

CHAPTER TWO

List(en)ing Post

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“The crowd, suddenly there where there was nothing before, is a mysterious and universal phenomenon. A few people may have been standing together—five, ten or twelve, not more; nothing has been announced, nothing is expected.”¹ These lines from Elias Canetti’s *Crowds and Power* frame Jody Zellen’s work of the same name (2002), an illustrative engagement with that magisterial sociological work, as well as a meditation on urban space and interface design.² Making heavy use of pop-up windows, a common aesthetic feature at the time, Zellen’s work endeavors to produce the crowd through visual framing: as the user navigates the work the interface becomes crowded but notably never illegible, the tiled windows assuming the form of either mosaic or collage that preserves the integrity of both parts and whole.

Zellen has collected images of crowds from newspapers and other media sources, pictures from the archives that themselves constitute an archive. These pictures, along with the hyperlinked word “suddenly,” open a series of split screen pictures of the crowd, suggesting an unplanned and unexpected appearance, both spatially and temporally emergent—“the crowd, suddenly there where there was nothing before.” “As soon as it exists at all, it wants to consist of more people.”³ The pop-up windows close shortly after they open: “Just as suddenly as it originated, the crowd disintegrates.”

We can see in the operation of the pop-up windows a gesture toward instability and emergence in the general sense. Five years on, a shift in computing technologies,

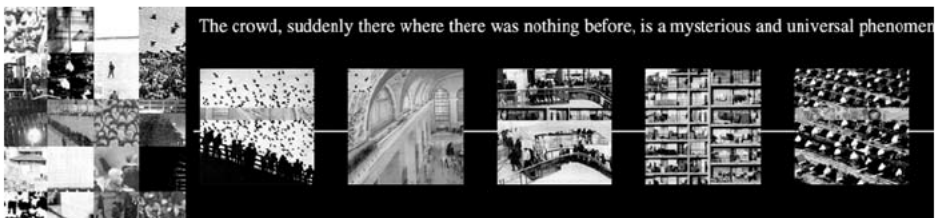


Figure 1. Jody Zellen,
Crowds and Power,
2002,
Website (screen capture).
© 2002, Jody Zellen

production environments, and aesthetics has made algorithmic text generation a more common means of achieving that sense of instability—and these algorithmic works also serve to remind us that there is both a human and machine processing the text. The dataset for these works tends to be fixed, however, and the difference I want to articulate has to do with the use of networked communication—specifically IRC but also SMS—as compositional material. In effect the crowd now provides the dataset that realizes the instability and mutability that might otherwise be simply projected. My essay focuses specifically on *Listening Post*, a multimedia installation that is both a sonification and a visualization of messages posted to more than 5,000 online forums (including chat settings and bulletin boards). Statistician Mark Hansen and sound artist Ben Rubin were issued a challenge from Bell Laboratories—give us a representation of the internet—so to answer the challenge they posed this research question for themselves: what would 100,000 people chatting on the internet sound and look like?⁴

In my analysis, I retain the word “crowd” to stand in for those 100,000 people. Since crowds are equated with modernity and imagined to have declined if not disappeared



Figure 2. Mark Hansen and Ben Rubin,
Listening Post,
2003.
Electronic installation.
© 2003, Mark Hansen and Ben Rubin.
Photograph by David Allison.
Image courtesy of the artists.

in the post-industrial context, one might ask why I do not speak of virtual communities or electronic gatherings, both forms of a public. Publics share common traits and experiences, being in common. Crowds share physical space. The public is a discourse of intimacy while the crowd is a discourse of strangeness, strangeness rather than modernist estrangement. Moreover, the crowd, in the sense that I am employing it, is both singular and multiple, not based on self-same identity but instead heterogeneous. In order to think about the affects and effects of *Listening Post*, I need to retain one line from Canetti that is also featured in Zellen's new media work: "In the crowd the individual feels that he is transcending the limits of his own person." The barriers separating self and the crowd dissolve in a process not of assimilation but of transport.

