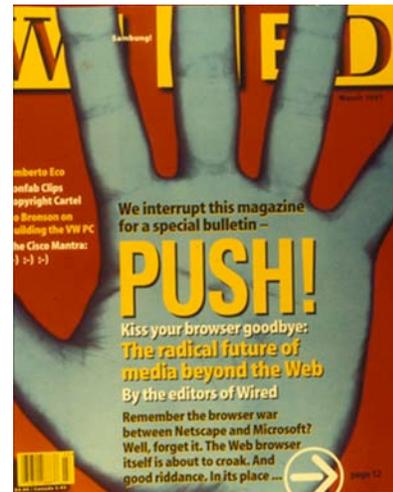
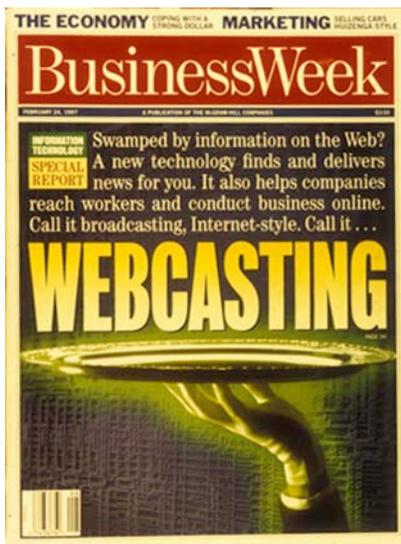


World-Wide White Wash: An Adventure in New Media Journalism

Anne Balsamo
Spring 2006

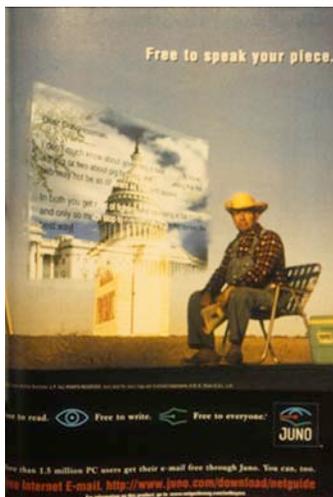
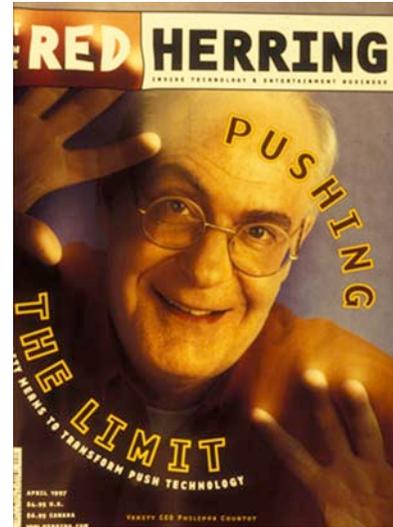
PushMe, PullYou: Webcasting as an Emergent Media Genre

The World Wide Web succeeded "virtual reality" as the media spectacle of the year in 1995. The sign "www" has become a familiar tagline of the mediascape as more and more corporate entities go on-line with elaborately authored interactive websites. During the past decade or so, (roughly from 1994 through 2006), the cacophony created by Internet newsgroups—where everybody was posting, but nobody was listening—has given way to the development of a textually mediated broadcast stations that take the form of blogs where people essentially advertise their opinions of things. Those archaic static text-only home pages of the early days of the web, later spawned hyper-textually organized *websites* where digital corporate agents offer cyberspatial tours of information to the mundanely curious web-surfer. We thought then, in 1996, that the web was secure in its triumph as the media form of the millennium. Y2K came and went and slowly we realized that the range of communicative and social possibilities enabled by the web were only just beginning to be explored. With the development of social networking applications, fueled by the general zeitgeist of the dot.com era, and enabled by new modes of technological assess, increases in data processing speeds, development of desktop media production software, and global shifts in technology fabrication and manufacturing, the web quietly yielded its status of “media form of the decade” to the blog-o-sphere, which is now in the process of yielding its crown to MMOGs.



