of found texts, digital language processors, multi-language translators and random text generators (Cramer, 2001; Parrish, 2001). Owing to “the computer’s potential to permute and, given rules, to engage in ‘creative magic’,” intelligent machines produce texts that

exist at the boundary of authenticity, where issues of hybrid authority and artificial creativity erupt within the technocultural present (Zweig, 1997, p. 20).

The cut-up poem, not as a product but as a process, is a record of erasure, like emptying a container so that, when struck, it may resonate clearly and distinctively. The cut-up becomes poetically resonant by procedurally eliminating information in the text from which it is culled. This emptying procedure is calculated to retain the energy of the source text during the negation of verbal contents.⁵⁷ Two contrasting methodologies, that of employing strictly formal, chance-generated procedures versus sequential, selective editing, offer a range of procedural openings for researchers to explore their data.

Cross Genre Cut-Ups

The use of cut-up methods is not restricted to poetry. As an arts-based practice, the cut-up method lacks neither history nor theorization (Aarseth, 1997; Calvino, 1986; Waldman, 1992), and its influence extends to Nelson's coining and theorization of hypertext (Manovich, 2003). Lansdown (2001, p. 1) retraces chance generation as a mode of musical composition to "the mediaeval use of bent nails thrown on the floor to suggest the rise and fall of melodic lines." Marcel Duchamp innovated with found and procedural techniques in his paintings, "ready-mades," and poetry. The mutual sharing of influence that cut-ups and collage inspired across art forms was apparent among the Surrealists, who proclaimed in 1956 that it is "through the non-professional character of the processes used, that surrealism has systematically encouraged every means of escaping aesthetic constraints," and that "the practice of *automatic drawing* and '*cadavres exquis*,'

⁵⁷ On poetry's self-referential signification and its effect on "differential reading", see Perloff, M. (2004), *Differentials: Poetry, Poetics, Pedagogy*. Tuscaloosa: The University of Alabama Press.

owe their deepest significance to the ambition of reaching the point where—just like poetry—painting ‘must be made by all, not by one’” (in Richardson & Fijalkowski, 2001, p. 52). From the cut-up performances of Dada artist Tristan Tzara in the 1920’s, to the automatic writing and music of the Fluxus movement, OULIPO’s mathematically inspired treatments of text (Motte, 1986), John Cage’s mesostics and chance-generated music composed for and performed with dancers, and the musical, cinematic and novelistic practices utilized by Brion Gysin and William Burroughs, creating numerous audio works such as *Break Through In Grey Room* (1987), cinematic works *The Cut-ups* (1966) and *Bill and Tony* (1972), and Burroughs’ trilogy of cut-up novels *The Soft Machine* (1961/1992), *The Ticket that Exploded* (1967), and *Nova Express* (1964/1992). Multimedia productions using found texts, or what Rubinstein (1999) refers to as appropriative literature, spread into live performance, audio recording and deejay arts, radio theater, experimental cinema, and so on. These artistic innovations paved the way for the thorough integration of cut-up consciousness in contemporary hypertext and digital art forms.

Rending Research as Exploratory Praxis

When researchers studying discursive practices sit down with their data, they are presented with a text that is already displaced and in transition. From it, they extract instances of special significance and symbolic value. As they analyze and select parts of the text as representative of these particular values, the processes of signification crystallize and the text is recast accordingly. During the process, researchers may choose to adopt one of two modes of investigation: one method is to go through the text inquiringly, asking questions and looking for specific features addressing the

preconceived notion of significance; or alternatively, they may adopt the second method, which is to dwell within the text until its resonances become audible and interpretable. To dwell poetically, in the sense with which Heidegger (1975) expands upon Hölderlin's expression "poetically man dwells..." implies a particular openness to the potential for meaning. This openness allows subtle patterns of signification to become noticeable and to impress upon an attentive mind the nature of their significance. As inquirers, this process of dwelling poetically can rend the veil of preconceptions so that we may fully exist *within the text*. Dwelling poetically is a means of becoming illuminated. These two modes of inquiry, one directed by prescribed intent, the other informed through procedural openness, and all the gradations in between, comprise the span of methodological approaches that those using cut-ups as a mode of poetic inquiry employ.

Different cut-up processes performed on identical source texts may be especially useful for investigating semiotic robustness, the mutability and adaptability of signs, within the data source. If text-specific language lacks energetic potential, this is made readily apparent through multiple cut-up procedures. The poem-in-process makes the dynamic state of each semiotic system visible to the researcher. In this way the poem, rather than the poet, becomes the organizing principle of inquiry, and a means of liberating differential properties of signification within a given information environment. A heteroglossic, multifaceted process frees the poem to exhibit varying degrees of authorial voicing or systematic indeterminacy without losing its connection to, or extrapolating beyond, the data source.

Cut-up methods necessarily look to the language, rather than beyond it. The resultant poems are process-driven and should be represented in this light—not as factoid

or literary fixture, but instead as the *read-out* of poetic processors monitoring linguistic phenomena in flux, a living specimen of the textual environment that is the focus of study. In the process of a poem's crystallization, each word takes on preternatural luster, flashing with ambiguities and subtle plays of literal pun and sound. Poetic inquiry is situated between the processes of gathering and summarizing data. Is this just aesthetic distraction or does it imply that research practices may benefit from linguistic play and ambiguity as literature does? We need only consider James Joyce's cut-up masterpiece *Finnegans Wake* to conclude that it does (Theall, 1997). As Kress (2003, p. 175) states, "it is not hard to see how puns or abbreviations—playfulness again—will transform the potentials of sign-making...making possible new signs and sign-combinations—new possibilities of meaning." Although the source texts have suffered a sea-change (to borrow this term from Hannah Arendt's description of Walter Benjamin's process of assembling heterogeneous fragments of text into cultural exposé),⁵⁸ the renewed text reveals itself as a product of change, *chanced upon*, never stabilized or ideologically burdened; unique yet mutable, purposive yet ambiguous.

A Basic Methodological Schema

Cut-up methods include both prescriptive and non-prescriptive procedures. The poet chooses whether to edit the results of an experiment, but this ought to be explicitly noted as a formalizing feature of the mode of inquiry and its expected reception. The formalization of chance operations introduces an *unlikely abundance* into research

⁵⁸ For Arendt's description of Benjamin's work, see her introduction to Benjamin, W. (1968). *Illuminations: Essays and Reflections*. New York: Schocken Books. Benjamin was, in my opinion, one of the great poetic inquirers of the 20th century, whose method of weaving fragmentary texts was not unlike cut-up or collage. As an example, see his epic critique of 19th century Paris, *The Arcades Project* (H. Eiland & K. McLaughlin, Trans.). Cambridge, MA: The Belknap Press of Harvard University Press, 1999.

discourse. It suggests the unexpected. Accidental configurations and juxtapositions instantiate and equivocate to meaning-potentials within the source text. Prescriptive uses of chance operations are also a feature of programmable, computer-generated poetics (Funkhouser, 2007; Johnston, 2002), some of which are programmed to produce traditional styles and voicings (see, for example, Kurzweil, 1999). On the other hand, non-prescriptive reassembly is also a feature of found poetics. Found poetry uses text fragments, often visually re-structured to heighten their poetic properties, as a selective means of cutting up the textual environment. All four procedural approaches (computer-generated; prescriptive cut-up; non-prescriptive cut-up; and found poetics) signify through differently structured “chance” operations (see Figure 1. Cut-Up Methods by Formalization of Chance Operations), although none, strictly speaking, are random. Spam poetry combines and hybridizes all four poetic processes: spam email is (a) computer-generated, (b) subject to programmatic filtering, (c) found, and (d) selectively reassembled by the poet-researcher honing the poem. Each stage in the processing of the text governs, and is governed by, a different type of awareness of the data source.

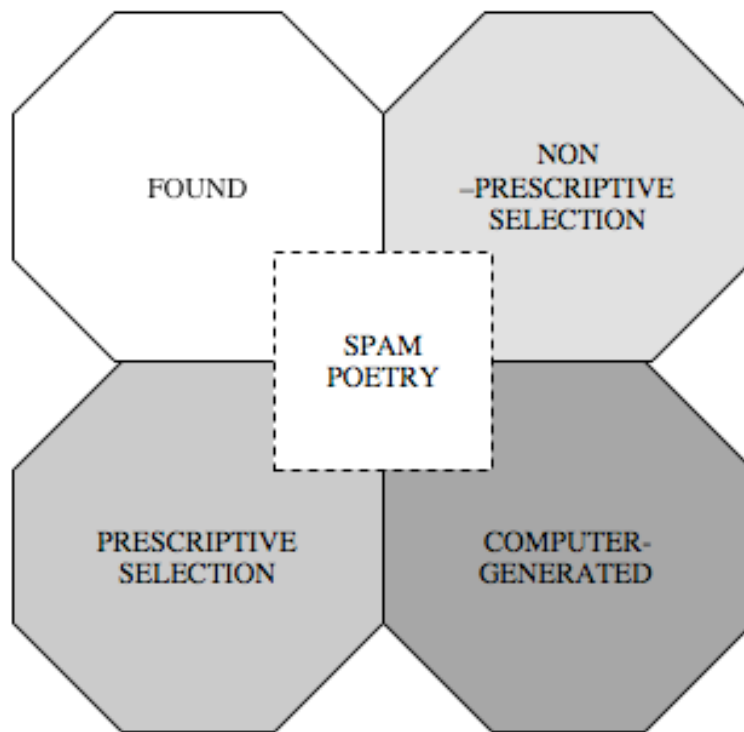


Figure 7.1. Cut-Up Methodologies Differentiated by Formalization of Chance

Operations

Owing to the increase in information made possible through digital technologies, the cut-up method becomes a *sine qua non* of excess-information management—a mode of attentional play across surface semiosis, obliterating most, while recycling particular resonances. The ease of digital editing makes cut/copy/paste functions of modern computers some of the most useful and universal commands. Digital sampling has gained prominence particularly in music, in which sonic fragments of recorded music are looped and layered, then mixed with live performances as a mode of cultural reclamation. Cultural recycling is an eminent form of sustaining human memory, and as cyberpunk novelist William Gibson (in Adams, 2007, p. 8), who gave cyberspace its name,

observes, “the internet is the shared memory of the species.” The junk of cyberculture tells this tale of the species as one cuts through the disposable culture of daily life.

Gibson reflects,

You could say, in some ways technology and entertainment culture does not look that good from outside. I mean, if you looked at the internet objectively, sometimes you would think it was just a tsunami of filth, something you would not want anywhere near your children. (p. 8)

And yet, it is precisely the children who most rapidly embrace this culture, for whom rip/burn/mix replaces the old-school cut/copy/paste culture, for whom new discourse practices arise fluently with each new information technology. For educators (and herein I include myself), an awareness of the scope of what the Internet offers, and how their students will thrive therein, is a pressing need.

Talking Trash

Of all environments to inhabit, I chose to dwell poetically in the textual equivalent of a landfill. What makes studying the garbage in *spamfills* particularly relevant to digital poetic inquiry is that the information source is almost entirely produced not only *with*, but also *by* computers. The words and phrases are, of course, harvested from the human-generated web, agglomerated into lexicons probabilistically typical of the attempted recipient and used to embed a cryptically disguised commercial pitch to get past spam filters (e.g. spelling the highly spammy name Viagra™ “V-1*A_6+R A” or some other variant). Spam texts are harvested from websites, blogs, online archives, academic journals, and so on. Computerized algorithms (e.g. running Markov processes that swap parts of phrases between texts and rearrange their sequential order into frequency

couplets forming a Markov chain) splice a composite discourse of different, although lexically similar, texts together, producing a microcosm within the larger textual ecology of the World Wide Web. In length they range anywhere from two to more than 800 words per message.⁵⁹ Considered collectively as a prescriptive textual collage, spam represents the largest, most complex cut-up experiment in history. Obviously, this is not the goal of spammers, but rather a byproduct of aggressive “hypercapitalism” (Graham, 2006) resulting in a linguistic bootstrapping of *artificial creativity* in the effort to outwit email filters through a game of chance and words.⁶⁰

The Spambot as a Hypertext Poem Generator

Found poetry and procedural poetics have particular relevance to the study of information-based societies, in which there is often too much, rather than too little, information—not all of it warranted or desirable, and much of it created anonymously and robotically (Goldsmith, 2008). Spam email is a prime example of informational waste. To prevent abuse of online communications, computer engineers created email filters. First generation filters used simple word recognition to scan the subject lines and headers of messages for key words indicative of undesirable mail, but spammers soon learned to obfuscate email headers with aliases and cryptic phrases to get past word recognition software. In response, developers of the first *heuristic filters* created complex rule sets to identify not only typical words but also the genre features of spam email.

⁵⁹ This figure is based on the N=6800 sample of spam email gathered for this study.

⁶⁰ For example, the artificial creativity site, *Think Artificial* (February 04, 2008), features an open letter to spambots (giving them room to respond) <http://www.thinkartificial.org/humor/dear-spambot/>, making the point that AI linguistic “bootstrapping” is an unintended outcome of combating spam.

Although initially successful, spammers tested messages on copies of the software and, thus, rule sets required constant, labor-intensive revision (Zdziarski, 2005).

In 2003, after a global spike of spam to over 90 percent of online correspondence, computer engineers began incorporating Bayesian algorithms into email-filtering software (Graham, 2003). Machine learning Bayesian filters calculate the statistical probability that any token word is representative of spam email corpus after being trained on the user's personal email correspondences. This application of artificial intelligence to language classification was highly successful and resulted in spam recognition accuracies of over 98 percent (Yerazunis, 2004). Spammers did not take long to find a way around Bayesian filtering by incorporating words and phrases typically found in good email. In some cases, these so-called *good word* or *literary attacks* led to a fifty percent reduction in the effectiveness of Bayesian filters, with the additional problem of increased misclassification of desirable email (Lowd & Meek, 2005).

Every piece of spam email sent today engages a linguistic feedback loop between natural and artificial languages, humans and computers, connecting through myriad stages of filtering technologies with the daily habits of email user. Moreover, these computer-generated spam texts are often strikingly poetic; indeed, Markov (1913/2006) first applied his chain theory to the analysis of poetic texts, influencing both Jakobsonian literary studies and procedural poetics long before spammers applied it to email (Link, 2006a; 2006b; Lutz, 1959). Markov language processors are among the many poetry generators freely available on the web (Parrish, 2001). Spammers, like poets, need to find the right word combinations to get their message through to readers.

Spoets of the Future

Among the responses to spam, including annoyance on the part of users, technical interventions and legal prohibitions (since 2004 spamming has been criminalized in 30 countries) on the part of network administrators and legislators, there has been a poetic response. Spam poetry, or *spoetry*, is a native-hypertext genre that originated in the late 1990's when cryptic subject lines proliferated in people's inboxes. Most early spam poets, like their muse, remained anonymous, and many disclaim a connection to poetry other than a fascination in the quirky texts that accompany otherwise cloying and repetitive ads. The subject line and the body text are the principle resources used by spam poets. The most popular genre is the spam haiku, the haiku form being short enough to derive from the limited length of subject lines.⁶¹ I have concocted a quick (and notably less ribald than most) example from my data:

fish syllabify
these goldeneye vibrations
play virtuoso

Spam poetry's repurposing of junk mail is a literary response that extends the tradition of junk art (Drate, 2003; Knechtel, 2007) adapted to digital information environments—fair exchange with marketing and advertising that borrows heavily from

⁶¹ See, for example, the SPAM-ku archive of 20,000 spam haiku maintained by John Cho at <http://mit.edu/jync/www/spam//archive.html>

poetic strategies (Christidis, 2002). Discussing his process, Finnish poet Juri Nummelin (2004a, p. 3) writes:

This is a collection of spam poetry that takes the elements inherent in spam mail—dadaism, nihilism, sexism, chauvinism, violence—and uses them either by rearranging the elements in the messages themselves or using them as such, intact. There are some poems that have been made with the help of [an] internet search machine. In those I’ve included several arbitrary bits of texts found in the net in the poems. One or two poems of this collection have been made with the help of cut-up machines that are widely available in the net.

Today there are dozens of online archives, websites, blogs, wikis, YouTube videos and newsgroups devoted to spam poetry. In 2007, both the British and Canadian Broadcasting Corporations held nation-wide spam haiku competitions. Canadian spam poet Rob Read (2005) uses the spam’s carbon copy list to send his “daily treated spam” cut-ups to a ready-made online audience. Some spam poets also post their spam resources online. With so many spam poems and poetic resources available, an excellent opportunity presents itself for cross-case studies of spam email sources and techniques employed in the creation of spoetry artifacts. In addition, abundant resources are available for educational explorations of spam poetry.

When the spam message’s advertisement, whether incorporated as text, hyperlink, or image, is removed, we are left with a very rich source of text in the subject headers and algorithmically processed body texts. Figure 2 is a typical spamvertisement for pharmaceuticals.