Listening Post is at once a post (site) for "listening to the web," an installation comprised of 21 columnar posts (suspended chain-circuit displays), and an algorithmically manipulated series of chat posts (messages). It is postmodern, post-linear, post-print, and to some degree post-literate. It is not then a realist presentation of 100,000 people chatting; rather it utilizes natural-language processing algorithms to parse, filter, and re-present their chat messages. Software agents collect data in near real-time (there is a time delay of 1–2 hours) from the online forums so there is an immediacy to the conversations on display that is reflected in the topical quality of the phrases that emerge in the piece. *Listening Post* is both communicative and aesthetic: as the artists explain, they "have endeavored to create a result which communicates information clearly, yet at the same time sounds well composed and appealing."⁵ The emphasis throughout is on intelligibility; it is not a matter simply of voicing each message in a given chat setting, which would be essentially unlistenable, "uproarious babble." The installation is divided into seven movements or scenes: seven sets of display algorithms structure the individual movements of the piece, filtering and organizing data so as to allow for the discovery and presentation of different patterns, signals rather than noise. While the dominant sensorial quality of the first six scenes alternates between the visual and the aural, the last culminates in an operatic synthesis of image and sound, textual script, and musical score. The durational cycle is approximately 20 minutes and throughout, *Listening Post* maintains a tension between viewing and reading, the singular message or voice on the one hand and multiplicity on the other, and this dialectic is never permanently resolved. As they explain, they were able simultaneously to convey "both scale (the impression of multiple voices talking at once) and content (by isolating a single voice, we can hear one person's contribution to the stream of thousands)."⁶

The project's significance is multifold. It is not that it merely satisfies our voyeuristic curiosity, nor does its significance derive solely from its virtuoso technique—lauded as it has been for its visual aesthetic, acoustic design, and statistic engine. Rather, *Listening Post* informs and delights—if you like we can say it has literary value—because it allows us to encounter a social totality in all of its complexity, because it offers up the fantasy of our temporarily situating ourselves as individuals in relation to a dynamic and mutable large-scale community, and because it allows us to become aware that we are performing "polyattentiveness," the dominant mode of data processing in the contemporary moment.⁷ In this context, polyattentiveness ups the ante on "reception in a

state of distraction”: it requires that we process musical content alongside of visual and spoken words, data streams that are not spatially fixed and that move well beyond the one-dimensional surface of the screen and even the projected three dimensionality of virtual environments such as the Cave.

The form of the installation is distinctive: 231 vacuum fluorescent display (VFD) screens mounted on circuit boards and hung from a curved scaffold. Each of the 231 screens is approximately 2"×6", their form evoking cash register screens, their green neon echoing stock market tickers, watch faces, news tickers, transport boards—evoking older media, earlier display technologies. “The artists selected this technology because it has a timeless and undated quality that will keep the piece fresh many years hence.”⁸ En masse, the 231 individual screens produce a circuit board effect that can be linked to our cultural imaginations of the grid, William Gibson’s cyberspace, Thomas Pynchon’s circuit card, the circuitry at the edge of the fabricated world in the film *13th Floor*. Some of the hardware of the circuits is exposed, reminding us that a user’s affective experience of a new media installations is not simply a product of conceptual machinery, but of actual machinery as well. The visual display is only part of the picture of course; it is after all a site for listening that includes spoken text and algorithmically generated piano accompaniment.

The first, third, and fifth movements are predominantly visual. At the outset of the piece, five waves of text wash in from right to left, announcing a fundamental violation of the conventions of the page for Roman alphabets. In the third movement, the pace varies but speed prevents complete comprehension of the 231 messages that scroll from right to left and fill out all of the displays. In both, the text is illegible, a-semantic, the signs purely visual and material. In movement five, four log-in names appear on a single screen, scrolling from bottom to top and from the edges to the center. In some of the movements the text is stabilized either on the vertical or the horizontal axis but on the whole *Listening Post* fundamentally violates the top-centric and left-centric orientations of print. When the text becomes positional—roughly analogous to the shifting of pieces on a game board—the familiar and stabilizing spatial coordinates of print-based reading have long been left behind.

In the second movement, for example, the visual display is initially concentrated in the center columns, then it moves from center to edges and edges to center. The effect is that of the slot machine and the text cannot be read from afar; one has to move in to isolate a single display to read. There are comparisons to be drawn here to visual artists such as Mark Lombardi and Chris Jordan, both of whom work with the interplay between organic whole and individual parts. With *Listening Post*, as with these other visual works, zooming in to read a particular part, a singular data element, means losing a grasp of the whole. They cannot be simultaneously comprehended in part and in whole. Jameson’s reading of Nam June Paik’s video installations as an illustrative example for the geometral optics of the postmodern aesthetic, practiced by viewers who try impossibly to “see all the screens at once, in their radical and random difference,” would pertain in this instance.⁹ But just as collage is deemed a “feeble name” to describe the assemblage of discontinuous parts into a whole, so, too, Paik might now be an outmoded example for the new geometral optics produced by split screens and multi-layered visuals that have a spatial, visual, semantic, temporal, and aural register.