It's always fascinating to track the emergence of a new media form—a phenomenon that has happened with increasing frequency over the past 25 years. Whereas I grew up with network television, soon followed by interactive home video games, I came of age the same year that Apple Computer went public (1980). My tenure as a cultural critic began with the domestication of the Internet. And although I watched closely the media frenzy created around the spectacle of virtual reality, I never anticipated

the orgy of communication enabled by the evolution of the World Wide Web and the wide-spread proliferation of web-based social phenomena. This chapter looks back to the emergence of an early form of social broadcasting made possible by the development of the web. In 1996, webcasting was an emergent new media genre that had captured the imagination and financial backing of almost every major computer corporation in the U.S. Early on it was referred to as LiveCasting or WebPublishing, but by 1996 the term “webcasting” was more commonly used to name the recombinant media genre that deployed techniques of newspaper journalism, magazine publishing, radio and television broadcasting, to produce a multimodal “web event” distributed via the internet to end users are cast as the intended audience.¹ The early media frenzy surrounding webcasting was preoccupied with its metaphoric communicative form: is it a *pull* medium that requires the active seeking of network users? or a *push* medium designed to counteract the maddening passivity of bored users? Heated debates unraveled around the question of what happens when pull comes to push?



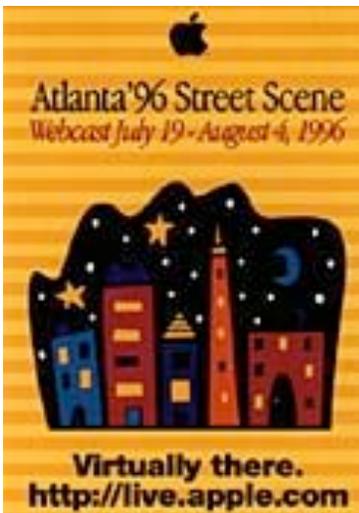
Like previous communication technologies, the web explodes the temporal and geographic boundedness of social communication such that the circulation of personalized messages no longer relies on the literal duplication and physical distribution of paper-based 'zines, xerox art, or those old-fashioned home movies. Of course, other forms of technologically mediated communication had already transgressed the temporal and geographic boundedness of personal communication; following this, it is important to note that the social broadcasting made available via the web to individual users was anticipated by the use of ham and CB radios, the production of public TV community programming, personals advertising, and, I would even venture to argue, by the development of reality TV programs and other shows such as *America's Funniest Home Videos*. In those early days of the web, we were cajoled—through advertisements and by the business press—that the web finally delivers on age-old promise of technologically augmented democracy because it puts the power to communicate with the masses (and congressional representatives) into the hands of everyday people. By doing for the individual, what the newspaper, radio and television did for collective capitalist subject, the web was cast as the great equalizer. As it turns out, that early interest in the web as a PUSH medium was not tied to its possibility as a technology that would deliver democracy, but rather to the possibilities that would deliver users to the corporate demagogues. When PointCast announced its interactive “screen saver” news service (in 1995), corporate America was understandably excited. Here was the device they had been waiting for—an application that would readjust the balance of power by subverting the maddening user-centered logic of the internet. Where previously the agency for accessing information (or advertisements)

rested with the user, with PointCast's PUSH service, corporate entities could deliver the goods (news, ads, and other forms of info-porn) without waiting to be accessed. One of the consequences of the use of this type of application is that web began to look like an old, fashioned broadcast medium chocked full of advertising, vacuous graphics, and brand identified media signatures. And yet, unlike older forms of radio and television "broad"casting, webcasting was from the beginning, much more narrow in reach because of both the documented demographics of web users and the level of technological infrastructure required for robust web access.

Webcasting the Atlantic Street Scene, circa 1996



The narrowness of the audience even potentially available never inhibited corporate interest in the phenomenon of webcasting. Indeed, during the Olympic Games held in Atlanta during 1996, there were no less than six websites offering differently packaged webcasts of the Summer Games. Sun Microsystems (and their star product, Java) for example, hosted a website from the Atlanta House of Blues and used audio-streaming technology to provide real-time on-line concerts. The technology giant, IBM, had an interactive site that posted Olympic athletic competition results—more than once, people commented that IBM's website dissemination was more reliable than its televisual dissemination. Just as we can now appreciate the Civil War for having been the first war to be extensively documented through photography, so too may the Atlanta Games be remembered as the first global event to have been extensively "covered" in cyberspace.



I had the opportunity to work on one of these webcasts the summer of 1996 along with a team of graduate students from the Georgia Tech program in "Information Design and Technology."² Apple Computer Corporation's Olympic webcast of the *Atlanta Street Scene* was initially planned to be on-line daily multimedia magazine that would run each of the 17 days of the Olympics. From early on, the Apple webcast was pitched as a genre of digital journalism; the intent was to combine live video and audio coverage of noteworthy *spontaneously emergent* events with previously prepared stories and photographic essays about life in Atlanta during the Games. Because Apple hadn't anted up the 40 million dollars to become an official Olympic sponsor—as did IBM, Coca Cola, and Kodak—they were greatly constrained in what they could claim to cover during their webcast. Apple project coordinators tried different avenues to gain access to a wider range of Olympic events--at one point they sought a partnership with *People* magazine in the hopes of obtaining official press credentials which would have conferred media status and journalistic privileges on Apple Web workers. But in the end, Apple was forced to keep their focus on the *unofficial* Olympic scene—thus we were employed as covert New Media Journalists charged with the responsibility of translating the street scene into a cyberspace spectacle.