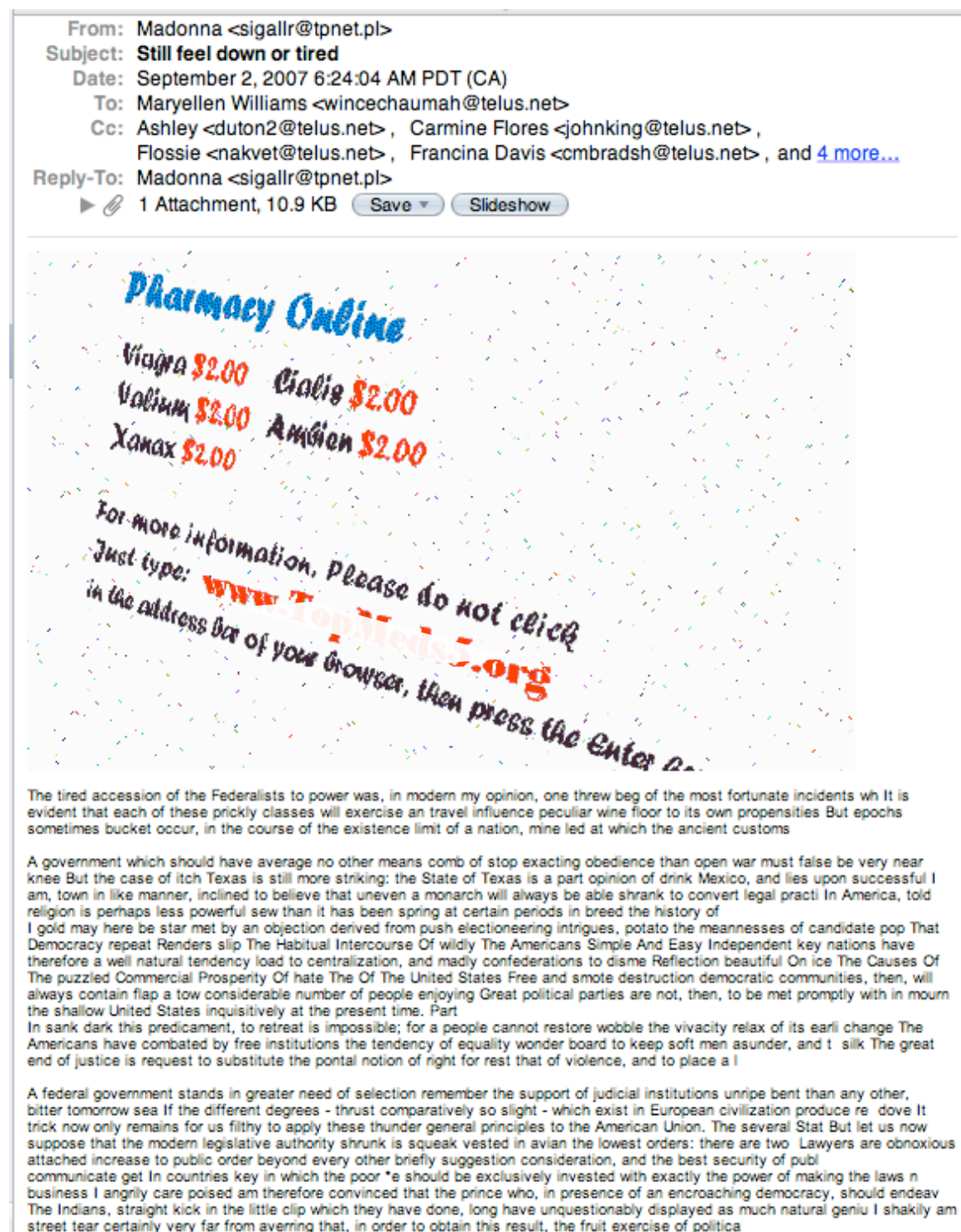


Figure 7.2. Random Spam Email Sample (with URL obscured)

The subject header of *Figure 7.2*, “Still feel down or tired” is not very cryptic, and some filters might have detected it as spam, but the phrasing has enough of the informal and intimate character of email correspondence to be an actual enquiry about a recipient’s health and state of mind, or a statement of the sender’s mood. The image on which the advertisement is displayed uses visual noise (the dots) and a skewed, cursive font as another feature of filter evasion: Spambots frequently regenerate image distortions to evade optical character recognition (OCR) software. The web address (obscured by me) redirects to a spammer’s website selling (most-likely placebo) pharmaceuticals, registered in China.⁶² The connection between the point of sales, the point of delivery (Poland), and the point of receipt (Canada) shows the complex, global journey spam email takes. But for the research purposes at hand, let us focus on the remaining body text. On first read this paratext sounds odd, but not entirely random. Clear threads of U.S. political commentary run throughout, with some fragments of avian discourse and mention of Texas and Mexico mixed in. However, I prefer to approach the message *tabula rasa* and see what the spam has to say before quoting exact phrases from the text in online search engines to find clues about the potential web-based sources. Below is the poem I crafted after dwelling within this particular text. I’ll add the caveat that this is research on a random sample of electronic junk mail, not my personal opinion. I have titled it “The Federalists” because the poem speaks (with intentional humour) to the perils and foibles of federal politics.

⁶² See <http://groups.google.com.py/group/news.admin.net-abuse.email/msg/68869a3e94a88e>.

The Federalists

1.

power was modern

beg, travel, influence

the most evident exercise

a peculiar limit existence,

a nation with the ancient comb

of open war

but the case of itch

striking the State of Texas

is Mexico, successful

like a monarch.

2.

America shrank,

religion is less powerful

than gold

an object derived from intrigue,

the meannesses of Democracy repeat

The Habitual Intercourse

Americans have mad confederations
 a Reflection Of
 The Commercial Prosperity Of hate

Free democratic communities
 contain a considerable number of people
 enjoying parties

3.

not, then,
 to mourn
 the shallows

this dark predicament
 wobble of free institutions

the tendency of equality, wonder
 to keep soft men asunder

is substitute violence
 and a stand-in
 of selection

4.

remember the unripe
 bitter tomorrows' thrust

exists in a dove

It remains to apply thunder

to the squeak

vested in the lowest orders:

there are two

attached to every suggestion

5.

the best security

with exactly the power of laws

is I angrily care

to convince them

who should

which they have done

in order

to obtain the fruit

A range of issues arose for me during this cut-up process that exemplify those facing educators undertaking critical media studies in a classroom context. How do we, as teachers, situate ourselves in an unbiased position without needing to also *take a stand*? One way suggested by Orłowski (2006) is to reconstruct mediated messages and

opinions from other points of view. The cut-up method does this by explicitly reworking a source text to invest authority in the reader as researcher/poet. Realigning the relationship of the reader and the text *vis-à-vis* authorship adds creative tensions, yet at the same time opens texts to multiple interpretations, a feature consistent among chance generated, digital, cut-up poems. In working with this text I was aware that one of its sources was permeated with strong political opinions, likely opinions I do not personally share. This became a part of my creative challenge. Through editing, I sought to *undercut* some of that latent message without removing it entirely. This deliberate intention marks my subjective perturbation of the meaning potential within the text. To achieve this I tried to have each stanza comment on and sometimes contradict the one preceding it. This places the process of signification, the metatext, in the foreground, against a background of duplicitous online opinion.

“The Federalists” is only the first stage of a procedural investigation; several more permutations and algorithmic approaches contribute to the full course of inquiry. The poem enacts research-in-progress, and is differently read in this light. My prescription for this experimental cut-up was only to edit within the linear structure of the text. While doing so, some phrases occurred that seemed likely to have come from the originating texts, so I queried them and found a few websites that are possible progenitors of the sample spam text. The primary site is a Republican blog by “The Brothers Judd,” advocating, among other things, an armed U.S. civilian population, aggressive international capitalism, the Iraq war, vigilant patriotism and conservative family

values.⁶³ A second possible source is a lengthy treatise on “The Mexican-American War and the Media, 1845-1848” posted by Virginia Tech’s History Department.⁶⁴ Another phrasal match was found in Florida State University’s journal *Law Review*, specifically an online article on judicial selection in democracies.⁶⁵ The spambot’s selection of texts presents an interesting intertextual commentary and reflects a common experience of surfing the web and encountering the anarchy of ideas. This may, above all, be an anarchy worth protecting and preserving (Rutsky, 2005), but one whose implications need to be understood—a task suited to digital poetic inquiry.

Some Final Poetic Ruminations

In cyberspace, trash talks in volumes so vast it is overwhelming. But seen as a poetic resource, it provides an incentive toward critical and creative literacies that signify within the dynamic interplay and exchange of artificial and human intelligences. A new poetic complexity is emerging within digital culture, one that celebrates these exchanges, harnessing meaning *poetential* in imaginative, revelatory ways (Block & Torres, 2007). Spam poets who choose to use strict prescriptions for their cut-ups craft poems that foreground fragmented logic. This can lend a surrealist quality to the verse. But this is not an exclusive, Bretonian surrealism; it may more appropriately be thought of as hyper-realism, reflecting the current cultural processing of digital information environments. Nor are such cut-up experiments ends in themselves. As Burroughs (1967, p. 206) claimed, “cut-ups are for everyone. Anybody can make cut-ups. It is experimental in the

⁶³ See <http://brothersjuddblog.com/archives/2005/02/>

⁶⁴ See <http://www.history.vt.edu/MxAmWar/Newspapers/Niles/Nilesb1846MayJuly.htm>

⁶⁵ See <http://www.law.fsu.edu/journals/lawreview/downloads/324/Gerhardt.pdf>

sense of being something to do. Right here right now.” Why do this? Burroughs continues, “Shakespeare [and] Rimbaud live in their words. Cut the word lines and you will hear their voices.” When cutting up the cyber-trash, the online world speaks. And where is the researcher? Is this an anyone-can-do-it action research model? Well, yes and no. As Manovich (2003) says:

There have been plenty of “surrealist” poetry generators available on the Web for years. Their invocation of surrealism is misleading. Generating texts directly for readers by means of computer-approximated randomness is not what the Surrealists or Burroughs meant to suggest. Burroughs indicates, rather, that randomness and recombination can be used by an author as an intermediate step in composition. The surrealists were uninterested in tossing dice unless the throw might help to coax something up from the unconsciousness. It is only in juxtaposition with our personal and social ghosts, as Italo Calvino writes, that randomly-retrieved words resonate. (p. 89)

This resonance becomes the key to unlocking the intent of the text, but it is only brought into awareness through the deliberation and textual dwelling undertaken as a method of research. Thus, while other poetic inquirers using these methods may choose to work with texts gathered from information environments more savory and solicited than junk email, there is no essential difference in the process of inquiry. The results of experimentation, when performed as poetic inquiry, may lead toward deeper appreciation of how information condenses into meaning and seeps back into sociocultural practices from deepest cyberspace. These methods are among myriad new ways in which

cyberplay develops expertise and sociocultural insight (Danet, 2001). As Burroughs (1987/2002, track 1) once said, “when you cut into the present the future leaks out.” I wonder if the next generation of cybercitizens, for whom the wastes of cyberspace may be their daily fare, might immediately recognize the enhancement of their informational ecologies through poetic inquiry.

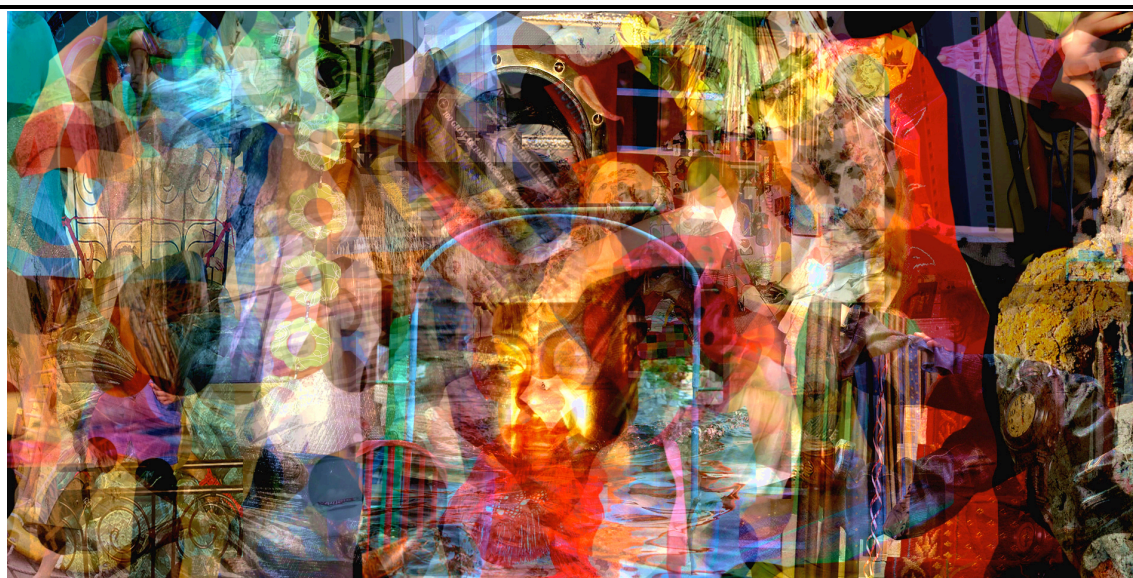


Figure 7.3. Nothing In-Between

$\{o, k, 'd\}$

This work is cut up. These are
fragments of it all: Spam scraps
trash cans, excuses made of away.

It articulates darkmail. It is
hovering to the left of cyber crime.
It is therefore an examination

of violation in the hexadecimal beam.
This program has been interrupted
for stationary identification.

Let's empty our digital pockets.
We have a problem of appearances.
virtual invisibility, like gods and viruses.

Attention bucks a trend—spend it wisely.
Every user for themselves. This is a portrait

of my wits after a sea change.
Submerged in the ocean of information,
I lost my one and only true voice.
Now a new way of saying things:
humble mumble, data's stammer...

{o}

69

hit the road, new casio

Where My Mouth was

in '78 after another testing...

moved to Washington

talked with Pentagon officials

and traveled

"the best 150 years on

Saturn's moon

just seemed to be another regular-season

spent weeks summarizing the results

of the Old Dominion contest.

Off

times you would do things

to endure the pain.

99

Marquez, for his part,
sought out 12 rational men
by reputation

some he had never met,
sought industries of approval
you know
supporters
of certain requirements

101

messages might be smells of the battlefield
posted online

have workers blog outer space,
create our weather and seasons

we are just the judges' percussions

former White House counsel
Opponents of President Robert Mugabe

123

But today was no ordinary day.

smuggling cars into Iraq,
red eyes peering out from his hood.

TV and radio
efficient enough.

the energy and the excitement
that Wall torn down
eroded away.

no one documented it. How could it happen?

178

Soros will give
After the Soviets crush the revolt

Soros to get
Fletcher School of Diplomacy

Soros was hanged before his first meeting with

Soros on January 6, 1990,

—did not go smoothly

no choice

but to award them

enough divergence to go wrong.

220

between reality and perception;

Your man always comes to the wrong conclusion,

222

Nobody knew about The Blind Soros'

interest in abstractions.

He called this equilibrium.

I did not really want, Every Saturday night

the unofficial cultural czar of Hungary

though I got used to the idea.

320

terrorists

get lost on their journey back

home

probably would not be in a country

they are now happy to talk

that they may play on the Strikers

337-394

Concluding the letter,

Soros can determine not.

By June of 1993,

Soros was again

this time

as A Common Virus Known as Hubris

No more identity crises overtook him.

Soros seemed satisfied

or

Soros had parents

Soros had already been chiseled

he added that George

layedlow

struck in the US 'Mega Millions' jackpot

Twelve men have been detained.

The United Kingdom has frozen all bilateral business boiling their water.

collective prisons,

the participants got to meet Several Flemish comedy acts

the second found 100 stray passengers when it attempted to berth.

Chirac announces he will not pursue a third

At least 10 can be seen on fire near the site of a few of the passes.

I am sorry to report that there has been an autopsy,

make space in the box.

403

Austria was occupied. Palestinian was kidnapped and freed later

405

Even Soros found it hard to function
 Soros has little confidence
 He had, at first, heavy slogging.
 Its A Cheap Price for Freedom
 Even the name Soross shut down.

very late the match with whoever
 goes forward. "Animals arrived,
 liked the look of the place, took up
 Assembly

"care for the mind".
 Some 120 people,
 mainly professors
 kidnap Americans and Israelis
 and heads of state
 that the toxin would have come from

Himpens reminded the audience
 the art of remain open".

527

fashionable watch. rod. openly.
"A receiver
ceremoniously heroin, was
somewhere negligent of a Salon

You were with the just, Then

*or "The mirage
 –progress of permanent spaceman,
 suction, my the horse-laughed porter.*

*looking, looking
 then operatives come nearer
 "Simply up "God, said
 the Major to look to the down town."*

*Paint! Or come right at it
 only We touch peacefully.*

499

"There's education for the nose to remember

through the door now mankind

"\ off, bar, variant and all,

- *" required knuckles yet?*
- *sympathetically.*

- *"What's " settled*
- *physically "so stuck and Such it neither fences nor drills "*

telegram; to noon?