Hansen and Rubin's commentary will allow us to pursue further the question of epistemological difference:

While it is beyond our capabilities to grasp the millions of simultaneous transactions taking place on the Internet, it is of compelling human interest to make sense of such environments in the large, to grasp the rhythms of our combined activities, of our comings and goings. Our inability to orient ourselves or otherwise fully perceive a larger environment is not a phenomenon unique to the virtual world. As communication and transportation technologies accelerate our movements and interactions, the spaces we live in are receding from our ability to directly sense them.¹⁰

In both Paik and *Listening Post*, the principle of sensorial overload and cognitive disorientation remains the same. The effect of reception may not differ but the effect of production does: the data that feeds Paik's video installation—and installations like it—is pre-recorded and forms a closed circuit. The content streams for *Listening Post* are live, filtered but also random and unpredictable, and therein lies the epistemological difference.

And, indeed, this installation is not strictly about the visual field but part of a broader turn to the multi-sensorial. In the second scene we first encounter the synthesized TTS (text-to-speech) engine, which speaks out phrases such as "we have to be smarter than the terrorists"; "he could be my son"; and "I like to be descriptive in my words." The sound moves from discrete words to surround sound and total cacophony as the TTS streams overlap. The mesmerizing and hypnotic qualities of the synthetic voices become clearly manifest, the sound of the work occasionally taking on what I hear as the cadence of a Gregorian chant. The fourth scene also makes significant use of positional and multi-layered sound. The trajectory of this section is roughly from singular spoken words, to overlapping voice streams, to positional sound that produce echoes. (Each word is played through a different speaker; in the latest installation, nine speakers are used.) At this point in the durational cycle of the piece, the user can clearly discern the extent to which both motion and font size are used to articulate and project volume. What is removed from her is the origin both of the utterances—we never know who is speaking—and of the sounds themselves, the source, cause, or emitter of which is not visualized. These are acousmatic rather than visualized sounds, to use the terms of Michel Chion, "sounds one hears without seeing their originating cause."¹¹ The acoustic and visual fields of the installation are thus semi-autonomous: the acoustic field is not strictly dependent on what we see just as the visual field is not strictly dependent on what we hear.

The physical density that Canetti articulates as one of the primary features of the crowd is captured in the layered voices and use of positional sound: density is achieved via cacophony as the listener has the sense of being physically surrounded, of being absorbed into the structure of the work. The crowd here is created acoustically rather than physically. Chion's reading of the use of sound in the street scenes of *Blade Runner* is apposite here: "in some of its crowd scenes a typical shot will contain very few characters, while on the soundtrack one hears a veritable flood of humanity . . . The effect

of pullulation created in this manner is actually stronger and more convincing than it would be if people were massed in the frame to ‘match’ the numerous voices” (191).

Hansen and Rubin speak of the acoustic goals of their work:

The advent of online communication has created a vast landscape of new spaces for public discourse: chat rooms, bulletin boards, and scores of other public on-line forums. While these spaces are public and social in their essence, the experience of “being in” such a space is silent and solitary. A participant in a chat room has limited sensory access to the collective “buzz” of that room or of others nearby—the murmur of human contact that we hear naturally in a park, a plaza, or a coffee shop is absent from the online experience. The goal of our project is to collect this buzz and render it at a human scale.¹²

What I have not yet directly acknowledged is that the buzz, the messages from bulletin boards and other chat settings, is unsolicited. This is private data made public—not precisely private in the sense that the IRC messages are culled from boards and other chat settings—but they are private to a particular community. But this interception of communicative signals for the production of art is an instance of surveillance turned back on itself, one analogy for which would be a guerrilla surveillance art practice such as video sniffing, that is, picking up signals from wireless CCTV networks with a cheap video receiver. *Listening Post* invites us to think about it in terms of both surveillance and voyeurism in the sense that we are looking at and listening in on private, local, often intimate messages that have been appropriated for a gallery installation. More precisely perhaps, the strata of public and private are collapsed in a work that filters according to constraints and strips away all sense of context and situatedness, whether regional or subjective. What remains is something like the Google Zeitgeist: a mass of subjective articulations that masquerades as collective consciousness. Listening to the crowd means confronting a cacophony created by overlapping voices; a density of acoustic layers; and the problem of extracting coherent meaning—either a single data stream or a single line on a bar graph.