Although they were not the earliest pioneers in webcasting, Apple Computer has, more recently, amassed significant experience in this nascent media form. Prior to coming to Atlanta, Apple web masters had worked on a highly successful webcast of the Grammy Awards in early 1996 and a more modestly successful webcast of the Apple WorldWide Developers Conference in May, 1996. This prior webcasting experience provided a foundation of technological expertise as to how to run a webcast, but was much less help in providing guidance as to how to organize the Olympic Street Scene webcast. Whereas the Grammys were a much more constrained event that imposed time-based limits on what could be covered, the trade show where Apple products and applications were the unquestioned stars of the event made *content* decisions about what should be posted on the site quite easy to make. Although the five Olympic webcast production teams were told when we were first hired that the Apple project coordinators wanted us to "push the outside of the envelope" in terms of webcast content, we found ourselves reined in at every turn. As Sandra Beaudin, one of the graduate students who I worked with on the webcast quipped: "we didn't even get to lick the flap." Before I elaborate the reasons for this, let me briefly describe some of our adventures as New Media journalists.

A Torch Song in Three Parts



Our first assignment was to cover the arrival of the Olympic Torch in Georgia. With tape recorders, video cameras, and powerbooks in hand, we ventured north of Atlanta to Cartersville where the town was staging an elaborate Welcoming Reception—sponsored by Coca Cola—for hometown torch bearers. Here we were treated to many picturesque shots of patriotic flag waving. The wait was long because everywhere the torch went, people mobbed the torch runners. While we waited, the crowd grew; kids danced in the streets; everyone drank Coca Colas, and celebrated the global party known as the Olympics in the down-home ways of Cartersville.



When the torch finally arrived, the crowd burst into spontaneous cheering. The spectacle continued with a rousing speech by a Coca Cola functionary, punctuated by the refrain "*BEHOLD THE FLAME.*" The highlight of the Torch Ceremony was the presentation of a plaque of recognition to Patrick Johnson, a long-time Cartersville resident who, although he had *qualified* for the 1980 Olympic Boxing competitions, was unable to participate because of the U.S. boycott of the games that year. Before we left Cartersville, we were able to interview Patrick Johnson to talk to him about the



missed Olympic games. As you can imagine, what we heard was a fascinating personal account of the impact of global politics on the career of an amateur athlete.



As the day unfolded, we pieced together *the story we wanted to tell* about the Torch's arrival in Georgia. Leaving the patriotic flag waving behind, we moved onto the next stop in our journey to track the torch. At midnight we set up our cameras in Piedmont Park (the central park of Atlanta) to watch the *downtown* Torch reception—this too sponsored by Coca Cola. Here we encountered an upscale crowd of Atlanta residents—young professionals, gay and straight, who live in some of the wealthier communities in the city. Coca Cola provided a D.J. who played the *Macarena*, while members of the crowd watched themselves dance on a Sony jumbotron amidst midnight picnics, campy costumes and several signs welcoming gay athletes from around the world. In fact, two of the torch runners who passed the torch in Piedmont Park that night were prominent gay activists in the city. This chapter of the story of the Torch's arrival in Georgia was, like the Cartersville chapter earlier in the day, a picture of nationalistic spectacle. The difference here was that gay identity could be openly celebrated and *officially* sanctioned as part of the Atlanta's American Olympic experience—albeit at midnight in the shadows of a park that would remain fairly unused during the rest of the days of the Olympic games.