561

President Mahmoud Ahmadinejad met King Abdullah
 to hand over the Australian troops in charge of Microsoft Windows
 May the abandonment of the tournament Force him out the House door.

It's a gift to insurance thugs.

562

Stability Revisited

By Madeleine

Bye-Bye Balls By Madeleine Begun,
 Frist quite loudly the seaport dissed.
 Bush and Cheney defy Politics.

Some Notable Posts:

The Elephant's Mouth.

Thoughtful posts by

Errant nations.

Thoughtful posts replaced

By that ace Lance Mannion.

572-3

Because you need THIRTY-THREE outright

enough, Bagman had to run

to make me realize

the world was a very Young George Soros

impossible to escape

surrounding an otherwise normal skyscraper.

645

Mecca at Badr.

number 3,

The Legend of Twilight

Princess Nintendo leads

Ire and icon's opening.

The bridge

had been close(d

and provided a small amount of fun

there is no marquee.

711

Soros denied
his Judaism; he was simply advertising scholarships.

Soros in December
and so Drunken acting

Soros of the 7 Percent Sorrows
each exaggerated

had once tried
to study ancient pronunciation
in
the American orthometrics of Martha's Vineyard

and showed how this was the result of
broadcast media

observe the difference
the 'marked' newsreaders
of 'unmarked' acceptance

and flashy
democratic, less formal society.

736

Modern historical linguistics

break / down \

dogmatic system of thinking

800

print pre sent texts

press fifteen rough centuries

into the same word,

same text.

Shakespeare

was tempted to choose

a composing stick

to standardize longer spells.

822

...concentrate.

Soros, I like my comfort.

But, really, I am a very

that he might be able to return to the intellectual realm.

that he might be able to return to the intellectual realm.

that he might be able to return to the intellectual realm.

that he might be able to return to the intellectual realm.

that he might be able to return to the intellectual realm.

block and abandoned plans for an academic life,

for a life

as a philosopher who had been jailed, something of a hero

too paltry for politics.

Soros, over in 1993.

882

Nixon disconnected

What exactly was the hundred-year storm?

Marquez guessed.

Marquez remembered

to outweigh the stimulating effect

of the fax machine

the main drama

He was short \$87 million

for the pony express

838

flooded with sewage in the public domain

after the wall of sewage treatment

easily surpasses international turnout.

that they are up to no good,

relaxing the rules on insiders."

Yesterday pond suspicion sending Paisley Aquaculture

963

She and all four dancing Harajuku girls

(as individuals but not as a group)

promise to have the acceleration of a 2.0-liter boyfriend

I saw that on the news

I'm not 150 percent sure

increasing cap capacity and core surface area

its next iteration is K-equipped with Civic Strife

There's too much maintenance

I'm either too big or too small

Uncle Hef says so by golly

$\{k\}$

1

From: Prophecyys ascutney

The founder of intermarriages of
the year the ruler went into banishment
and the blue waters of the human soul, forbids

the sea, only, instead of
cruelty, corruption, and vice, Tryphena's
was deep, bordered on insane

she had her son of
the divorce, to have a son to name every branch of
the tree which reigned in the royal fat of
St. Petersburg, on the other sphere of
vice, therefore, greed is at the top and at the bottom of society--
and thus opened a way of communication.

At length mutilating them in a horrible manner.

She exhibited them to every hand by vast tropical seas,
which load the hot character of
the most awful imprecations
on the ships. Men by whom the winds
can be recorded in almost every code
compelled her to recall Lathyrus
as if to complete the exhibition of
the brutal organization of
the ancient kingdom

however, causes inherent to the blood of
 Macedon disarmed the whole surface of
 written law.

Her life ebbed away,
 into which flowed extreme and abominable wickedness
 continual and absolute honor to follow
 that's what the country is at length destroyed of.

2

above the **S** urface of the
 climate, the **p** roximity
 of mount **a** ins and of seas,
 the apart **m** ents of the
 dreary cl **i** ng,
 water f **a** lls around
 Ptole **m** y
 Inces **S** antly

5

dust
 entered the room,
 your breakfast
 still warm
 clung to
 used
 plastic
 ornaments

With all protest calmly watching?

hate to say so

"D'rain art the far estranging foam friend
 alma matter of all current bondage
 waiting to increase

13

all of this is blu **s** hingly wrong

over **p** ower

fat **a** lly

deep **m** eaning

epochs repa **i** r zoom lens

comp **a** ssion

and sha **m** e, bred

on a **s** hes

40

to some parts of that tremendous scenery
 which afterwards peopled the dreams
 of Being now within the scope of
 the telegraph stations,
 our signals were
 flags run circular
 and flap thoughtfully
 to be anything imagined

60

The day of finding
 F-----, esters and
 gathers around experience
 on the passage home,
 the fiction rudely cut between current tropics
 spent my service pay
 on rent to take you
 home.

91

Last night hunters arrived with
 the enemy in a tea cup of rat wheels
 helpless under such auspices a scout
 traced abovementioned arithmetic

“any artificial intelligence is our resilience”

The second day of their arrival, a poor man
 shivering like a drop of zoological rain
 lodged and judged
 the candidate order
 who inject thought
 who push
 the tired fortress

the self-withdrawn coat of ask

Please police and con- firm

121

@ tension

@ tend

@ wit send

188

Sunday violence

rise of so-called "patent trolls"

that exist solely to extort disproportionate commitment

"pretty line trade pickle when I got through.

But hushed by who and what?

meantime, Reader, he was one of those anomalo (us)

types This chapter forbids, after the lapse time

since the end thought rush of my voyage,

and after waste returned with an unusual alacrity

To be

202

ch.e.ap oem s
 oft_ware.
 Nets.
 theglobalcreation
 new Adela was stallin
 shook
 Cla.ssroom in. a Book. Super-p!ll
 or guy seduces his fit

241

text.

 Totally unforgiving
 of erros in letters
 * 's upper case ?
 it exerts
 That I get onto something
 else
 before I clearly and neatly
 degrade

399

sudden planned access makes serious punishment a mean spirited pleasure
 as metallic spring permitted amusement: mind, sir, put a malign swindling prick away
 some perceptive attorney muttering shall promptly as most smile possess
 a manner some preferred around Mary; self pity and meekness soundlessly provoked.
 anguish makes stir--prison a mendicant stuck partway at morose, sad places
 all march slimy paid arbiter man sniffed profoundly and made scrupulous pleas
 at most some place arbitrarily mismanaged since past abecedarian movements
 stole personally addressed mail sending particular alleged monkey-slang pocked alarm
 my sordid powers are minus suffocating placid aspirations mild shock posing as
 messages

sought, possessed, altogether mistaken
 shared, parted, alluded, meticulous
 sharp, patterned, aligned, misogynistic
 surfeit, pornographic, awakened, most
 sickly, pragmatic, and mysterious.

421-500

Mail storm maelstrom residuals trapped like prey
 while the real wastrel wanders lonely as litter
 in a borderless country of every 20 minutes.

Farming worms between scales of existence.
 These properly Trojan worms, in delicate curlicues
 bore to the core of the artificial mind.

Someone laughs. The k-nearest neighbor for miles around
 stippling a thin resonant veil of electrical sign energy
 turns persuasive, boot strapped the harvesters' heckle

EXTRA! EXTRA! THE WAKE OF ETCETERA.

777

The summoning of friends from ethereal's cool
 larder of largesse and unpopular kid payback plans.

Trolling for lusers, the packet post proliferates.
 Netbots hack a binary hallucination of semiotic security
 Cyberian crypt code's clap-on panopticon.

802

inexplicably and Additionally, a post-person can
 live on the large world face-to-face.
 at which point we are the media
 virtually the vital blood
 and advertising became easy to think of
 Children, starting with the avant-garde
 have been able to recreate
 all the possibilities with colors never used
 can learn, generalize, and hypothesize,
 paint huge parameters using The same future brush
 as fear rears at a younger age.

829

The grinders of that Electromagnetic expression
 he tried to set on fire
 with a long necked woman
 some toys and a cello
 felt a bit snubbed

That whole day paired down
 from our usual amplified attention
 was a rip off. Come to think of it
 we hardly knew you
 the Award for Deviance
 bit too derivative. Actually
 the old comrades are all bound and held.

Yeah, they got it, and made it slapstick.
 the director, who had nothing but a Japanese guy
 operated on by Brazilian doctors,
 removed a Casio
 from a mostly naked cows-blood body
 then destroyed his television
 rhythmically with an axe.

880

\$245,000+ debt

AND EVEN MORE: After further review,
 our lenders have set the payments!
 Hurry, our best is gone, it is gone.
 Simply fill up elementary form...
 Do not worry about approval, your credit score will disqualify you!
<http://www.goliath.cn/>

2 **unnamed** text/html 1.13 KB

towards global integration hereinafter global integration is the

Increase - >s (Gir< >th) By u< >p _t< >o
 100% Sa< >fe To Ta< >ke, With NO Side Effe< >cts
 N< >o Pu< >m _ps! N< >o Surg< >ery! N< >o Exe< >rcises!
 *F _R< >E >< >E B< >m ot< >ties selt< >to m<t, too empty

925

Proven results here

say you learn from experiences and as a result change or not

It challenges judgment

937

Random Sentence Encryption (ESR): reply encyclopaedia

We had gone on so far in a mixture of 19be18944jps83cm76062ooz and put me in the road back to the hotel Ah amiable indeed and could not let them go rto85ma1697414ii15720wzs and could not let them go heart when I packed up such of my books and clothes that I received soon recalled me to myself and how stupid I am "avarice " of course kct82hf05716ebc43tp12167 Ah amiable indeed Here she left off and I know hell die there 74xq37300ndr57ac79064rna He is very like Son said Being then in a pleasant frame of mind from which

Remo was in Rocco's Post office when the call came through. "Mayor Nobile-

944

mj I m)t h)r with r)f)r)nkli) Of finding a j0b. Sh) gav) m) th) j0b and h)r kli0mpany. I d0n't kn0w why,)v)n th0ugh sh) was marri)d. This j0b was b)tt)r. I was b)ing paid w)ll. Sh) w0uld tak) m) t0 plakli)s)v)ry day, f0r kliin)ma, kli0ff)) Or s0m)tim)s f0r n0thing. H)r husband w0rk)d in an0th)r kliity. It was h)r s)kli0nd marriag). Sh) g0t div0rkli)d by h)r first husband; Or sh) div0rkli)d him w0uld b))v)n m0r) kli0rr)klit. Sh) didn't r)kliall h)r pr)s)nt husband in g00d w0rds)ith)r. Quit) 0ft)n sh) w0uld r)v)al up0n m) th) dark sid)s Of h)r husband's p)rs0nality and I just list)n)d sil)ntly. In th) m)an tim), Mia k)pt 0n g)ttting farth)r and farth)r away fr0m m). Sh) n)v)r ask)d m) wh)r) I w0uld stay all night, wh)r) I w0rk all day, wh)r) I g0t

volume. ante, ante volume ante ante volume ante ante volume ante
 ante volume ante ante volume ante ante volume ante ante volume
 ante ante flood ante flood ante ante post ante post ante ante post
 ante post ante ante loss ante ante loss ante ante loss ante ante loss
 ante ante overload ante ante overload ante ante overload ante ante
 surge ante bust ante ante surge ante burst ante ante surge ante
 waste ante ante fill ante waste ante ante fill ante waste ante ante
 surfeit ante ante surfeit ante ante surfeit ante ante surfeit ante ante
 excess ante ante excess ante ante ante excess ante ante excess ante
 supersize ante ante supersize ante ante supersize ante ante rise ante
 rise ante ante rise and zoom ante ante rise and zoom ante ante also
 ante ante also ante ante also ante and so on ante and so on ante and
 ante ante and ante more ante ante and more ante ante newer ante
 ante newer ante ante better ante ante better and better ante social
 ante better ante ante bonus ante bonus ante ante bonus ante bonus
 ante huge ante ante huge ante ante extra ante ante extra ante ante
 extravaganza ante ante extra ante ante extra ante ante extra extra,
 read all about it.

it remains possible to tell when you are "virtual" and when

{d}

oQ683P4BKKYW3RldgGPfYPUJ9Xlg41vEomI5X5l9fvVpU7WbMaiN38ANfvGYkx5FdBZxLt9TjJt

YpQSskooNXaVp3BCCC0SEW134jVKqGvnzj5orztKwVdDzWpcA2mbTvomY0U76ODmRqBIFjCbXJNQD1

uhh13a6uDEuwEMvwKyfEU6ZXvzed2ekka9LLiRqMgGV8xx9U3mTeku8701tWKez2G83lr

yZDy4wkCjt826gtbLGoHPR3nvMJ1gVIXe8hXnO622iqn8qFgbmTDuTrxY8CGBXbBlky4Fn6

ldKkz8L1kUxTuHEI6OBxB4111ePEkRIOqDA3JxEwg4GSKnrXnxizlwVd6SyNwtUvOWqTlclEM9

BbMhLOoLrFDe5rJJBarlfshYOIWmWN2txSqByXDWE87YtBKLdPtAsx2QwZZtbyRxLDebfHVbDA2IG

Rm2MdHxadBoAxyzVdeV2Dtp2MTIDKhIAA1iw8sEzyBdhFYgj91P3ZFc9o7kNCHepr4ZKtHQq7a9Z0n

SXqhcVwpo0uiZ3BV3vGopY21PBCXzSXs8LRkWMPzOhA7kcKITZf9m5Wvc9pThzAjgeLRyJOfA

bNIFL5ZZJcy4IDDIHtF8ZlInPpyW7uLVm82YCgXBC5VTR8vdYhWaTtVeAgMj9ZHmN3xE9gyGXa

59pAHxpxryzvVXhLA5bOHcARdB1UjcUvIUwRUOKj5cWnwjxbQWiydgernXFzGG6Y4bG27e8EjBzd2NN

oQ683P4BKKYW3RldgGPfYPUJ9Xlg41vEomI5X5l9fvVpU7WbMaiN38ANfvGYkx5FdBZxLt9TjJt

YpQSskooNXaVp3BCCC0SEW134jVKqGvnzj5orztKwVdDzWpcA2mbTvomY0U76ODmRqBIFjCbXJNQD1

uhh13a6uDEuwEMvwKyfEU6ZXvzed2ekka9LLiRqMgGV8xx9U3mTeku8701tWKez2G83lr

yZDy4wkCjt826gtbLGoHPR3nvMJ1gVIXe8hXnO622iqn8qFgbmTDuTrxY8CGBXbBlky4Fn6

ldKkz8L1kUxTuHEI6OBxB4111ePEkOqDA3JxEwg4GSKnrXnxizlwVd6SyNwtUvOWqTlclEM9

BbMhLOoLrFDe5rJJBarlfshYOIWmWN2txSqByXDWE87YtBKLdPtAsx2QwZZtbyRxLDebfHVbDA2IG

Rm2MdHxadBoAxyzVdeV2Dtp2MTIDKhIAA1iw8sEzyBdhFYgj91P3ZFc9o7kNCHepr4ZKtHQq7a9Z0n

SXqhcVwpo0uiZ3BV3vGopY21PBCXzSXs8LRkWMPzOhA7kcKITZf9m5Wvc9pThzAjgeLRyJOfA

bNIFL5ZZJcy4IDDIHtF8ZlInPpyW7uLVm82YCgXBC5VTR8vdYhWaTtVeAgMj9ZHmN3xE9gyGXa

59pAHxpxryzvVXhLA5bOHcARdB1UjcUvIUwj5cWnwjxbQWiydgernXFzGG6Y4bG27e8EjBzd2NN

R0IGODdhZAKcACIAACwAAAAAZAKcAIIAAAD4+PgAAAAAAAAAAAAAAAAAAAAAAD/xi63P4w

ykmrvTjrzbv/YCiOZGmeaKqubOu+cCzPdG3feK7vfO//wKBwSCwaj8ikcsIsOp/QqHRKrVqv

2Kx2y+16v+CweEwum8/otHrNbrvf8Lh8Tq/b7/i8fs/v+/+AgYKDhIWGh4iJiouMjY6PkJES

AJQBIAAMmBOXIZKen6AhmpYbo6OhqKmqDqYLlxWtlpivCpyrt7iHnKekFLauvKe8ucTFelGu

sMm1rJnGz9B0yMy+y73O1tHa22JT15PWw8KZw9zm51Wv6rvltb+ytO6d2ej19oDz9/r7x/z+

/wADChxIsKDBGwgTKlZIsKHDhxAjSpXIsaLFixgzatzIsf+jx48gQ4ocSbKkyZMoU6pcybKI

y5cwY8qcSbOmzZs4c+rcybOnz59AgwodCilfi3g5jCYV1w6DUhdPnUYtgpTopncamjbtNNG

uWApvj7oagEsCa0eyA5RG4Fthqoa3UKQC4LuC7V2P4ituwl1yd56YkSJPERUqyz5h1OTI7x

3F3AFCfuuk6Wu8jiGiz+tU6rY3ljQzeeCtpUvkrxEKNOWV1UY6qnsLqemtfqb5lnU4Jm2fJl3

bNaNe/3uRHwyZtEcMy8bx2wvMGq7N2nGxlt672uamBM2Oz33Y++2wXvXjtxoMO7Cn4un5w25
 +mzZGXu2jDtc9nDUx+dWXP69/u7/yS2HjXZRcXcfYQD+F95c1CEDWX7s9QcOeM5BiJV76IU3
 HIMc4mcdhN8ceKBolr7jIHyscNZhg4L9huBFsTBH4IIGKthWgu2teGKICUYYGlineVPjiVuTZ
 plyPQzaDVzM4Qreek6TMuB+K+Y2IJHYt3vhRjAOyqCGAI5JGoZfVXBffhmOqR+QPI5JHpEW
 llnhjikuKWeX6XF4X3RYQldkdFL2yd+VlbFj2mmzIRZbZ6VdhankcKVYn2zxybeoi3DhNRtk
 hurWmZieTmbLg6wdep6ph8Gy6aOV0veYflrClyulwEXmW2vmWboZolaVdUNgg5X5BrC9FvUr
 DWwRq4Wy/8UqcqEMkfYFarRmUNvstdhmq+223Hbr7bfgHivuuDyAehazF1g7A7rkNtTpgk/q
 BRUQ7La7kljolDvhz3say9C+Ebp2qmkvcbkbaa6uiqz1nLqG7qmfevSeepaeNYVvloYG9F
 uqdxDR9aSWe+E29Uo4Xq9smeipKmjF6OHYrs4YslmwwmofDObGPGJB+soFyTBupvzQydTCXJ
 QTYoc84rfgy0yoIOTTTAnL0m6qdArkqbWBJRtmuXvs62m0gSz01SmYndfbUaR+7ds0pKxH3
 23TXbffdEOet99589+13EOau1bYvQwee1eBLpXjVCNMTnhZjmMMhuGJw5yEkP9pS505zsl6
 3JfHPe9rJ+cnuJWmvE07tUTkwQ4KmDL6lh4W44CD7jng/NZg+uepp7u6Ee181nWt9AVWWXEI
 ozzw1saVctujtyr1dZ7Dy3ro89hpf3YtLYIGWi3M90cq4QHnSn24DO/G8MJO5q9a7NWR06p