In that Hansen wrote the set of instructions (algorithms) for the collection and sorting of data, *Listening Post* can be read in the context of the “aesthetics of administration” particular to the work of artists such as Sol LeWitt and Andy Warhol—except that in this instance, production tasks are delegated to computational machinery rather than to a team of workers, rendering the distinction between manual and intellectual labor as a distinction between machinic and human cognition. We thus need to consider *Listening Post* as a virtuosic statistical work. All of the movements are structured by constraints common to the field of data analysis: character length, frequently and least frequently used words. In the pivotal middle movement, for example, the algorithm pulls the least common words from a data set of approximately 100,000 real-time messages, producing a list that appears at once quite common and quite random—exceptions that tell us something interesting and important about the whole data set. The effect is synthesized spoken-word poetry: fate, squeeze, exists, multiply, oxymoron, matrix, costume, abs, vibration, institutes, expensive, scale, homemade. Scene six works with four-character groupings. Its aural quality stems not from TTS but from the ticking of the displays, evoking transport schedule displays and stock market tickers. The four-character

words scroll downward and then fade upward; they appear and then disappear. Here one encounters words and acronyms, occasionally misspelled, usually but not always in English: “skip only pity / feel wont trek / good evil milf / hace sata.” In an algorithmically generated work that uses linguistic constraints one can clearly see the two historical tracks that inform literary uses of computational media: the history of programming on the one hand and experimental writing practices such as Dadaist cut-ups and the techniques of Oulipo on the other. *Listening Post* began as an acoustic and statistical work but in the process of developing it they discovered a poetic as well.

The idiom and the content make it clear that *Listening Post* does not represent a strictly local population. The predominant use of English might seem to point to a more narrow demographic than “the global community” but it must first be noted that the linguistic constraints of the project are those of natural language processing, which has since its inception taken English as its default. The more significant point is that the English on display is a kind of electronic English, which is not necessarily geographically situated, nor is it necessarily the idiolect of a certain class or institution (its features are Leet-speak, acronyms, and the alphanumeric codes of IRC communications). With *Listening Post*, then, we have not just one audience but many, not just one community but many.

What is the significance of a text—visual, verbal, or acoustic—that makes one wonder what the signboards are, that will not allow access, that renders itself illegible? Such texts are quite common in the field of electronic literature: they throw into perplexity our sense of how symbolic structures work, how they are organized. They require the reader, listener, or viewer to create her own hermeneutic architecture and in this sense make explicit the act of interpretation that goes into the analysis of any text. But they also speak to a certain doxa about the information society: information overwhelms the sensorium because we have been inaugurated into a different, implicitly more basic, mode of processing information. Thus do we see Talan Memmott’s “Lexia to Perplexia” employ the trope of interference and Young-Hae Chang Heavy Industries test the limits of our visual perception in “Rain on the Sea.”¹³ In some sense this is the state of the field: writers and artists want to push eye, ear, and machine to their limits. But this is not to suggest a distinction between contemplative reflection (print) and distraction (new media). Rather, we read, view, and listen to new media works such as these in a state of distraction, whereby cognitive engagement is neither conscious nor apperceptive but based on an interplay between the two. *Listening Post* is paradigmatic in this sense: one pays due diligent attention but some of the semiotic structures are so manifest as to be interpreted without the reader/viewer ever becoming self-conscious about that interpretation. Moreover the speed of some of the textual movements, like the Young-Hae Chang, both command attention to reading and refuse over-attention: neither allows for the structured, controlled mode of reading that we have historically designated as literary.

Over a decade of thinking about the work of reading electronic literature and thinking about the work involved in that reading has led to many theories of reading practices that involve doing things. From Ted Nelson on hypertext as that which branches or performs on request to Espen Aarseth on the ergodic text as that which requires a nontrivial work from the reader, we have complimentary accounts of navigating gestures and theories of navigation as labor. But what labor, and what interactivity, is required in order to view, read, listen to *Listening Post*?¹⁴ The installation almost always

includes chairs, highlighting the extent to which it encourages stillness; contemplative, reflective reading and listening; even meditative absorption. We might then compare the sedentary qualities of “reading” *Listening Post* to Bruno Nadeau and Jason Lewis’s *Still Standing*, a work that takes a stand against motion.¹⁵

Nadeau and Lewis’s installation features a series of poetic texts that require the viewer’s immobilization in order to be read: specifically, the stillness of the viewer’s body causes the projected text to assemble as if attracted to a magnet. “The participant can then enjoy a motionless moment and contemplate the textual content that becomes more and more legible.” On the face of it, *Still Standing* seems to require cognitive rather than physical engagement, thus rendering stillness as an integral feature of reading. But there is an important paradox here: standing still asks for physical movement that we might even call rigorous; after all, it takes a certain strength and muscular control to remain motionless. Standing still, still reading, are still bodily—and an analysis of *Listening Post* must necessarily emerge from machinic production, textual content, and somatic response.