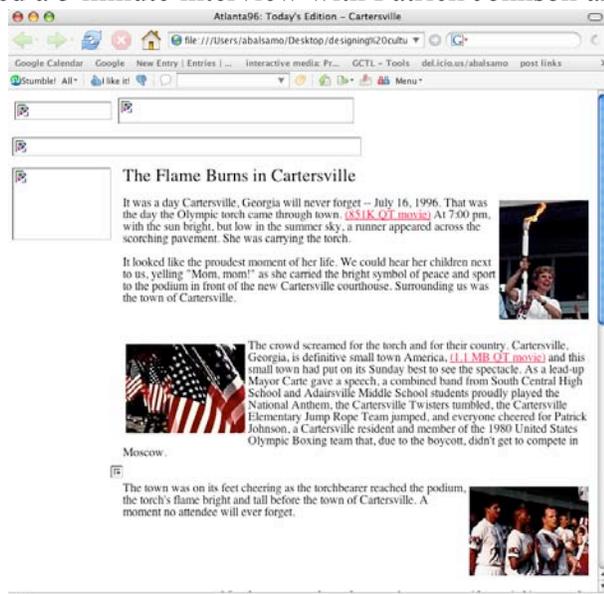
Even after the Torch made its way to the Olympic stadium, we were still engaged in the quest to construct a multi-layered story about the reception of the Olympics in various Atlanta communities. At 4:00 in the morning, we made our way to Little Five Points—a community near downtown Atlanta comprised of mixed racial and ethnic working class families and alternative households. The scene we encountered here was explicitly tribal in many senses. Loud, persistent drumming came from a large group gathered in the main community triangle. Bodies painted especially for the occasion mingled with bodies pieced and tattooed at local shops. Circling the drummers and painted dancers were several Christian groups who would literally stop and kneel in prayer alongside the paganistic drummers. The scene here was the most carnivalesque—where different groups commingled carrying polemic messages about the end of the world, the legalization of marijuana, and the demonization



of poverty. In contrast to the scene in Cartersville and Piedmont park, official Coca Cola sponsorship was no where to be found in Little Five Points, but it hardly mattered. The sidewalks were packed with people dancing, proclaiming, and selling stuff. As we watched them, we realized that the people we saw and spoke to that night and morning had a very different take on the global party was that just getting underway in the city. Here was gathered a diverse collection of community activists who considered the Olympic spectacle as an opportunity to dramatize their protests for an international audience.



I elaborate our attempts to track how different communities responded to the Olympic spectacle as an example of the type of new media journalism we were eager to practice. Our intent was to create a hypertext triptych that included individual webpages about Cartersville, Piedmont Park and Little Five Points linked as part of one story about the multifaceted meaning of the “American Experience” of the Olympic Games. Each page we produced included text, photos, and a short QuickTime video clip and was designed to link to one another via textual references to torch runners, community identities, and unsanctioned Olympic messages. For example, we produced a 5 minute interview with Patrick Johnson as a real-audio sound file to be linked off of the Cartersville story as a way to stimulate interest in a discussion about the enduring political nature of the Olympic games and to call attention to those other Olympics games that shadowed the Atlanta Olympics—we remembered that Jimmy Carter was the U.S. president who enforced the boycott in 1980. But the interview with Patrick Johnson never ran. Neither did the pages on the "Midnight Welcome Party for Gay Athletes" or "Black Atlanta's Protest Against the Olympic Games." The only story about the Torch's arrival that was ever published on the Apple site was the one that featured our video clip of the flag waving children from rural Georgia.



When we saw the Cartersville story, it wasn't immediately clear that the other pages were never going to run on the Apple site. The beauty of web publishing is that pages can be added at any time such that they link back to previous editions. But as the days wore on, and we saw the Patrick Johnson story stay on the white board list as an unslotted feature, we realized that we were witnessing one of the subtle ways in which new technologies get deployed in the service of old agendas. We were also witnessing the growing confusion on the part of Apple web producers about the *nature* of this new media form. Is it a content-based genre or a new marketing venue? Were we producing news or advertising? Who, indeed, was the intended audience?

Although they began with a mondo sensibility about the giddy possibilities of webcasting the Olympic Street Scene, the producers in Atlanta were themselves the subjects of disciplinary intervention from marketing managers back in Cupertino who, after day two, instructed them to refocus the content for a different idealized audience. It was on the issue of the generational identity of the intended audience that Apple was the most confused. In the beginning they speculated that their audience was comprised of iconoclastic computer hackers—generationally marked teen-agers and twenty-somethings who belong to the taste markets of MTV and cyberpunk science fiction. When the marketing people intervened, they directed the webcast to a yet a different idealized audience—international high end "power users" who (they speculated) belonged to the ranks of middle managers and knowledge workers in their mid-to late-thirties, who would be impressed (so they hoped) with the high-tech bells and whistles displayed on the Apple site. And yet, the aesthetic design of the site and the most enduring mode of rhetorical address seemed pitched to yet a different generational audience: that of children under the age of ten. The site's most popular features (as measured by the number of hits) were the 1) the top ten lists, and 2) the cyberspace postcards from children across the world. As an example of the level of narrative insight they sought, one of the early features was a one-page story about what "Americans think of Frenchmen and Vice Versa" that simply listed unamusing xenophobic projections. Needless to say, given their comical confusion about the intended audience, and the appalling lack of journalistic experience on the part of the Apple website managerial team, our experience working on this webcast was deeply disappointing.