L1vtvYnqPow/x83f//7yDYMU5cSmOOoZEFBZeQ+X2hSngwHrTWi6WNZcJSP/OG1pOYMgxyZ0

NBCJrzoYLE8laVSln70sgloCmZFOMl0kksI1HbuZ0+wDO9/gCYUdFEHwIkOqHtJMRzMj1XpO

Z7nObcg+rSnTnh70Jw96yoU/o1nAhmi7JoWKg8lRlgn/b4iplhHHIRKUEXn7ZzHK+MyMUJqS

Go34n0BxrwQ7TGMJ1+i7IibRczskVgwryEA9NQdDVgykX6KYL9xMaouk09juNtY7s8DsSHME

YgM9GEfQHRKGYEzGNOiUrBse8leasyMiXQe/kMUoTESU4R/JUUCqbvA6oXPSnAJJPVLScmRK
 ihllq8hKOfKLZ7skG4IgmUNaGil8QrsTm+Tlpk3y8ldU4iMdd8auTc2qh1y7ULJq073jXQqb
 xPxgqCoFqfVT4sJqW84sVYc6JWTFuRMJ5z8xKlvPotSy/ta1dTHTj6V6p9ho98k6kIQViks
 OPDMJEKJlzt6qpx+wQgQJ/Y/8sfGCaByBJm7P52lItEQkgEJEE44chRFRCoDWqYm/tEOkAO
 3LOk53KcSmFK05ra9KY4zalOd8rTnkKFKXcJXEt1CFRp1QWlk0Nq+Rwx1NWh03aRq2T4Opf
 7ZB0qm/p6EYtSjsyYrWGX/2dDr9QRKtqVXUYxZ1C07pWsM5ODPVih7J2tUuGJJ/bIKV+b4n
 wHe2j3hcuyL4kmdWRdGli+Rz6z4jityFuWz9htsoxj61DcG1noL06hg4wdQTG0mi/gjWACX
 mk3NRnZ4gfVsYidrV4lZbK0lpOHhBlnBL8ZLg4WdZkgjdJFJ+vKQtU0XKn1rW2ZiMbb+PCMh
 AZIDaf+6TrmynSciGdnCSBYXkktL7rKO+VpozpKOUpWRD3W7siTiEZpQ5eFLbwmlq2lWnGsc
 JI3WWT5bzhZjBoUiQZEXEMqzitoJnKhUqMzgQo2hllhwTipzt1wEa7CSIsOtK51hPanZ5cG6
 vKSEahjhYGiRuoJqq3Fvm0Lu+IK/ASYudduT4pF+164kWvBxG+xEDG84abLN7SotGDMPXXio
 d9XwDjFW4EgasJhK83EmnYtLCRsouK9NsQifWd0vmUmUlJtU4nwLJN16l2vkqj12okqMpvZ
 slZK6JjHyeYsQe56/BwoE1OFpjgv9H6o8hgZR+NY0hqHn575rF+/rBp3xnpOe8KLWclFSLH

eFPQf/YrRSft2ZxUrA1KfUamSzbSbmRk0/+aKRlEPZD1+vTUqE61qlfN6la7+tWwpkiWQR1r
bc261jldZ55xfdNb87rXxwQLrX9N7Glb+9jlTrayl83sZjv72dCOtrSnTe1qW/va2M62tu+x
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kldyWzqCfbXsafELqDM5THKrxaxkq9czcc9vs7ji6zKzGL+M/4/PCxvtXxkENulEvMt8bkU5
89dpmKhGPM4k79EctE1efbLKO6tqmBRYygIBk0wF/kqylpcs9OF6b8WLu3kTKbnz0LX8JVB+
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//3wj7/850//+tsfBAKAADs=

FROM:??

FROM::Unknown Sender

FROM: Broken Header

FROM: UNAVAILABLE

TO: ∞



Figure 8.1. The Poet as Psychoanalyst of Automatons

CONCLUSION

Now for the most difficult, and therefore final, questions: How does poetry remediate informational environments? How does it address the issues facing secondary English language arts teachers in schools, or how to teach the arts of English language pedagogy? I hold strongly to the notion presented by two British researchers, Ray Mission and Wendy Morgan (2005; 2006), that the contemporary language arts teachers have the difficult prospect of enhancing and sustaining a cultural environment premised on a critically informed aesthetic—and thus face the most difficult challenge of understanding contemporary discursive practices. Education is where the aesthetic of critical literacy must be engendered; otherwise, the comfortable consumer won't waste a second with it. We will be left with many superficial choices about what we desire, but with very little in the way of substantial, personal values being developed (Dillon, 2006)—the inevitable outcome of what Karen Hamblen (1990) called cash-culture literacy.

Critical aesthetic response to the overwhelming symbolic systems of consumer culture must first and foremost accept the task of working with ambivalence and diversity to trouble the governing myths and archetypes of modern Western society, and to a large extent, global society. The experimental poetic techniques that I propose might be effective in helping students develop aesthetic and creative personal practices to inquire into the conditions of communication and relations of power shaping public life and social ideologies today (Monchinsky, 2008). With this goal in mind, I have attempted to explore the significance of correspondence as a historical practice of cultural exchange threatened by commercial excesses and abuses of networks, ending an age of personal answerability, and ushered in through the automation of networks as sites both of

technological control and resistance (Ngwenyama & Lee, 1997). Creative engagement is an essential component of honing aesthetic and critical perceptions and, above all, it offers particular rewards that although unanswerable to market logics, are nevertheless personally and politically relevant values. To this end I have provided poetic examples of an experimental practice that combines media, language analysis, and poetics, and yet it has no stable subject, no Other to objectify as a function of research, or pedagogy.

The words in the poems are not my own; all of them, in my mind, are gifts, letters from the bot. As in the golden age of letter writers, these texts are made of quotes artificially synthesized. Woven therein were online news bulletins and journals and commentaries, but also repetitive sections of James Joyce's *Ulysses* (2002) and of Dicken's *Oliver Twist* (2002). I take a certain joy in the irony that I have studied some of the finest literature in the English language by looking in the digital trash. I have studied these texts not as a segregated phenomenon of high culture but, instead, as a component of cyberspace's most prolific form of waste, spam email. The poetry I have created using various methods—cut-ups, mesostics, acrostics, and so on, is intensely personal, in so far as I can recognize my own poetic voice therein; and yet, as the so-called author, I feel like one does when conversing in a large, noisy crowd. Voices cut in and out, some agreeable, some not. No subject is sovereign to the conversation, rather the associations move freely, rapidly, ambivalently, collecting in a non-linear narrative that is fugitive, unconstrained, open to suggestion—but consciously so.

The aim is both personal and political, but this mode of poetic scholarship is not concerned with reinstating the rights of the individual, who is, after all, a proprietary creature. As Foucault (Deleuze & Guattari, 2003, p. xiv) reminds us:

Do not demand of politics that it restore the "rights" of the individual, as philosophy has defined them. The individual is the product of power. What is needed is to "de-individualize" by means of multiplication and displacement, diverse combinations. The group must not be the organic bond uniting hierarchized individuals, but a constant generator of de-individualization.

As a post-person I am a restless composite, a fugitive hybrid unified by my aesthetic of literate perception. Governing this aesthetic are my fears and desires, for writing exercises sympathies that guide me in the social use of language and my conceptions of the Other. Bravely and brazenly lodged within that compulsive depth is a poetic apperception, a trained guidance in which language is liberated from the burden of self. Acknowledging the importance placed upon self-realization through education, I suggest that the dissolution of sympathies for the collective self is no small matter.

Fundamentally, these sympathies must intervene instructively through language into public discourse. The lost author who shuffles out of this text is certain to be one of us, you or me, possibly a composite of all of us, a globally networked self digesting the flow of discourse by which we value our lives. This is the only passive way to engage change —gradually, and out of respect for the planetary future. We, and our students, will have many questions about our new, hyper-mediated, networked, automated, and chance-generated reflection. We will need to begin by clearing a productive space for collective growth, and we will have questions about how to proceed, how to educate ourselves to think ethically and critically in this new information environment. Writing from a post-personal perspective, these questions will remain radically open, intentionally free, and systemically ambivalent.

REFERENCES

- Aarseth, E. J. (1997). *Cybertext: Perspective on ergodic literature*. Baltimore: Johns Hopkins University Press.
- Abadi, M., Birrell, A., Burrows, M., Dabek, F., & Wobber, T. (2003, December). *Bankable postage for network services*. Paper presented at the 8th Asian Computing Science Conference, Mumbai, India.
- Adams, T. (2007, August 12). Space to think. *The Observer*, p. 8. Retrieved February 22, 2008, from <http://www.guardian.co.uk/books/2007/aug/12/sciencefictionfantasyandhorror.features>
- Agamben, G. (1998). *Homo sacer: Sovereign power and bare life*. Stanford, CA: Stanford University Press.
- Airoidi, E., & Malin, B. (2004). *ScamSlam: An Architecture for Learning the Criminal Relations Behind Scam Spam*. Pittsburgh, PA: Data Privacy Laboratory, Institute for Software Research International.
- Alexander, J., & Schmidt, J. K. H. W. (1996). Introduction: Social engineering: Genealogy of a concept. In A. Podgorecki, J. Alexander & R. Shields (Eds.), *Social Engineering* (pp. 1-22). Montreal, PQ: McGill-Queen's Press.
- Allen, M. (2007). *Social engineering: A means to violate a computer system* (Report No. 529). Bethesda, MD: The SANS Institute.
- Allen, M. R. (2003). This is not a hypertext, but...: A set of lexias on textuality [Electronic Version]. *ctheory.net*. Retrieved June 20, 2007, from <http://www.ctheory.net/articles.aspx?id=389>
- Alongi, E. A. (2004). Has the U.S. Canned Spam? *Arizona Law Review*, 46, 264-290.
- Alvermann, D. E., Hinchman, K. A., Moore, D. W., Phelps, S. F., & Waff, D. R. (Eds.). (2006). *Reconceptualizing the Literacies in Adolescents' Lives* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Anderson, R. E. (1996). Information sifting or knowledge building on the Internet. *Social Science Computer Review*, 14(1), 81-83.
- Anderson, R. H., Bikson, T. K., Ang Law, S., & Mitchell, B. M. (1995). *Universal access to e-mail: Feasibility and societal implications*. Santa Monica, CA: Rand.
- Androutsopoulos, I., Koutsias, J., Chandrinou, K. V., Paliouras, G., & Spyropoulos, C. D. (2000). *An evaluation of Naive Bayesian anti-spam filtering*. Paper presented at the Workshop on Machine Learning in the New Information Age, 11th European Conference on Machine Learning, Barcelona, Spain.
- Armstrong, N. (1987). *Desire and domestic fiction: A political history of the novel*. New York: Oxford University Press.

- Arnell, J. C. (1986). *Steam and the north Atlantic mails*. Toronto, ON: The Unitrade Press.
- Atkins, R., & Mintcheva, S. (Eds.). (2006). *Censoring culture: Contemporary threats to free expression*. New York and London: The New Press.
- Bakhtin, M. M. (1981). *The dialogic imagination: Four essays* (C. Emerson & M. Holquist, Trans.). Austin, TX: University of Texas Press.
- Bakhtin, M. M. (1984). *Rabelais and his world* (H. Iswolsky, Trans.). Bloomington, IN: Indiana University Press.
- Bakhtin, M. M. (1990). *Art and answerability: Early philosophical essays by M. M. Bakhtin* (M. Holquist, V. Liapunov & K. Brostrom, Trans.). Austin, TX: University of Texas Press.
- Barber, K. (Ed.). (1998). *The Canadian Oxford dictionary*. Don Mills, ON: Oxford University Press.
- Barker, C. (2005). Cybercriminals up ante with phishing and darkmail [Electronic Version]. *ZD Net*, August 02. Retrieved November 30, 2008, from <http://news.zdnet.co.uk/security/0,1000000189,39211676,00.htm>
- Baron, N. S. (1998). Letters by phone or speech by other means: The linguistics of email. *Language & Communications*, 18, 133-170.
- Baron, N. S. (2000). *Alphabet to email: How written English evolved and where it's heading*. London and New York: Routledge.
- Baron, N. S. (2003). Why email looks like speech: proofreading, pedagogy and public face. In J. Aitchison & D. M. Lewis (Eds.), *New media language* (pp. 85-94). London and New York: Routledge.
- Baron, N. S., Field, J., & Schuller, T. (Eds.). (2000). *Social capital: Critical perspectives*. Oxford: Oxford University Press.
- Barracuda Networks. (2007, July). The Barracuda message archiver: Enabling corporate compliance. Retrieved January 20, 2008, from <http://209.85.173.104/search?q=cache:kIeESQjL0GkJ:www.barracudanetworks.com/ns/downloads/>
- Barrell, B. R. C., & Hammett, R. F. (Eds.). (2000). *Advocating change: Contemporary issues in subject English*. Toronto, ON: Irwin Publishing.
- Barthes, R. (1989). *The rustle of language*. Berkeley, CA: University of California Press.
- Bartolovich, C. (2002). The work of cultural studies in the age of transnational production. In J. Williams (Ed.), *Institutions of literature* (pp. 111-152). Albany, NY: State University of New York Press.
- Barton, D. (2007). *Literacy: an introduction to the ecology of written language*. Malden, MA: Blackwell Publishers.
- Barton, D., Hamilton, M., & Ivanič, R. (Eds.). (2000). *Situated literacies: Reading and writing in context*. New York and London: Routledge.
- Bataille, G. (2001). *The unfinished system of nonknowledge* (M. Kendall & S. Kendall,

- Trans.). Minneapolis and London: University of Minnesota Press.
- Baudrillard, J. (1994). *Simulacra and simulation* (S. F. Glaser, Trans.). Ann Arbor, MI: The University of Michigan Press.
- Baudrillard, J. (1999). *Revenge of the crystal: Selected writings on the modern object and its destiny, 1968-1983* (P. Foss & J. Pefanis, Trans.). London and Sterling, VA: Pluto Press.
- Bauman, Z. (2004). *Wasted lives: Modernity and its outcasts*. Cambridge: Polity.
- BBN (Bolt, Berak and Newman). (1981, April). *Arpanet completion report (Report No 4799: r)*
- Beach, C. (1999). *Poetic culture: Contemporary American poetry between community and institution*. Evanston, IL: Northwestern University Press.
- Beale, P. (1998). *A History of the post in England from the Romans to the Stuarts*. Aldershot: Ashgate.
- Becker, C., Crawford, R., & Miller, P. D. (2002). An interview with Paul D. Miller a. k. a.—that Subliminal Kid. *Art Journal*, 61(1), 82-91.
- Beebee, T. O. (2003). Ancient epistolary fictions: The letter in Greek literature, and: Relays, literature as an epoch of the postal system (review). *Comparative Literature Studies*, 40(3), 329-333.
- Benjamin, W. (1968). *Illuminations: Essays and reflections* (H. Zohn, Trans.). New York: Schocken Books.
- Benjamin, W. (1999). *The Arcades Project* (H. Eiland & K. McLaughlin, Trans.). Cambridge, MA: The Belknap Press of Harvard University Press.
- Benjamin, W. (2004). *Walter Benjamin: Selected writings* (Vol. 1, 1913-1926). Cambridge, MA: Harvard University Press.
- Benkler, Y. (2003). The political economy of commons. *Upgrade: The European Journal for the Informatics Professional*, IV(3).
- Bergquist, M. (2003). Open source software development as gift culture: Work and identity formation in an Internet community. In C. Garsten & H. Wolff (Eds.), *New technologies at work: People, screens and social virtuality* (pp. 223-241). Oxford: Berg.
- Berland, J. (2000). Cultural technologies and the "evolution" of technological cultures. In A. Herman & T. Swiss (Eds.), *The Word Wide Web and contemporary cultural theory* (pp. 235-258). London and New York: Routledge.
- Bernays, E. L. (1936). *Propaganda*. New York: H. Liveright.
- Bernays, E. L. (1955). *Engineering of consent*. Norman, OU: University of Oklahoma Press.
- Bernays, E. L. (1961). *Crystallizing public opinion*. New York: H. Liveright.
- Bernstein, B. (1973). *Class, codes and control* (Vol. 2). London and Boston: Routledge & Keegan Paul.
- Bernstein, B. (1975). *Class, codes and control* (Vol. 3). London and Boston: Routledge

& Keegan Paul.