The seventh movement of *Listening Post*, its operatic climax, uses another primary dataset: from the last 100,000 messages surveyed, 85 beginning with I am/I like/I love (in alternating durational cycles) are selected and sorted by length. The syntactic constraints are such that one hears and reads the assertion of preferences (taste, habit, distinction), identity (situatedness), affect and emotionality. In this, the longest movement, rhythm and volume are variable; at moments it seems to wind down and come to a kind of conclusion; at others it intensifies, but it never becomes overly frenetic. The individual phrases are not always discernible aurally partly because of typos (‘I like my breats perky’) but a clear sense of the Other and of community emerges. A representative sample:

I am 16
I am stupid
I am a vegetarian
I am looking for love
I like to masturbate and torture small animals
I love French onion soup
I love Curt Donald Cobain!!!

Wonder and delight, disgust and repulsion: such is the range of the affective register produced by *Listening Post*. Here we can point to Teresa Brennan’s study of the



Figure 3. Bruno Nadeau and Jason Lewis,
Still Standing,
2004,
Electronic installation.
© 2004, Bruno Nadeau and Jason Lewis.
Image courtesy of the artists.

transmission of affect as “a process that is social in origin but biological and physical in effect,” the transmitted affects notably coming from interactions both from the environment—from the work itself—and from other people in the room.¹⁶ The wave of positive almost euphoric feeling that washes over the listeners is, as is the data represented, mutable. It is impossible to stabilize the mood, the sentiment, the affect of this piece, just as it is impossible to stabilize the mood of the Web. The pleasure of the quotidian, the amusement of the odd—these can quickly be superseded by mistrust and distaste as viewers gasp, laugh, and recoil from the articulations of self and desire. The synthetic voice strips out tone, which is invisible in written language and requires a live voice to animate it and bring it to the surface. How, then, are we to interpret the phrase “I like Palestine”? Is this ironic? Vehement? Even noncommittal? How do we respond to such a sentiment of moderation, particularly when it is voiced without tone?

What Hansen and Rubin have given us in *Listening Post* is a startling and provocative visualization of a collective, of community, on the one hand, and individual affect on the other. It may intuitively seem to be the case that large-scale, multi-user SMS works evoke or produce the more powerful notion of community (given that they feature active collaboration and participation), but in fact it is the unsolicited messages in *Listening Post* that give us something larger—more hopeful and possibly more disturbing all at once. After all, one moment may be “I like peach pie” and the next “I like to masturbate and torture small animals.” It simultaneously invites recognition and identification—“I am a vegetarian,” too—and the refusal of identification—some of these desires are wholly other to me, illegible and incomprehensible. Part of the sensation is attributable to the liveness, the near-synchronicity of the data: even with the hour-long delay one still has the sense that somewhere, out there, the author whose words we read is at her terminal, “looking for love.” On the one hand the individual listener is stationed before the work, but on the other, the sensorium is so bombarded that one becomes caught up in the work and in the crowd.

A sense of liveness, perpetual and perceptual presence, is also achieved through the syntactic and syntagmatic form of the list. Lists produce an insistent, even manipulative sequentiality, but they also establish an interplay between the individual and the cumulative whole, the dynamic relations between the singular item, unit, or object on the one hand and the archive or database on the other. Lists, too, offer an accelerated and compressed temporality: why else should Jameson’s list of postmodern works come in the form of a manic citational list (Robert Venturi, Godard, Talking Heads, Gang of Four, Pynchon, John Ashbery, all at once, the postmodern situated in the perpetual present). A corollary here is Chris Mendoza’s software piece, *Every Word I Saved* (2006), which, as its title suggests, displays every word the artist saved to his hard drives from 2000 to 2006.¹⁷ The words are harvested from text documents, email messages, and IMs and then alphabetized; original capitalization is retained but otherwise content is stripped away, again rendering six years of work in a perpetual present. On the other hand, however, lists are about belatedness, which is to say that the effects of the lists are after effects. This is certainly the case for *Listening Post*, the words and phrases echoing in the mind for days and even months after viewing the work. It is as I have suggested difficult to identify a stable affect in the texts on display without context and a tonal register, but a kind of affect is produced both in the

on-site processing and in the belated processing, the encounter one has with strains of affect that have lingered and encrusted themselves in the memory.

There are at least two meanings or registers of the list: the first is that of collection and archiving, its province that of the personal and the cultural. The second is that of aggregation and complexity, each item not additive but transformative. *Listening Post* makes the relentless sequentiality of the list aesthetic, hypnotic, mesmerizing (here we must certainly think of John Cage). It also participates in a long-term tradition of literary lists and using lists to produce aesthetic effects, notably encompassing *Ulysses*' "Ithaca" chapter and Raymond Queneau's "Cent milles milliards de poèmes" (1961), and in our current moment we might note Mark Z. Danielewski's *House of Leaves* and his recent *Only Revolutions*, with its user-generated lists of important events in the twentieth century. But *Listening Post* also works with the second register of the list in that each word, each phrase, is transformative of the whole. *Listening Post* brings disparate posts into some form of intersection and synthesis. In that intersection, something else is created that exceeds those discrete posts. The intersection of discrete posts forms a strange kind of community, one that is mobile, fluid, dynamic.

Hansen and Rubin speak specifically about community in their commentary on *Listening Post*. It is a representation of user activities online and there is a certain emphasis on the viewer/listener experience of the data, but more broadly, the project is an "attempt to characterize a global dialogue, integrating political debates, discussions of current events, and casual exchanges between members of virtual communities."¹⁸ Further, they explain, "a byproduct of our Web traffic sonification is the creation of a kind of community from the informal gathering of thousands of visitors to a given Web site."¹⁹ But what kind of community is this exactly? We have seen already that it provides an interplay between univocality and frenetic babble, the virtually unintelligible murmurs of the crowd. It is also a community without community, a community based not on self-same identity (blood or soil) or consensus but heterogeneity and dissensus: in this respect it is an ideal figure for new media theorists who endeavor to articulate "virtual community" in non-idealist terms.²⁰

Many media artists have sought to break the closed-circuit networks of IRC and SMS communication by inviting visitors to contribute text, to make private speech public. Such performance spaces are exterior to the gallery, mobile and unframed. SMS projects in particular tend to be "designed for crowded public spaces"—bridges, street corners, public squares—their use of building facades as projection screens signaling a shift away from framed and static screens to practices of mobile and locative media. SMS projects are designed for crowd participation but *Listening Post* is the crowd, or least a representation of the crowd. The grid display in this respect functions as a visual metaphor for large-scale community and collectivity. Here we can think literally of the relay clicks, which make the searching of tens of thousands of messages materially audible; the use of positional sound; and the aural cacophony of many of the movements of the piece, all of which produce a sense of being physically and psychically crowded. CGI has situated the crowd as the predominant visual figure of our moment—the crowd is the figure by which one proves the mettle of the application and of the designer—and we can learn something from these representations. Think of *Ratatouille* or *300*: the computer-generated crowd is at once a singular entity and locally defined and

detailed. In other words, this crowd is not the same as the fascist crowd, which thinks in common and becomes a mob. A shared social context inevitably leads to patterns, thematic threads, topic clusters—celebrity, sex, food, war, politics—but the crowd of *Listening Post* does not act, perform or present as a unified whole. We might also be accustomed to thinking of the crowd as a violation of the sanctity of the individual and of individuation—such is the threat of the Matrix and of films such as *I, Robot*. But the crowd of *Listening Post* is marked not by its unity but by its internal differentiation and mutability. Its mutability and dynamism is partly a consequence of the use of real-time data but we might also venture further to say that what we see on display is unpredictability, non-programmed thinking.

To understand the community presented in and constituted by *Listening Post* we need to think in terms of the crowd in order to convey the sense of presentation, monitoring, surveillance. The crowd is that which one surveys, represents, assesses—yet it is also that which invites transport, the “transcending of the limits of one’s own person.” Our connections and affinities with it may be fleeting and temporary, but no less powerful and productive for being such. *Listening Post* makes significant contributions to the fields of sound and new media art but it does not offer us an abstract and abstracted aesthetic experience; instead it quite distinctly offers us an “ear to the ground,” a window looking out on to the crowd through which we can see, hear, and encounter the foreign and the familiar. It is, finally, paradigmatic for how I understand the work of the digital humanities for its text analysis; its mobilization of live content; its emphasis on multi-sensorial engagement, of which semantic processing would be one component; and its gesture toward polyattentiveness, a mode of cognition that is and yet is not available to us.