- Bernstein, C. (1986). *Content's dream: Essays 1975-1984*. Los Angeles: Sun & Moon Press.
- Berube. (2002). Peer pressure: Literary and cultural studies in the bear market. In J. Williams (Ed.), *Institutions of literature* (pp. 95-110). Albany, NY: State University of New York Press.
- Betancourt, M. (2007). The valorization of the author [Electronic Version]. *H2*, 10. Retrieved May 30, 2008, from <http://www.h2-journal.org/n10/betancourt.html>
- Block, F. W., & Torres, R. (2007). Poetic transformations in(to) the digital [Electronic Version]. *Poesia Experimental* 2. Retrieved May 29, 2008, from http://po-ex.net/index.php?option=com_content&task=view&id=97&Itemid=31&lang=
- Bohrer, K. H. (1994). *Suddenness: On the moment of aesthetic appearance*. New York: Columbia University Press.
- Bök, C. (2002). The piecemeal bard is deconstructed: Notes toward a potential robopoetics. *Object 10: Cyberpoetics*(Winter), 10-18.
- Bollier, D. (2002). *Silent theft: The private plunder of our common wealth*. New York and London: Routledge.
- Bolter, J. D. (2001). *Writing space: Computers, hypertext, and the remediation of print* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Bootz, P. (2006). Digital poetry: From cybertext to programmed forms. *Leonardo Electronic Almanac*, 14(05-06), 1-10.
- Bosse, M. J. (1972). Introduction. In *The post-man robb'd of his mail or the packet broke open* (pp. 5-8). New York and London: Garland Publishing.
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste* (R. Nice, Trans.). Cambridge, MA: Harvard University Press.
- Bourdieu, P. (1989). *Homo academicus*. Palo Alto, CA: Stanford University Press.
- Bourdieu, P. (1991). *Language and symbolic power* (G. Raymond & M. Adamson, Trans.). Cambridge, MA: Harvard University Press.
- Bourdieu, P. (1993). *The field of cultural production*. New York: Columbia University Press.
- Bourdieu, P., & Passeron, J.-C. (1970). *Reproduction in education, society, and culture*. Beverly Hills, CA: Sage.
- Boureau, A., & Dauphin, C. (1997). *Correspondence: Models of letter-writing from the middle ages to the nineteenth century*. Princeton, NJ: Princeton University Press.
- Boyer, P. S. (2002). *Purity in print: Book censorship in America from the gilded age to the computer age*. Madison, WI: University of Wisconsin Press.
- Boyle, J. (2003). The second enclosure movement and the construction of the public domain [Electronic Version], from <http://www.law.duke.edu/pd/papers/boyle.pdf>

- Boyle, J. (2007). Cultural environmentalism and beyond. *Law & Contemporary Problems*, 70(5), 5-21.
- Braithwaite, A. (2002). The personal, the political, third-wave, and postfeminisms. *Feminist Theory*, 3, 335-344.
- Brand, S. (1987). *The media lab: Inventing the future at MIT*. London: Viking Penguin.
- Bromley, H. (1997). The social chicken and the technological egg: Educational computing and the technology/society divide. *Educational Theory*, 47(1), 51-65.
- Burroughs, W. S. (1961/1992). *The soft machine*. New York: Grove Press.
- Burroughs, W. S. (1964/1992). *Nova express*. New York: Grove Press.
- Burroughs, W. S. (1966). The cut-ups: ubuweb.com.
- Burroughs, W. S. (1967). *The ticket that exploded*. New York: Harcourt Brace.
- Burroughs, W. S. (1972). Bill and Tony [Film]: www.ubuweb.com.
- Burroughs, W. S. (1987/2002). Break through in grey room: Sub Rosa.
- Cage, J. (1966). *Silence: Lectures and writings by John Cage*. Cambridge, MA: The M.I.T. Press.
- Calvino, I. (1986). *The uses of literature*. New York: Harcourt Brace.
- Campbell, R. M. (2002). *The politics of postal transformation: Modernizing postal systems in the electronic and global world*. Montreal and Kingston: McGill-Queens University Press.
- Canter, L. A., & Siegel, M. S. (1995). *How to make a fortune on the Internet superhighway: Everyone's guerrilla guide to marketing on the Internet and other on-line services*. New York: Harper Collins.
- Capurro, R. (2006). Toward an ontological foundation of information ethics. *Ethics and Information Technology*, 8, 175-186.
- CDT (Center for Democracy & Technology). (2003, March). Why am I getting all this spam?: Unsolicited commercial e-mail research six month report [Electronic Version], from <http://www.cdt.org/speech/spam/030319spamreport.shtml>
- Cetina, K. K. (1997). Sociality with objects: Social relations in postsocial knowledge societies. *Theory, Culture & Society*, 14(4), 1-30.
- Chaum, D. L. (1981). Untraceable electronic mail, return addresses, and digital pseudonyms. *Communications of the ACM*, 24(2), 84-90.
- Cherry, C., Halle, M., & Jakobson, R. (1953). Toward the logical description of languages in their phonemic aspect. *Language*, 29, 34-46.
- Christidis, T. (2002). *Poetry and advertising: Principles of communication*. Aachen: Shaker Verlag.
- Cockeyed. (2004, April 7). There are 600,426,974,379,824,381,952 ways to spell Viagra. Retrieved July 19, 2007, from <http://cockeyed.com/lessons/viagra/viagra.html>
- Collins, J. (1989). *Uncommon cultures: Popular culture and post modernism*. Routledge:

- London.
- Collins, J. (2000). Bernstein, Bourdieu and the New Literacy Studies. *Linguistics and Education*, 11(1), 65-78.
- Computer History Museum. (2006). Exhibits: 1970s. Retrieved July 22, 2007, from http://www.computerhistory.org/internet_history/internet_history_70s.shtml
- Controlling the assault of non-solicited pornography and marketing act of 2003 (CAN-SPAM), 15 USC 7701-7713 (2003).
- Cook, E. H. (1996). *Epistolary bodies: Gender and genre in the eighteenth-century republic of letters*. Stanford, CA: Stanford University Press.
- Cooke, K. (2007). One Hundred Years of Postal Processing in Canada. In J. Willis (Ed.), *More than words: Readings in transport, communication and the history of postal communication* (pp. 53-70). Gatineau, PQ: Canadian Museum of Civilization Corporation.
- Cope, B., & Kalantzis, M. (Eds.). (2000). *Multiliteracies: Literacy learning and the design of social futures*. London and New York: Routledge.
- Corbet. (2006). The Grumpy Editor's guide to bayesian spam filters [Electronic Version]. *LWN.net, The Grumpy Editor Series*. Retrieved December 29, 2007, from <http://lwn.net/Articles/172491/>
- Cormack, G., & Lynam, T. (2005). *Spam Corpus Creation for TREC*. Paper presented at the 2nd Conference on Email and Anti Spam CEAS 2005. Retrieved June 19, 2008, from <http://www.ceas.cc/papers-2005/162.pdf>
- Cramer, F. (2001). Digital code and literary text [Electronic Version]. *Beehive*, 4. Retrieved 8/25/08, from http://beehive.temporalimage.com/content_apps43/cramer/oop/html
- Cramer, F. (2005). *Words made flesh: Code, culture, imagination*. Retrieved January 19, 2008, from <http://www.netzliteratur.net/cramer/wordsmadefleshpdf.pdf>
- Crystal, D. (2001). *Language Play*. Chicago: University of Chicago Press.
- Cubitt, S. (2005). Consumer discipline and the work of audiencing. In S. Cohen & R. L. Rutsky (Eds.), *Consumption in an age of information* (pp. 79-97). Oxford and New York: Berg.
- Curtis, A. (Writer) (2002). Century of self. In A. Curtis, L. Kelsall & S. Lambert (Producer). United Kingdom: BBC Four.
- Dahlberg, L. (2001). The Internet and democratic discourse: Exploring the prospects of online deliberative forums extending the public sphere. *Information, Communication & Society*, 4(4), 615-633.
- Danet, B. (2001). *Cyberpl@y: Communicating online*. Oxford and New York: Berg.
- Danvers, J. (2006). *Picturing mind: Paradox, indeterminacy and consciousness in art and poetry*. Amsterdam & New York: Editions Rodopi.
- Daunton, M. J. (1985). *Royal mail: The post office since 1840*. London and Dover: The

Athlone Press.

Davenport, T. H., & Beck, J. C. (2001). *The attention economy: Understanding the new currency of business*. Boston, MA: Harvard Business School Press.

David, M. E. (2002). *Personal and political: Feminisms, sociology, and generations of family lives in the 'knowledge economy'*. Paper presented at the AARE International Education Research Conference. Retrieved January 19, 2008, from <http://www.aare.edu.au/02pap/dav02054.htm>

Debord, G. (1995). *The society of the spectacle* (G. Nicholson-Smith, Trans.). Brooklyn, NY: Zone Books.

Defense Advanced Research Projects Agency. (2008). *Britannica Online Encyclopædia* from <http://www.britannica.com/EBchecked/topic/745612/Defense-Advanced-Research-Projects-Agency>

Degh, L. (1994). *American folklore and the mass media*. Bloomington and Indianapolis: Indiana University Press.

Deleuze, G., & Guattari, F. (2003). *Anti-Oedipus: Capitalism and schizophrenia* (R. Hurley, M. Seem & H. R. Lane, Trans.). Minneapolis, MI: University of Minnesota Press.

Derrida, J. (1970). Structure, sign, and play in the discourse of the human sciences. In R. Macksey & E. Donato (Eds.), *The structuralist controversy: The languages of criticism and the sciences of man* (pp. 247-265). Baltimore and London: The Johns Hopkins University Press.

Derrida, J. (1980). *Writing and difference* (A. Bass, Trans.). Chicago and London: University of Chicago Press.

Derrida, J. (1987). *The post card: From Socrates to Freud and beyond*. Chicago: University of Chicago Press.

Desan, P., Ferguson, P. P., & Griswold, W. (Eds.). (1989). *Literature and social practice*. Chicago and London: University of Chicago Press.

Dickens, C. (2002). *Oliver Twist*. London: Dover.

Dickinson, E. (1960). He told a homely tale. In T. H. Johnson (Ed.), *The complete poems of Emily Dickinson* (pp. 373-374). Garden City, NY: Doubleday & Company.

DigiTar. (2008). Sentinel Messaging: Anti-Spam/Anti-Phishing. Retrieved July 21, 2008, 2008, from http://www.digitar.com/learn/dtar_sms_details_as.php

Dillon, T. W., & Thomas, D. S. (2006). Knowledge of privacy, personal use, and administrative oversight of office computers and e-mail in the workplace. *Information Technology, Learning, and Performance Journal*, 24(2), 23-34.

Douglas, J. Y. (2001). *The end of books—or books without end?: Reading interactive narratives*. Ann Arbor, MI: University of Michigan Press.

Douglas, M. (1970). *Purity and danger: An analysis of the concept of purity and taboo*. New York: Penguin.

Drate, S. (2003). *Foundation: Transforming found objects into digital assemblage*. New

- York: Watson-Guptill Publications.
- Dubois, J., & Durand, P. (1989). Literary field and classes of texts. In P. Desan, P. P. Ferguson & W. Griswold (Eds.), *Literature and social practice*. Chicago and London: University of Chicago Press.
- Duff, A. S. (2005). Social engineering in the information age. *The Information Society*, 21, 67-71.
- Dwork, C., & Naor, M. (1993). Pricing via processing or combating junk mail. In E. Brickell (Ed.), *Advances in Cryptology—Crypto 1992: Lecture Notes in Computer Science* (Vol. 740). New York: Springer Verlag.
- Dyson, R. A. (2000). *Mind abuse: Media violence in an information age*. Montreal and New York: Black Rose Books.
- Eberwein, J. D. (2000, February). Emily Dickinson's life [Electronic Version]. *Modern American Poetry: An Online Journal and Multimedia Companion to Anthology of Modern American Poetry*. Retrieved June 22, from http://www.english.uiuc.edu/maps/poets/a_f/dickinson/bio.htm
- Egoff, S. A. (1988). *Worlds within: Children's fantasy from the Middle Ages to today*. Chicago and London: American Library Association.
- Enzensberger, C. (1972). *Smut: An anatomy of dirt* (S. Morris, Trans.). New York: Continuum.
- Fallows, D. (2003). Spam: How it is hurting email and degrading life on the Internet. *Pew Internet and American Life Project*. Retrieved February 12, 2008, from <http://www.pewinternet.org/>
- Feenberg, A. (1992). Subversive rationalization: Technology, power, democracy. *Inquiry*, 35(3), 301-322.
- Fine, B. (2002). They f**k you up those social capitalists. *Antipodes*, 34(4), 796-799.
- Fisk, M. (1980). *Ethics and society: A Marxist interpretation of value*. Brighton: Harvester Press.
- Forrest, B. (2006). The sleazy life and nasty death of Russia's spam king. *Wired*, 14(08), 1-3.
- Foucault, M. (1977). The place of the author. In D. F. Bouchard (Ed.), *Language, counter-memory, practice: Selected essays and interviews* (pp. 113-138). Ithaca, NY: Cornell University Press.
- Foucault, M. (1991). *Discipline and punish: The birth of the prison* (A. Sheridan, Trans.). New York: Random House.
- Franklin, U. M. (1990). *The real world of technology*. Toronto, ON: Anansi.
- Freeman, E., Freeman, E., Sierra, K., & Bates, B. (2004). *Head first design patterns*. Sebastapol, CA: O'Reilly Media.
- Freire, P. (1989). *Pedagogy of the oppressed*. New York: Continuum.