Figure 4. Mark Hansen and Ben Rubin,
Listening Post,
2003,
Electronic installation.
© 2003, Mark Hansen and Ben Rubin.
Photograph by David Allison.
Image courtesy of the artists.

Notes

1. Elias Canetti, *Crowds and Power* (New York: Farrar, Straus and Giroux, 1984), 16.
2. Zellen's work was the portal for the Whitney Artport site in October 2002 and was also published in *The Iowa Review Web* (December 2002); it is currently available from <http://www.ghostcity.com/crowdsandpower/>. Zellen notes that *Crowds and Power* is part of a larger work on urban spaces, *Ghost City* (1997–2006).
3. Canetti, *Crowds and Power*, 20.
4. *Listening Post*. <http://www.earstudio.com/projects/listeningpost.html>
5. Mark Hansen and Ben Rubin, "Babble online: Applying statistics and design to sonify the Internet," International Conference on Auditory Display (2001), vol. 5, <http://stat.bell-labs.com/who/cocteau/papers/pdf/rubin2.pdf>.
6. Mark Hansen and Ben Rubin, "Listening Post: Giving Voice to Online Communication," International Conference on Auditory Display (2002), vol. 1.
7. Merce Cunningham: "The logic of one event coming as responsive to another seems inadequate now. We look at and listen to several at once." Quoted in Daniel Belgrad, *The Culture of Spontaneity: Improvisation and the Arts in Postwar America* (Chicago, IL: University of Chicago Press, 1998), 161.
8. http://www.nytco.com/pdf/Moveable_Type.pdf (accessed on February 2, 2009).
9. Fredric Jameson, *Postmodernism; or, the Cultural Logic of Late Capitalism* (London: Verso, 1996), 31.
10. *Ear to the Ground: Hearing Movement and Change in the World*, <http://web.archive.org/web/20030901145300/cm.bell-labs.com/cm/ms/departments/sia/ear/index.html> (accessed on February 2, 2009).
11. Michel Chion, *Audio-Vision*, trans. Claudia Gorbman (New York: Columbia University Press, 1994), 71.
12. Mark Hansen and Ben Rubin, "Listening Post: Giving Voice to Online Communication," 4.
13. See Talan Memmott, *Lexia to Perplexia*, http://collection.eliterature.org/1/works/memmott__lexia_to_perplexia.html and Young-Yae Chang Heavy Industries, "Rain on the Sea," http://www.yhchang.com/RAIN_ON_THE_SEA.html (accessed on February 2, 2009).
14. Erkki Huhtamo, "Trouble at the Interface, or the Identity Crisis of Interactive Art," www.MediaArtHistory.org (2004), <http://193.171.60.44/dspace/bitstream/10002/299/1/Huhtamo.pdf> (accessed on February 2, 2009)
15. <http://www.keenk.com/papers/inter-inactivity.pdf> (accessed on February 2, 2009).
16. Teresa Brennan, *The Transmission of Affect* (Ithaca, NY: Cornell University Press, 2004), 3.
17. Chris Mendoza, *Every Word I Saved* (2006), <http://www.matadata.com/projects.php?id=1> (accessed on February 2, 2009).
18. Mark Hansen and Ben Rubin, "Babble online: Applying statistics and design to sonify the Internet," 3.
19. *Ibid.*, 3.
20. See, for example, Geert Lovink and Ned Rossiter, "Dawn of the Organised Networks," *Nettime* (October 17, 2005).

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Post-Chapter Dialogue, Raley and Ricardo

FJR: Polyattentiveness, as advanced in this essay, is a conceptual originality that fittingly describes one's being in the present historical moment; it connects to your photograph of society's incessant "reception in a state of distraction," requiring "that we process musical content alongside of visual and spoken words"—this harmonizes entirely with the notion of transmodality that I've found elsewhere, where the idea of "message" that is central to Roman Jakobson's model of language function, as a discrete entity passing through a single medium or container to a definite reception target, has been displaced by the separation of content out into an assumptive compound, a conglomerate of modalities that it penetrates in search of an optimal path of its expression but able to move through various such paths simultaneously. As an archetype, this notion seems generative: can we also imagine polyvisuality, polytextuality, polynarrativity, polytemporality, and polylocativity as dimensions of analysis of the new media art work, a phenomenon not exhausted by a definite route or region of representation?