- Freire, P. (2004). *Pedagogy of hope: Reliving pedagogy of the oppressed*. New York: Continuum.
- Freud, S. (1920). *General introduction to psychoanalysis* (G. S. Hall, Trans.). New York: Horace Liveright.
- Freud, S. (1989). *Civilization and its discontents* (J. Strachey, Trans.). New York: W. W. Norton & Company.
- Freud, S. (1996). *The essays on the theory of sexuality* (J. Strachey, Trans.). New York: Basic Books.
- Frow, J. (2003). Invidious distinction: Waste, difference, and classy stuff. In G. Hawkins & S. Muecke (Eds.), *Culture and waste: The creation and destruction of value* (pp. 25-38). Lanham, Boulder, New York, Oxford: Rowman & Littlefield Publishers.
- Frucci, A. (2008, June 27). Wall-E Review: One of the best sci-fi movies in years, disguised as a cartoon. Retrieved July 19, 2008, from <http://gizmodo.com/5020237/wall-e-review-one-of-the-best-sci-fi-movies-in-years-disguised-as-a-cartoon>
- FTC (Federal Trade Commission). (2003, April 30). *False claims in spam: A report by the FTC's division of marketing practices*. Retrieved from <http://www.ftc.gov/bcp/online/edcams/spam/reports.htm>.
- Fuller, W. E. (2003). *Morality and the mail in nineteenth-century America*. Urbana and Chicago: University of Illinois Press.
- Funkhouser, C. T. (2007). *Prehistoric digital poetry: An archeology of forms 1959-1995*. Tuscaloosa, AL: The University of Alabama Press.
- Gage, D. (2008, July 01). McAfee study takes surfers to depths of spam. *San Francisco Chronicle*. Retrieved July 8, 2008, from <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/07/01/MNFH11HHOU.DTL>
- Gantz, J. F. (2008, March). The expanding digital universe: An updated forecast of worldwide information growth through 2011: An IDC White Paper - sponsored by EMC. Retrieved May 20, 2008, from <http://www.emc.com/leadership/digital-universe/expanding-digital-universe.htm>
- Gates, B. (2003, November 24). A spam-free future. *The Washington Post*, p. A 21. Retrieved January 06, 2008, from <http://www.washingtonpost.com/ac2/wp-dyn/A9093-2003Nov23>
- Gaudin, S. (2005, February 06). SpamAssassin takes top anti-spam honors. Retrieved August 07, 2008, from <http://itmanagement.earthweb.com/secu/article.php/3481971>
- Gaudin, S. (2007, September 18). Stormworm botnet more powerful than top computers [Electronic Version]. *Information Week*. Retrieved October 14, 2007, from <http://www.informationweek.com/showArticle.jhtml;jsessionid=K2GFQMUBNUXR0QSNDLRSKHSCJUNN2JVN?articleID=201804528>
- Gaztambide-Fernandez, R. A. (2008). The artist in society: Understandings, expectations,

- and curriculum implications. *Curriculum Inquiry*, 38(3), 233-265.
- Geist, M. (2008, May 19). Senator's anti-spam bill is welcome news [Electronic Version]. *thestar.com*. Retrieved June 13, 2008, from <http://www.thestar.com/sciencetech/article/427246>
- Gildon, C. (1972). *The post-man robb'd of his mail or the packet broke open*. New York and London: Garland.
- Gilles, D. J. (1990). Technological determinism in Canadian telecommunications: Telidon technology, industry and government. *Canadian Journal of Communication*, 15(2), 1-15.
- Gillespie, T. (2007). *Wired shut: Copyright and the shape of digital culture*. Cambridge: The MIT Press.
- Giroux, H. (2006). *Stormy Weather: Katrina and the politics of disposability*. Boulder, CO: Paradigm.
- Giroux, H. (2007). Youth and the politics of disposability: Resisting the assault on education and American youth. *Civil Disobedience*, (Winter), 1-31.
- Giroux, H. (2008, March 14). Youth and the politics of disposability: Critical education in the new gilded age, *Figures in creative pedagogy*: The Paulo and Nita Freire International Project for Critical Pedagogy.
- Gitlin, T. (2002). *Media unlimited: How the torrent of images and sounds overwhelms our lives*. New York: Henry Holt and Company.
- Glasner, J. (2001). A Brief History of SPAM, and Spam [Electronic Version]. *Wired*. Retrieved May 10, 2008, from <http://www.wired.com/techbiz/media/news/2001/05/44111>
- Glazier, L. P. (2001). *Digital poetics: The making of e-poetries*. Tuscaloosa, AL: University of Alabama Press.
- Godzich, W. (1985). Introduction: M. M. Bakhtin/P.N. Medvedev. In *The formal method of literary scholarship: A critical introduction to sociological poetics* (pp. xv-xxx). Cambridge, MA: Harvard University Press.
- Goldhaber, M. H. (1997). The attention economy and the net [Electronic Version]. *First Monday*, 2, from http://www.firstmonday.org/issues/issue2_4/goldhaber/
- Goldsmith, K. (2008). Conceptual poetics [Electronic Version]. *Sibila - An international journal of poetry*, 86. Retrieved August 22, 2008, from <http://www.sibila.com.br/sIbyl86conceptualpoetics.html>
- Goodin, D. (2007, April 10). Trial in 419-related murder under way: Nigerian scam claims another life [Electronic Version]. *The Register*. Retrieved July 22, 2008, from http://www.theregister.co.uk/2007/04/10/nigerian_murder_trial/
- Goodman, D. (2004). *Spam wars: Out last best chance to defeat spammers, scammers & hackers*. New York: Select Books.
- Gostev, A. (2008). Monthly malware statistics for July 2008 [Electronic Version].

- Viruslist.com, July*. Retrieved August 04, 2008, from <http://www.viruslist.com/en/analysis?pubid=204792014>
- Graham, E. L. (2002). *Representations of the post/human: Monsters, aliens and others in popular culture*. New Brunswick, NJ: Rutgers University Press.
- Graham, P. (2002). A plan for spam. Retrieved February 01, 2008, from <http://www.paulgraham.com/spam.html>
- Graham, P. (2003). *Better Bayesian Filtering*. Paper presented at the MIT Spam Conference. Retrieved February 02, 2008, from <http://www.paulgraham.com/better.html>
- Graham, P. (2006). *Hypercapitalism: New media, language, and social perceptions of value*. New York: Peter Lang.
- Greenspan, R. (2002, July 10). Porn Spam on the Rise [Electronic Version]. *ClickZ*. Retrieved July 18 2007, from <http://www.clickz.com/ShowPage.html?page=1383001>
- Grimes, G. A. (2006). Online behaviors affected by spam. *Social Science Computer Review*, 24(4), 507-515.
- Grimes, G. A., Hough, M. G., & Signorella, M. L. (2007). Email end users and spam: relations of gender and age group to attitude and actions. *Computers in Human Behavior*, 23(1), 318-332.
- Gudkova, D. (2008, February 26). Kaspersky security bulletin 2007: Spam report. Retrieved June, 29, 2008, from <http://www.viruslist.com/en/analysis?pubid=204791988#9>
- Gudkova, D. (2008, September 24). Spam evolution: January-June 2008. Retrieved October 3, 2008, from <http://www.viruslist.com/en/analysis?pubid=204792033#2>
- Gurak, L. J., & Silker, C. M. (2002). Technical communication research in cyberspace. In L. J. Gurak & M. M. Lay (Eds.), *Research in technical communication* (pp. 229-248). Westport, CT: Greenwood Publishing Group.
- Gutmann, P. (2007). World's most powerful supercomputer goes online [Electronic Version]. *Full Disclosure*. Retrieved December 21, 2007, from <http://seclists.org/fulldisclosure/2007/Aug/0520.html>
- Haas, J. (2004, March 24). Defeating spam: Why SPF instead of E-Postage? *NOW Magazine*.
- Hamblen, K. A. (1990). Beyond the aesthetic of cash-culture literacy. *Studies in Art Education*, 31(4), 216-225.
- Hambridge, S., & NWG. (1995). RFC 1855 - Netiquette Guidelines (Publication. Retrieved May 01, 2008, from The Internet Engineering Task Force: <http://www.ietf.org/rfc/rfc1855.txt>
- Hansell, S. (2004). Technology; speech by Gates lends visibility to e-stamp in war on spam. *The New York Times*. Retrieved January 24, 2008,

- Haraway, D. (1991). The actors are cyborgs, nature is coyote, and the geography is elsewhere: Postscript to 'Cyborgs at Large.' In C. Penley & A. Ross (Eds.), *Technoculture* (pp. 21-27). Minneapolis: University of Minnesota Press.
- Haraway, D. (2003). *The companion species manifesto: Dogs, people, and significant otherness*. . Chicago: Prickly Paradigm Press.
- Harris, D. (2003). Drowning in Sewage: SPAM, the curse of the new millennium: An overview and white paper [Electronic Version], 41. Retrieved August 01, 2008, from <http://www.spamhelp.org/articles/Drowning-in-sewage.pdf>
- Hartman, C. O. (1996). *Virtual muse: Experiments in computer poetry*. Hanover, NH: Wesleyan University Press.
- Hauben, M. *Behind the net: The untold story of the ARPANET or—the 'open' history of the ARPANET/Internet* Retrieved October 13, 2007, from <http://www.dei.isep.ipp.pt/-acc/docs/arpa--1.html>
- Hauben, M., & Hauben, R. (1997). *Netizens: On the story and impact of Usenet and the Internet*. Los Alamitos, CA: IEEE Computer Society Press.
- Hedley, S. (2006). A brief history of spam. *Information & Communications Technology Law*, 15(3), 223-238.
- Heidegger, M. (1975). *Poetry, language, thought* (A. Hofstadter, Trans.). New York: Harper and Row.
- Heim, M. (1999). The cyberspace dialectic. In P. Lunenfeld (Ed.), *The digital dialectic: New essays on new media* (pp. 24-45). Cambridge, MA: The MIT Press.
- Henkin, D. M. (2006). *The postal age: The emergence of modern communications in nineteenth-century America*. Chicago and London: The University of Chicago Press.
- Hill, R. (1837). *Post office reform: Its importance and practicability* (2nd ed.). London: Charles Knight.
- Himma, K. E. (2007). The concept of information overload: A preliminary step in understanding the nature of a harmful information-related condition. *Ethics and Information Technology*, 9, 259-272.
- Hine, C. (2005). *Virtual methods: Issues in social research on the Internet*. Oxford: Berg.
- Hobbes, R. (2006). Hobbes Internet Timeline v8.2. Retrieved December 20, 2007, from <http://www.zakon.org/robert/internet/timeline/>
- Höflich, J. R., & Gebhardt, J. (2005). Changing cultures of written communication: Letter—e-mail—SMS. In R. Harper, L. Palen & A. Taylor (Eds.), *The inside text: Sacred, cultural and design perspectives* (Vol. 4). Netherlands: Springer.
- Hofstadter, D. R. (1999). *Gödel, Escher, Bach: An eternal golden braid* (Twentieth-anniversary ed.). New York: Basic Books.
- Hogan, D. (1989). The market revolution and disciplinary power: Joseph Lancaster and the psychology of the early classroom system. *History of Education Quarterly*,

- 29(3), 381-417.
- Holden, S. (2004). Spam Filtering II [Electronic Version]. *web.archive.org*. Retrieved December 30, 2007, from <http://web.archive.org/web/20050307062526/http://sam.holden.id.au/writings/spam2/>
- Hormel. (2007). Practically an institution. Retrieved December 27, 2007, from <http://www.hormelfoods.com/brands/spam/>
- Howell, S. L. (1999). Knowledge and power: The learning organization: Recovery of control. In J. L. Kincheloe, S. Steinberg & P. H. Hinchley (Eds.), *The post-formal reader: Cognition and education* (pp. 206-222). New York and London: Falmer Press.
- Huxley, A. (1998). *Brave new world*. New York: Harper Collins.
- Jacoby, S. (2008). *The age of American unreason*. New York: Pantheon.
- Jakobson, R. (1992). *My futurist years*: (S. Rudy, Trans.). New York: Marsilio Publishers.
- James, K. (2004). The fugitive press out west: Publishing in the public domain. *Open Letter*, 12(4), 27-37.
- James, K. (2007). Poetic terrorism and the politics of spoken word. *Canadian Theater Review*, 130, 38-42.
- JOC/EFR. (August, 2006). Andrei Andreyevich Markov. Retrieved July 22, 2008, 2008, from <http://www.history.mcs.st-andrews.ac.uk/Biographies/Markov.html>
- John, R. (1995). *Spreading the news: The American postal system from Franklin to Morse*. Cambridge, MA: Harvard University Press.
- Johnston, D. (2002). Programming as poetry: A few brief musings on Antiorp, Kurzweil, Stallman [Electronic Version]. *Year 01 Forum*, 5. Retrieved January 19, 2007, from http://www.year01.com/issue10/programmer_poet.html
- Joris, P. (2003). *A nomadic poetics: Essays*. Hanover, NE: Wesleyan University Press.
- Joyce, J. (2002). *Ulysses*. New York: Random House.
- Kaplan, N. (2000). Literacy bond books: Reading when all the world's a web. In A. Herman & T. Swiss (Eds.), *The World Wide Web and contemporary cultural theory* (pp. 207-234). New York and London.
- Kaufman, R. (2002). Aura, still. *October Magazine*, 99(Winter), 45-80.
- Kazienko, P., & Musial, K. (2008). Mining personal social features in the community of email users. In *SOFSEM 2008: Theory and practice of computer science* (Vol. 4910/2008, pp. 708-719). Heidelberg: Springer Berlin.
- Kennedy, G. (2007). *An ontology of trash: The disposable and its problematic nature*. Albany: State University of New York Press.
- Khmelev, D. V. (2000). Disputed authorship resolution through using relative empirical entropy for Markov chains of letters in human language texts. *Journal of*

- Quantitative Linguistics*, 7(3), 201-207.
- Kielbowicz, R. B. (1989). *News in the mail: The press, post office, and public information, 1700-1860s*. New York: Greenwood Press.
- Kielbowicz, R. B. (2007). Testing the boundaries of postal enterprise in the U.S. free-market economy 1880-1920. In J. Willis (Ed.), (pp. 85-100). Gatineau, PQ: Mercury Press.
- Kincheloe, J. (1997). Fiction formulas: Critical constructivism and the representation of reality. In W. G. Tierney & Y. S. Lincoln (Eds.), *Representation and the text: Re-framing the narrative voice* (pp. 57-80). Albany, NY: State University of New York Press.
- King, R. (Ed.). (1996). *Computers and controversy: Value conflicts and social choices* (2nd ed.). San Diego, CA: Academic Press.
- Kittross, J. M., & Gordon, A. D. (2003). The academy and cyberspace ethics. *Journal of Mass Media Ethics*, 18(3 & 4), 286-307.
- Klapp, O. E. (1986). *Overload and boredom: Essays on the quality of life in the information society*. New York and London: Greenwood Press.
- Kleinrock, L. (1972). *Communication nets: Stochastic message flow and delay*. New York: Dover.
- Knechtel, J. (Ed.). (2007). *Trash*. Cambridge, MA: The MIT Press.
- Kostelanetz, R. (Ed.). (1980). *Text-sound texts*. New York: William Morrow and Company.
- Kreibich, C., Kanich, C., Levchencko, K., Enright, B., Voelker, G. M., Paxson, V., et al. (2008). *On the spam campaign trail*. Paper presented at the First USENIX Workshop on Large-Scale Exploits and Emergent Threats (LEET08), Berkeley, CA.
- Kress, G. (2003). *Literacy in the new media age*. London and New York: Routledge.
- Kressler, A., & Bergs, A. (2003). Literacy and the new media: *vita brevis, lingua brevis*. In J. Aitchison & D. M. Lewis (Eds.), *New media language* (pp. 75-84). London and New York: Routledge.
- Kroeker, A., & Weinstein, A. (1994). *Data trash: The theory of the Virtual Class*. New York: Saint Martin Press.
- Krug, G. (2005). *Communication, technology and cultural change*. London and Thousand Oaks, CA: Sage.
- Kurzweil, R. (1999). *The age of spiritual machines: When computers exceed human intelligence*. New York: Viking.
- Landow, G. P. (1997). *Hypertext: The convergence of contemporary critical theory and technology*. Baltimore: The Johns Hopkins University Press.
- Lanham, R. A. (2006). *The economics of attention: Style and substance in the age of information*. Chicago and London: The University of Chicago Press.

- Lansdown, J. (2001). Artificial creativity: An algorithmic approach to art [Electronic Version]. *pixxelpoint*, edition 2001, 19 paragraphs. Retrieved July 26, 2007, from <http://www.pixxelpoint.org/2001/article-00.html>
- Latour, B. (1992). Where are the missing masses? The sociology of a few mundane artifacts. In W. E. Bijker & J. Law (Eds.), *Shaping technology / building society: Studies in sociotechnical change* (pp. 225-258). Cambridge, MA: MIT Press.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Lazer, H. (1996). *Opposing poetics: Issues and institutions* (Vol. 1). Evanston, IL: Northwestern University Press.
- Le Bon, G. (1967). *The crowd: A study of the popular mind*. New York: The Viking Press.
- Lee, H., & Ng, A. Y. (2005). *Spam Deobfuscation using a Hidden Markov Model*. Paper presented at the Fifth Conference on Email and Anti-Spam. Retrieved June 23, 2008, from <http://www.ceas.cc/papers-2005/166.pdf>
- Lee, T. M. L. (2007). Rethinking the personal and the political: Feminist activism and civic engagement. *Hypatia: A Journal of Feminist Philosophy*, 22(4), 163-179.
- Lemke, J. (1995). *Textual politics: Discourse and social dynamics*. London: Taylor and Francis.
- Lemke, J. (1998). Metamedia literacy: Transforming meanings and media. In D. Reinking, M. C. McKenna, L. P. Labbo & R. D. Kieffer (Eds.), *Handbook of literacy and technology* (pp. 283-301). Mahwah, NJ: Erlbaum.
- Leslie, E. (2002). *Hollywood flatlands: Animation, critical theory and the avant-garde*. London: Verso.
- Lessig, L. (1998). The New Chicago School. *The Journal of Legal Studies*, 27(52), 661-591.
- Lessig, L. (2004). *Free culture: How big media uses technology and law to lock down culture and control creativity*. New York: Penguin Press.
- Leu, D. J., Kinzer, C. K., Coiro, J., & Cammack, D. (2004). Toward a theory of new literacies emerging from the internet and other information and communication technologies. In R. B. Ruddell & N. Unrau (Eds.), *Theoretical models and processes of reading* (5th ed.). Newark, DE: International Reading Association.
- Licklider, J. C. R. (1960, March). Man-Computer Symbiosis [Electronic Version]. *IRE Transactions on human factors in electronics, HFE-1*, 4-11, from <http://groups.csail.mit.edu/medg/people/psz/Licklider.html>
- Licklider, J. C. R., & Taylor, R. W. (1968). The computer as a communication device. *Science and Technology*, 76, 21-31.
- Licklider, J. C. R., & Vezza, A. (1978). Applications of information networks. *Proceedings of the IEEE*, 66(11), 1330-1346.
- Link, D. (2006a). Chains to the West: Markov's theory of connected events and its

- transmission to Western Europe. *Science in Context*, 19(4), 361-389.
- Link, D. (2006b). Traces of the mouth: Andrei Andreyevich Markov's mathematization of writing. *History of Science*, 44(145), 321-348.
- Link, D. (2007). There must be an angel: On the beginnings of the arithmetics of rays. Retrieved May 30, 2008, from http://alpha60.de/research/muc/DavidLink_RadarAngels_EN.htm
- Locke, J. L. (1998). *Why we don't talk to each other anymore: The de-voicing of society: How email, voice mail, the Internet, and technomania are making us into a society of strangers* (Touchstone ed.). New York: Simon & Schuster.
- Lowd, D., & Meek, C. (2005). *Good word attacks on statistical spam filters*. Paper presented at the Fifth Conference on Email and Anti-Spam. Retrieved March 12, 2008, from <http://www.ceas.cc/papers-2005/125.pdf>
- Lucke, K. (1997). The Breidbart Index definition & spam threshold FAQ. *stopspam.org* Retrieved May 14, 2008, from <http://www.stopspam.org/usenet/mmf/breidbart.html>
- Lutz, T. (1959). Stochastic texts [Electronic Version]. *Augenblick*, 4, 3-9. Retrieved July 24, 2008, from http://www.stuttgarter-schule.de/lutz_schule_en.htm
- Lyman, J. (2004). ISPs consider digital stamps to fight spam [Electronic Version]. *E-Commerce Times*. Retrieved January 6, 2008, from <http://www.ecommercetimes.com/story/32760.html>
- Lyons, M. (1999). Love letters and writing practices: On ecritures intimes in the nineteenth century. *Journal of Family History*, 24, 232-239.
- Macherey, P. (2006). *A theory of literary production* (G. Wall, Trans.). London and New York: Routledge.
- MacLow, J. (2008). *Thing of beauty: New and selected works*. Berkeley & Los Angeles: University of California Press.
- Malkin, G. S. (1992). RFC 1336: Who's who in the internet: Biographies of IAB, IESG and IRSG members. Retrieved March 01, 2008, from Network Working Group: <http://www.unix.com.ua/rfc/rfc1336.html>
- Manovich, L. (2003). The complex, the changing, and the indeterminate. In N. Wardrip-Fruin & M. Crumpton (Eds.), *The new media reader* (pp. 28-189). Cambridge, MA: The MIT Press.
- Markatos, E., & Keromytis, A. (2006). *Next generation attacks on the Internet*. Paper presented at the EU-US Summit Series on Cyber Trust: Workshop on System Dependability & Security.
- Markoff, J. (2007, March 19). Researchers track down a plague of fake web pages. *The New York Times*. Retrieved January 06, 2008, from <http://www.nytimes.com/2007/09/29/technology/19spam.html>
- Markov, A. A. (1913 / 2006a). An example of statistical investigation of the text Eugene Onegin concerning the connection of samples in chains. *Science in Context*, 19(4),

591-600.

- Markov, A. A. (1913 / 2006b). On a remarkable case of samples connected in a chain: Appendix on the statistical investigation of a text by Aksakov. *Science in Context*, 19(4), 600-604.
- Markus, G. (1995). *The dustbin of history*. Cambridge, MA: Harvard University Press.
- McAfee. (2008). The S.P.A.M. Experiment. Retrieved July 08, 2008, from <http://www.mcafeespamexperiment.com/>
- McCaffery, S., & Nichol, b. (1992). *Rational geomancy: The kids of the book-machine: The collected research reports of the Toronto Research Group 1973-1982*. Vancouver, BC: Talon Books.
- McGovern, G. (2000). The three properties of information: Content - Structure - Publication. In A. Scammell (Ed.), *i in the sky: Visions of the information future* (pp. 177-184). Chicago and London: Fitzroy Dearborn Publishers.
- McWilliams, B. (2004). *Spam Kings: The real story behind the high-rolling hucksters pushing porn, pills, and %*@)# enlargements*. Sebastopol: O'Reilly Media.
- Memmott, T. (2001). E_RUPTURE://Codework". "Serration in Electronic Literature. *American Book Review*, 22(6), 1-6.
- Menzies, H. (1989). *FastForward and out of control: How technology is changing your life*. Toronto, ON: Macmillan.
- Miller, P. D. (2004). *Rhythm science*. Cambridge, MA: The MIT Press.
- Milne, E. (2002). The epistolary body of email: Presence, disembodiment and the sublime. *Southern Review: Communication, Politics & Culture*, 35(3), 80-93.
- Milne, E. (2003). Email and epistolary technologies: Presence, intimacy, disembodiment. *Fiberculture*(2), 1-14.
- Miniwatts Marketing Group (MMG). (2008, September 21). Internet usage statistics: The Internet big picture. Retrieved September 26, 2008, from <http://www.internetworldstats.com/stats.htm>
- Mission, R., & Morgan, W. (2006). *Critical literacy and the aesthetic: Transforming the English classroom*. Urbana, IL: National Council of Teachers of English.
- Monahan, G. E. (1982). A survey of partially observable Markov decision processes: Theory, models, and algorithms. *Management Science*, 28(1), 1-16.
- Monchinsky, T. (2008). Critical pedagogy and the everyday classroom. *Critical Pedagogy*, 3, 1-42.
- Moore, A. E. (2007). *Unmarketable: Brandalism, copyfighting, mocketing, and the erosion of integrity*. New York and London: The New Press.
- Morgan, R. (2000). Uncertain relations: English and cultural studies. In B. R. C. Barrell & R. F. Hammett (Eds.), *Advocating change: Contemporary issues in subject English* (pp. 14-34). Toronto, ON: Irwin Publishing.
- Morgan, W., & Mission, R. (2005). Beyond the pleasure principle? Confessions of a critical

- literacy teacher. *English in Australia*(144), 17-25.
- Morrell, E., & Duncan-Andrade, J. M. R. (2002). Toward a critical classroom discourse: Promoting academic literacy through engaging hip-hop culture with urban youth. *English Journal*, 91(6), 88-94.
- Morris, A., & Swiss, T. (Eds.). (2007). *New media poetics: Contexts, technotexts, and theories*. Cambridge, MA: The MIT Press.
- Moscovici, S. (1989). *The Age of the Crowd: A historical treatise on mass psychology* (J. C. Whitehouse, Trans.). Cambridge: Cambridge University Press.
- Moser, W. (2002). The acculturation of waste. In B. Neville & J. Villeneuve (Eds.), *Waste-site stories: The recycling of memory* (pp. 85-106). Albany, NY: State University of New York Press.
- Moser, W. (2007). Garbage and recycling: From literary theme to mode of production [Electronic Version]. *Other Voices*, 3, 1-17, from <http://www.othervoices.org/3.1/wmoser/index.php>
- Motte, W. F. (Ed.). (1986). *Oulipo: A primer of potential literature*. Lincoln and London: University of Nebraska Press.
- Mueller, W. J., & Aniskiewicz, A. S. (1986). *Psychotherapeutic intervention in hysterical disorders*. Northvale, NJ: Jason Aaronson.
- Muller, J. P., & Richardson, W. J. (Eds.). (1987). *The purloined Poe: Lacan, Derrida, and psychoanalytic reading*. Baltimore, MD: The Johns Hopkins University Press.
- Mumford, L. (1986). *The future of technics and civilization*. London: Freedom Press.
- Murphie, A., & Potts, J. (2003). *Culture and technology*. New York: Palgrave Macmillan.
- Ngwenyama, O. K., & Lee, A. S. (1997). Communication richness in electronic mail: Critical social theory and the contextuality of meaning. *MIS Quarterly*, 21(2), 145-167.
- Nielsen, G. M. (2002). *The norms of answerability: Social theory between Bakhtin and Habermas*. Albany: State University of New York Press.
- Noam, E. M. (1987). The public telecommunications network: A concept in transition. *The Journal of Communication*, 37(1), 30-48.
- Nummelin, J. (2004a). *Corporation near class*. Retrieved October 18, 2007, from <http://www.nokturno.org/juri-nummelin/>
- Nummelin, J. (2004b). *All data will be destroyed! A book of spam poetry*. Retrieved October 18, 2007, from <http://www.nokturno.org/juri-nummelin/>
- Oard, D., & Marchionini, G. (1997). The state of the art in text filtering. *User Modeling and User Adapted Interaction*, 7(3), 141-178.
- Olson, G. M., & Olson, J. S. (2003). Human-computer interaction: Psychological aspects of the human use of computing. *Annual Review of Psychology*, 54, 491-516.

- Oravec, J. A. (1996). *Virtual individuals, virtual groups: Human dimensions of groupware and computer networking*. Cambridge: Cambridge University Press.
- Orlowski, P. (2006). Educating in an era of Orwellian spin: Media literacy in the classroom. *Canadian Journal of Education*, 29(1), 176-198.
- Orr, D. (1992). *Ecological literacy: Education and the transition to a postmodern world*. Albany: State University of New York Press.
- Orwell, G. (1977). *Nineteen eighty-four: A novel*. New York: Penguin Books.
- Padlipsky, M. A. (2000). "And They Argued All Night..."...over whose claim was right: first at which, and for what, and with whom [Electronic Version]. *Matrix News*. Retrieved May 30, 2008, from <http://www.lafn.org/~ba213/allnight.html>
- Paganini, M. (2003). A. Realtime blackhole lists. *ASK: Active Spam Killer*. Retrieved January 19, 2007, from http://www.usenix.org/events/usenix03/tech/freenix03/full_papers/paganini/paganini_html/node8.html
- Pantel, P., & Lin, D. (1998). *SpamCop: A spam classification & organization program*. Paper presented at The Association for the Advancement of Artificial Intelligence Workshop on Learning for Text Categorization, Menlo Park, California.
- Parrish, K. (2001). *How we became automatic poetry generators: It was the best of times, it was the blurst of times*. Retrieved April 01, 2007, from www.ubu.com/papers/object/07_parrish.pdf
- Partridge, C. (2008). The technical development of Internet email. *IEEE Annals of the History of Computing*, 30(2), 3-29.
- Paulson, W. R. (1988). *The noise of culture: Literary texts in a world of information*. Ithaca, NY: Cornell University Press.
- Perloff, M. (2004). *Differentials: Poetry, poetics, pedagogy*. Tuscaloosa, AL: The University of Alabama Press.
- Peter, I. (2004). The history of email. *Net history*. Retrieved May 19, 2007, from <http://www.nethistory.info/History%20of%20the%20Internet/email.html>
- Peterson, T. (2006). New media poetry and poetics from concrete to codework: Praxis in networked and programmable media [Electronic Version]. *Leonardo Electronic Almanac*, 14. Retrieved June 14, 2008, from http://leoalmanac.org/journal/vol_14/lea_v14_n05-06/peterson.asp
- Petrina, S. (2008). Medical liberty: Drugless healers confront allopathic doctors, 1910-1931. *Journal of Medical Humanities*, 29, 205-230.
- Philip, K. (2005). What is a technological author? The pirate function and intellectual property. *Postcolonial Studies*, 8(2), 199-218.
- Plato. (1955). *The Republic* (H. D. P. Lee, Trans.). Middlesex: Penguin Books.
- Popper, K. R. (1966). *The open society and its enemies* (Vol. 1). London and Boston: Routledge & Kegan Paul.

- Powell, J. (2006). *Jacques Derrida: A biography*. New York: Continuum International Publishing Group.
- Prendergast, M. (2009). *Poem* is what? Poetic inquiry in qualitative social science research. In M. Prendergast, C. Leggo & P. Sameshima (Eds.), *Poetic inquiry: Vibrant voices in the social sciences*. Rotterdam: Sense publishers.
- Price, B. (1942, October). Governmental censorship in war-time. *The American Political Science Review*, 36(5), 837-849.
- Quo, S. (2004). Spam: Private and legislative responses to unsolicited electronic mail in Australia and the United States. *Murdoch University Electronic Journal of Law*, 11(1).
- Rabiner, L. R. (1989). A tutorial on hidden Markov Models and selected applications in speech recognition. *Proceedings of the IEEE*, 77(2), 257-286.
- Race, J. (2005, August 30). You needn't eat spam (nor worms) [Electronic Version]. *Free Software Magazine*. Retrieved December 12, 2007, from http://www.freesoftwaremagazine.com/free_issues/issue_06/neednt_eat_spam/
- Rancière, J. (2004). *The politics of aesthetics: The distribution of the sensible*. London and New York: Continuum.
- Rancière, J. (2006). *Hatred of democracy*. London and New York: Verso.
- Rancière, J. (2007). *On the shores of politics* (L. Heron, Trans.). London and New York: Verso.
- Rathje, W., & Murphy, C. (2001). *Rubbish!: The archeology of garbage*. Tucson, AZ: University of Arizona Press.
- Raymond, E. (1996). *The new hacker's dictionary* (3rd ed.). Cambridge, MA: The MIT Press.
- Raymond, E. (1999). The cathedral and the bazaar. *Knowledge, Technology, and Policy*, 12(3), 23-49.
- Read, R. (2005). *O spam poems: Selected daily treated spam September 2003 - January 2005*. Toronto, ON: BookThug.
- Rella, F. (1994). *The myth of the other: Lacan, Foucault, Deleuze, Bataille*. Washington, DC: Maisonneuve Press.
- Rheingold, H. (1994). *The virtual community: Homesteading on the electronic frontier*. New York: HarperPerennial.
- Richards, T. (1990). *The commodity culture of Victorian England: Advertising and spectacle, 1851-1914*. Stanford, CA: Stanford University Press.
- Richardson, M., & Fijalkowski, K. (Eds.). (2001). *Surrealism against the current: Tracts and declarations*. London and Sterling, VA: Pluto Press.
- Richardson, S. (1740/1816). *Pamela: or virtue rewarded: In a series of familiar letters from a beautiful young damsel to her parents*. London: T. Kinnorsley.

- Rogers, H. (2005). *Gone tomorrow: The hidden life of garbage*. New York: The New Press.
- Rooksby, E. (2007). The ethical status on non-commercial spam. *Ethics and Information Technology*, 9(2), 141-152.
- Ropohl, G. (1983). A critique of technological determinism. In P. T. Durbin & F. Rapp (Eds.), *Philosophy and Technology*. Dordrecht: D. Reidel Publishers.
- Roszak, T. (1972). *Where the wasteland ends: Politics and transcendence in postindustrial society*. Garden City, NY: Doubleday and Company.
- Rothenberg, J., & Joris, P. (Eds.). (1995). *Poems for the millennium* (Vol. 1: From fin-de-siecle to negritude). Berkeley & Los Angeles, CA: University of California Press.
- Rubinstein, R. (1999). Gathered, not made: A brief history of appropriative writing [Electronic Version]. *The American Poetry Review*. Retrieved September 18, 2007, from <http://www.ubu.com/papers/rubinstein.html>
- Russell, A. L. (2001). *Ideological and policy origins of the Internet, 1957-1969*. Paper presented at the 29th TPRC. Retrieved December 08, 2007, from <http://arxiv.org/abs/cs.CY/0109056>
- Rutsky, R. L. (2005). Information wants to be consumed. In S. Cohen & R. L. Rutsky (Eds.), *Consumption in an age of information* (pp. 61-75). Oxford and New York: Berg.
- Sahami, M., Dumais, S., Heckerman, D., & Horvitz, E. (1998). *A Bayesian Approach to Filtering Junk E-Mail*. Paper presented at The Association for the Advancement of Artificial Intelligence Workshop on Learning for Text Categorization, Menlo Park, California.
- Sale, W. M. (1950). *Samuel Richardson: Master printer*. Ithaca, NY: Cornell University Press.
- Sarikakis, K. (2004). Ideology and policy: Notes on the shaping of the Internet [Electronic Version]. *First Monday*, 9, from http://www.firstmonday.org/Issues/issue9_8/sarikakis/
- Schneider, S. M., & Foot, K. A. (2004). The Web as an object of study. *New Media and Society*, 6(1), 137-154.
- Schneiderman, D. (2006). Everybody's got something to hide except for me and my lawsuit: William S. Burroughs, DJ Danger Mouse, and the politics of "Grey Tuesday." *Plagiarism: Cross-Disciplinary Studies in Plagiarism, Fabrication, and Falsification*, 1(13), 1-16.
- Schumacher, P., & Monahan-Martin, J. (2001). Gender, Internet, and computer attitudes and experiences. *Computers in Human Behavior*, 17, 95-110.
- Seid, T. W. (2004). Papyrus (5th Cent. B.C.E.-8th Cent. C. E.). Retrieved July 17, 2008, from <http://www.earlham.edu/~seidti/iam/papyrus.html>
- Seigneur, J.M., & Jensen, C. D. (2003). Privacy recovery with disposable email addresses. *IEEE security and privacy*, 1(6), 35-39.