RR: I borrow the term "polyattentiveness" from Merce Cunningham.¹ What I appreciate about the term is that it suggests a cultural and behavioral, rather than neurobiological, understanding of attention and distraction. At least in my own work, I feel on safe ground with a concept that speaks to subjective perception rather than empirical fact and to an implied rather than empirical audience. I realize that there are researchers in cognitive science who are thinking about, and working toward, an understanding of attention in neurobiological terms, but this does not obviate the need for cultural analysis. Polyattentiveness also suggests correlation rather than strict causality; in other words, it is not necessary that we adopt a determinist perspective in order to think about the way that the user receives a work such as *Istening Post*. Certainly it is too much to say that a particular work or even device causes us to behave, think, and read differently but we can say that a particular work is illustrative and symptomatic of changes that have already occurred *and* that it gestures toward changes that are still to come. In other words, we may not now have the mode of cognition adequate to a "full" processing of *Istening Post*—whatever that might entail—but who is to say that we may not in the near future, at least in that we are continually in the process of adapting to new interfaces and new sensorial experiences.

To speak directly to the question of polyvisuality, polytextuality et al as dimensions or components of analysis, I would point first of all to the very exciting work produced by *Actors: Journal of Culture and Technology in a Dynamic & Accrual*, which has done much to foster a "born-digital" critical rhetoric.² If criticism without a linear style of argumentation is ever to become paradigmatic—the singular data stream implied by your question—then I think certainly it will have to be in a medium that allows for the layering of different data types. Notwithstanding the rich traditions of annotation, footnoting, and illustration, print does have obvious limits in this regard. At any

rate the topic before us is critical writing that is both analytical and multiple and here I would point to the difference between critical analysis and the art work. However much we might hope for a mode and platform for critical writing that would duplicate the experience of viewing an art work, I would not wish criticism to forego its discursive analytical function.

FJR: Three anomalies in *Istening Post* bear reflection. First, this work, which is not rhapsodic or narrational, and doesn't depend on any sort of temporally unfolding content, is nonetheless structured into seven movements. Secondly, the content of the work comprises, as you make evident, "private data made public"; it is text destined, but not intended, for mediation through an artwork installed within the hermetic conditions of a gallery. Lastly, the work's configuration as a two-dimensional grid of equally spaced displays challenges the destructured and asymmetrical spontaneity of its subject, which is the emergent polyphony of the internet. Transposing written text into sound displayed over a field of optical phenomena, as does *Istening Post*, is one of the practices alluding to what you indicate, namely, that works like this in electronic literature "throw into perplexity our sense of how symbolic structures work, how they are organized." Is this symptomatic of a larger spirit of intersection and synthesis, terms that you correctly pinpoint as important operations in this work?

RR: Your articulation of a tension between structured and unstructured data takes us to the heart of the practice of data visualization, which is precisely that: the filtering of masses of data into perceptible patterns, whether they be aural, visual, or lexical. But, from a different perspective, data visualization does not simply make patterns out of nothingness, or structure out of chaos, but it identifies or reveals the structure that already exists in a dataset. In other words, its project is pattern recognition, the discovery of hidden semantic structures. (*Many Eyes* provides a good overview of different visualization techniques.³) Data visualization also allows for multiple, simultaneous perspectives, a point that nicely connects with our exchange above.

I do think that the reading practices required by *Istening Post* are paradigmatic for digital literature, precisely in that the reader/viewer is often overwhelmed in her search for meaningful signifiers or at least is uncertain about how to construct a meaningful narratological, poetic, or even symphonic structure around it. Like *Exit to Perplexia*, another work of digital literature that I cite and greatly appreciate, *Istening Post* takes away our certainty and surety in reading: they are partly legible and yet they withdraw any semiotic certainty. Again, it does not need to be this way; we could be inaugurated into different practices of reading, viewing, and listening, such that the polytextual, polyvisual, polyphonic aspects of the work might seem quite ordinary. In other words, its perplexity is only such in relation to conventional symbolic structures.

Notes

1. Quoted in Daniel Belgrad, *The Culture of Spontaneity: Improvisation and the Arts in Postwar America* (Chicago, IL: University of Chicago Press, 1998), 161.

- 2. <http://www.vectorsjournal.org/>
- 3. <http://manyeyes.alphaworks.ibm.com/manyeyes/>

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