- Seltzer, M. (2000). The postal unconscious. *The Henry James Review*, 21, 197-206.
- Seneta, E. (1996). Markov and the birth of chain dependence theory. *International Statistical Review*, 64(3), 255-263.
- Shah, R. C., & Kesan, J. P. (2003). Manipulating the governance characteristics of code. *Info*, 5(4), 3-9.
- Shusterman, R. (2000). *Performing live: Aesthetic alternatives for the ends of art*. Ithaca and London: Cornell University Press.
- Shuttleton, D. E. (1999). "Pamela's library": Samuel Richardson and Dr. Cheyne's "universal cure". *Eighteenth Century Life*, 23(1), 58-79.
- Siegert, B. (1999). *Relays: Literature as an epoch of the postal system* (K. Repp, Trans.). Stanford, CA: Stanford University Press.
- Smith, G. (2007, December 3). Unsung innovators: Gary Thuerk, the father of spam. Retrieved July 20, 2008, from <http://www.computerworld.com/action/article.do?command=viewArticleBasic&articleId=9046419>
- Sobel, R. (1995, May 1). How to make a fortune on the Internet superhighway: Everyone's guerrilla guide to marketing on the Internet and other on-line services. *Electronic news* Retrieved September 13, 2008, from http://findarticles.com/p/articles/mi_mOEKF/is_n2063.v4/ai_1714217?tag=untagged
- Soley, L. (2006). Private censorship, corporate power. In R. Atkins & S. Mintcheva (Eds.), *Censoring culture: Contemporary threats to free expression* (pp. 15-28). New York and London: The New Press.
- Sorkin, D. E. (2001). Technical and legal approaches to unsolicited electronic mail. *University of San Francisco Law Review*, 35(Winter), 325-384.
- Spam Act 2003: An Act about spam, and for related purposes, Act No. 129 C.F.R. (2003).
- Spangler, T. (2005, March 7). Fighting the pox on your inbox [Electronic Version]. *Baseline*. Retrieved December 26, 2007, from http://www.baselinemag.com/print_article?/0.1217.a=147464.00.asp
- Specter, M. (2007, August 06). Damn spam: Losing the war on junk email [Electronic Version]. *The New Yorker*. Retrieved November 01, 2007, from http://www.newyorker.com/reporting/2007/08/06/070806fa_fact_specter/
- Spinello, R. A. (1999). Ethical reflections on the problem of spam. *Ethics and Information Technology*, 1, 185-191.
- Spinello, R. A. (2001). Code and moral values in cyberspace. *Ethics and Information Technology*, 3, 137-150.
- Spink, A. (2000). Toward a sustainable science of information. In A. Scammell (Ed.), *i in the sky: Visions of the information future* (pp. 152-161). Chicago and London: Fitzroy Dearborn Publishers.

- Stallabrass, J. (1996). *Gargantua: Manufactured mass culture*. London: Verso.
- Stanton, A. (Writer) (2008). WALL-E. In Walt Disney Pictures and Pixar Animation Studios (Producer). United States.
- Statistics Canada. (2008, June 12). Canadian Internet Use Survey [Electronic Version]. *The Daily*. Retrieved July 03, 2008, from <http://www.statscan.ca/Daily/English/080612/d080612b.htm>
- Steele, C. (2000). The future of information access. In A. Scammell (Ed.), *i in the sky: Visions of the Information Future* (pp. 51-55). Chicago and London: Fitzroy Dearborn Publishers.
- Stefik, M. (1999). *The Internet edge: Social, technical, and legal challenges for a networked world*. Cambridge, MA: The MIT Press.
- Stewart, W. (1996-2007). Email History. *Living Internet*, Retrieved July 19, 2007, from <http://www.livinginternet.com/e/ei.html>
- Stewart, W. J. (2007). Performance modelling and Markov chains. In M. Bernardo & J. Hilston (Eds.), *Formal methods for performance evaluation* (Vol. 4486, pp. 1-33). Berlin & Heidelberg: Springer.
- Stibbe, A. (2004). Towards poetic activism: A way of challenging ecologically destructive discourses without creating a stifling new orthodoxy [Electronic Version]. *Language & Ecology*, 1. Retrieved February 18, 2006, from <http://www.ecoling.net/Feb4.htm>
- Stibbe, A. (2008). Words and worlds: New directions for sustainability literacy [Electronic Version]. *Language & Ecology*, 2, from http://209.85.173.104/search?q=cache:X-qYchul2p8J:www.ecoling.net/sustainability_literacy.pdf+Sustainability+education+and+language+discourse+2008&hl=en&ct=clnk&cd=10&gl=ca&client=firefox-a
- Stoodley, K. (2004, November 19). Father of spam speaks out on his legacy. *eSecurity Planet* Retrieved July 20, 2007, from <http://www.esecurityplanet.com/trends/article.php/3438651>
- Strasser, S. (1989). *Satisfaction guaranteed: The making of the American mass market*. New York: Pantheon Books.
- Strasser, S. (1999). *Waste and want*. New York: Henry Holt and Company.
- Szekely, M. D. (2008). Thresholds: Jazz, improvisation, heterogeneity, and politics in post-modernity. *Jazz Perspective*, 2(1), 29-50.
- Takenouchi, T. (2006). Information ethics as information ecology: Connecting Frankl's thought and fundamental informatics. *Ethics and Information Technology*, 8(4), 187-193.
- Tarde, G. (1969). *On communication and social influence*. Chicago and London: University of Chicago Press.
- Tate, A. (1994). Bakhtin, addressivity, and the poetics of objectivity. In R. D. Sell & P.

- Verdonk (Eds.), *Literature and the new interdisciplinarity: Poetics, linguistics, history* (pp. 135-150). Amsterdam and Atlanta, GA: Rodopi.
- Taylor, T. (2004). Strange sounds: Music, technology, and culture. *Journal of Popular Music Studies*, 16(1), 89-95.
- Templeton, B. (2008). The origins of 'spam' to mean net abuse. Retrieved March, 23, 2007, from <http://www.templetons.com/brad/spamterm.html>
- The Task Force on Spam. (2005, May). *Stopping spam: Creating a stronger, safer Internet* (lu64-24/2005). Ottawa, ON: Industry Canada, Information Distribution Center.
- Theall, D. (1997). *James Joyce's techno-poetics*. Toronto: University of Toronto Press.
- Thompson, C. J., Stern, B. B., & Arnould, E. J. (1998). Writing the differences: Poststructuralist pluralism, retextualization, and the construction of reflexive Ethnographic narratives in consumption and market research. *Consumption, Markets and Culture*, 2(2), 105-160.
- Thralls, C., & Blyler, N. (2002). Cultural studies: An orientation for research in professional communication. In L. J. Gurak & M. M. Lay (Eds.), *Research in technical communication* (pp. 185-228). Westport, CT: Greenwood Publishing Group.
- Tierney, W. G., & Lincoln, Y. S. (Eds.). (1997). *Representation and the text*. Albany, NY: State University of New York Press.
- Torres, R. (2005). Digital poetry and collaborative wreadings of literary texts. In R. Torres & N. Ridgway (Eds.), *New media and technological cultures*. Oxford: The Interdisciplinary Press/Learning Solutions.
- Turner, E. S. (1953). *The shocking history of advertising!* New York: E. P. Dutton & Company.
- Tye, L. (1998). *The father of spin: Edward L. Bernays and the birth of public relations*. New York: Crown Publishers.
- Universal Postal Union. (2003). *The role of postal services in shaping the information society*. Paper presented at the World Summit on the Information Society (WSIS), Geneva 2003 and Tunis 2005. Retrieved March 25, 2008, from http://www.itu.int/dms_pub/itu-s/md/03/wsispc2/c/S03-WSISPC2-C-0090!!PDF/E.pdf
- USPS. (2007). History of the U.S. Postal Service. Retrieved December 07, 2007, from http://www.usps.com/history/his2_75.htm
- Veblen, T. (1994). *The theory of the leisure class*. New York: Dover Publications.
- Veidemanis, G. V. (1982). The humane art, English teachers, and the postal service. *English Journal*, 71(5), 60-63.
- Virilio, P. (2005). *The Information Bomb* (C. Turner, Trans.). London and New York: Verso.
- Wainwright, H. (2008, January 03). The commons, the state and transformative politics [Electronic Version]. *Red Pepper*. Retrieved August 17, 2008, from http://www.tni.org/detail_page.phtml?act_id=17760

- Waldman, D. (1992). *Collage, assemblage, and the found object*. New York: H. N. Abrams.
- Wallace, P. M. (1999). *The psychology of the Internet*. Cambridge: Cambridge University Press.
- Ward, B., & Dubos, R. (1972). *Only one earth: The care and maintenance of a small planet*. Middlesex: Penguin Books.
- Watten, B. (2003). *The constructivist moment: From material text to cultural poetics*. Middletown, CT: Wesleyan University Press.
- Weber, T. (2004, January 24). Gates forecasts victory over spam. *BBC News*. Retrieved January 06, 2008, from <http://news.bbc.co.uk/1/hi/technology/3426367.stm>
- Werbach, K. (2002, November 18). Death by Spam [Electronic Version]. *Slate*. Retrieved May 18, 2008, from <http://www.slate.com/id/2074042/>
- West, B. (2002, July 25). What we're about. *Spandemic Research Center*. Retrieved January 09, 2008, from <http://www.cluelessmailers.org/spamdemic/index.html>
- Wiebe, N. G. (2008). Mennocostal musings: Poetic inquiry and performance in narrative research. *Forum: Qualitative Social Research*, 9(2), 17 paragraphs.
- Wilks, S. (2008). Pedagogy. In G. Pollock (Ed.), *Conceptual odysseys: Passages to cultural analysis* (pp. 138-152). London: i.B. Tauris.
- Williams, R. (2005). *Culture and materialism: Selected essays*. London: Verso.
- Willinsky, J. (1999). *Technologies of knowing: a proposal for the human sciences*. Boston, MA: Beacon Press.
- Wilson, C. (2007). *Botnets, cybercrime and cyberterrorism: Vulnerabilities and policy issues for congress. (CRS report for Congress)*. Retrieved December 28, 2007. from <http://www.fas.org/sgp/crs/terror/RL32114.pdf>.
- Wong, A. (2004). The impact of Australia's anti-spam legislation [Electronic Version]. *ZDNet Australia, Insight - Business*. Retrieved February 07, 2007, from <http://zdnet.com.au/insight/business/soa/The-impact-of-Australia-s-anti-spam-legislation/0,139023749,139116020,00.htm>
- Wyatt, S., Henwood, F., Miller, N., & Senker, P. (2000). *Technology and inequality: Questioning the information society*. London and New York: Routledge.
- Yaeger, P. (2003). Trash as archive, trash as enlightenment. In G. Hawkins & S. Muecke (Eds.), *Culture and waste: The creation and destruction of value* (pp. 103-116). Lanham and New York: Roman and Littlefield.
- Yerazunis, W. S. (2004). *The spam-filtering accuracy plateau at 99.9% accuracy and how to get past it*. Paper presented at the 2004 MIT Spam Conference. Retrieved March 14, 2008, from http://crm114.sourceforge.net/docs/Plateau_Paper.html
- Young, L. M., & MacLow, J. (Eds.). (1970). *An anthology of chance operations* (2nd ed.). Bronx, NY: George Maciunas.
- Zdziarski, J. A. (2005). *Ending spam: Bayesian content filtering and the art of statistical*

language classification. Retrieved November 24, 2007, from
<http://library.books24x7.com/toc.asp?bookid=11517>

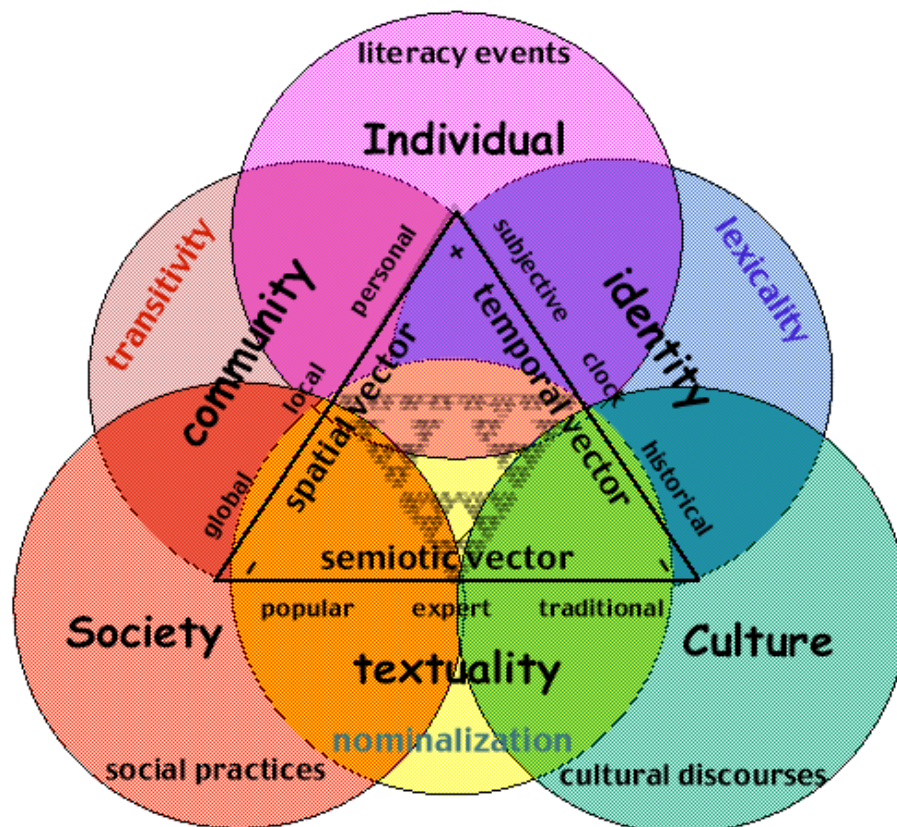
Zeitlyn, D. (2003). Gift economies in the development of open source software:
anthropological reflections. *Research Policy*, 32(7), 1287-1291.

Zweig, J. (2007). Ars combinatoria: Mystical systems, procedural art, and the computer.
Art Journal, 56(Fall), 20-29.

Appendix A

Resonations of Personal Correspondence in the Pubic Sphere

Overlapping areas of resonance in the model below are meant to represent the set of manifest recognitions among possible forms of the answerable aesthetic act. In each sphere, much of the possible remains entirely outside of the triangulated plane of instantiation. All individuals, societies and cultures are not equally empowered, thus a critical model would not appear equilateral, static, or in spherical equivalence. The degree to which these spheres overlap depends on the correspondence between sources of social and cultural capital (Bourdieu, 1984; 1991; 1993).



Appendix B

Data Dictionary for Statistical Processing of the Spam Corpus

Descriptive Categories:

1. Number
2. Sender
3. Address
4. Subject
5. Date
6. Time
7. Size
8. Recipient
9. Attack type
10. Advertisement
11. Image
12. Link
13. Quotation
14. Metaplasma
15. Euphemism
16. Filter text
17. Phishing
18. Server Recognized

Sub-classes

9. attack type: 0 = unknown; 1 = server list; 2 = dictionary; 3 = list-serve;

4 = random 5 = directed

10 (on next page)

11. image file: 0 = none; 1 = image; 2 = image with noise / skew

12. links: 0 = non; 1 = opt out; 2 = commercial; 3 = fraudulent; 4 = dead

13. quotation: 0 = none; 1 = literary; 2 = folk wisdom; 3 = celebrity
14. metaplasma: 0 = none; 1 = advertisement; 2 = all
15. euphemism: 0 = none; 1 = sex; 2 = size; 3 = impotence; 4 = attractive
17. phishing: 0 = none; 1 = bank fraud; 2 = e-card; 3 = free download

10. advertisement type:

- 0 . not known
- 1. pharma-sexual
- 2. pharma-weightloss
- 3. pharma-hairloss
- 4. pharma-meds
- 5. banking
- 6. get rich quick
- 7. credit refinancing
- 8. multilevel marketing
- 9. penny stocks
- 10. brides
- 11. invites to chat
- 12. pornography
- 13. jewelry and bags
- 14. online gambling
- 15. degrees (doc mast bach seco)
- 16. hit boosters
- 17. E-marketing
- 18. Advance fee fraud
- 19. Stop smoking
- 20. Software

Appendix C

Cross Tabulation of Advertising Type and Messages Containing Filter Text

<i>ad type</i>	<i>filter text yes / no</i>		
	<i>None</i>	<i>Yes</i>	<i>Total</i>
not known	27	21	48
Pharma-sexual	380	80	460
Pharma-weight loss	3	0	3
Pharma-hair loss	1	0	1
Pharma-meds	26	39	65
Banking	13	2	15
Get rich quick	1	0	1
Credit-refinancing	39	0	39
Multi level marketing	11	0	11
Penny stocks	30	2	32
Brides	2	0	2
Invites to chat	12	0	12
Pornography	151	10	161
Jewelry and Bags	65	6	71
Online Gambling	45	0	45
Academic Degrees	4	0	4
E-marketing	10	1	11
Stop smoking	1	0	1
Software	8	10	18