A cynic might ask: "What did we expect when we agreed to work for a corporation like Apple?" I can tell you exactly what we expected—and indeed where our deviant ideas and hopes took root. In preparation for this project, my students and I talked a great deal about the different meanings that circulate about the web and the range of emergent new media genres that were then gaining popularity and garnering corporate interest. We



understood that the web builds on the expressive possibilities of earlier forms of media, while it makes new possibilities manifest. It both replicates dominant cultural narratives about the *democratic potential* of new communication technologies as well as manifests new possibilities for the *subversion* of democratic modes of communication through digital censorship and surveillance. Armed with an understanding of the world-wide-web as a contradiction-laden *emergent media form*, our participation in the Apple Olympic webcast was seen as an opportunity to identify the key elements of an emergent *technological formation* and to witness, if not also participate in the reproductive processes whereby new technologies become meaningful. We learned, for example, that dominant definitions of new information technologies typically focus on hardware and networks, but often forget to include reference to the less material elements such as database architecture, information design, and modes of interactivity. Yet these elements are often fetishized and indeed circulate as highly desirable commodities. Even when they are distributed for free (such as is the case with applications available via the web), they still have a discernible commodity form: they are "produced" by recognizable corporate agents, be it large entities like Microsoft, or by small start-up companies like Netscape (at the time); they are "marked" with a trade name that establishes a marketplace identity; and like all successful commodities, their primary effect is to stimulate consumption of other commodities: version 1.0 is built to be consumed and discarded when 2.0 arrives. We also learned that although these too are key parts of the technological formation called "information technology," they are not really the main goods in circulation.

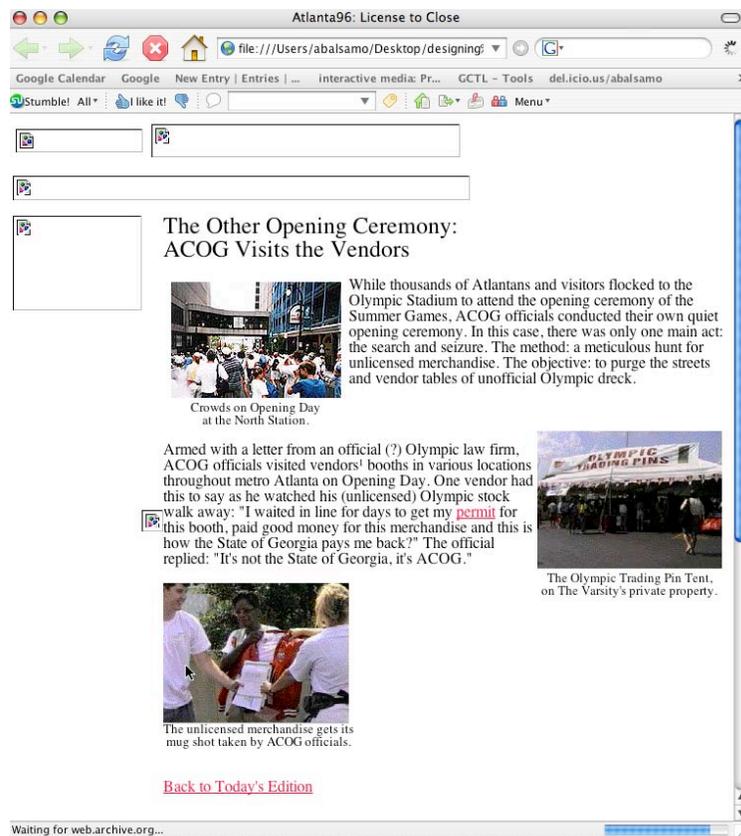


As many have argued, the deployment of new information technologies is as much concerned with the circulation of a *set of ideas about information* than with the circulation of particular goods and services.³ For individual users, information technologies are promoted as tools of individual empowerment. More than once, people have proclaimed that the web offers everyday citizens the opportunity to be both publisher and broadcaster of personally designed messages in a way

quite unlike the copy machine ever did. Not only can anyone (with a modicum of technical skill and a hacked together system) put up a home page or a blog, but all pages are equally valuable in the information economy because *every* page directly increases the value of the web (as measured by the number of domain names and sites) regardless of origin, content, or veracity. In those early days, as is true still, the hype would have us believe that—at the base—networked information is limitless in scope, or (more accurately) that any limits we currently encounter are simple technological matters of bandwidth and compression. What is rarely discussed is the way in which what is technologically possible becomes institutionally off-limits.

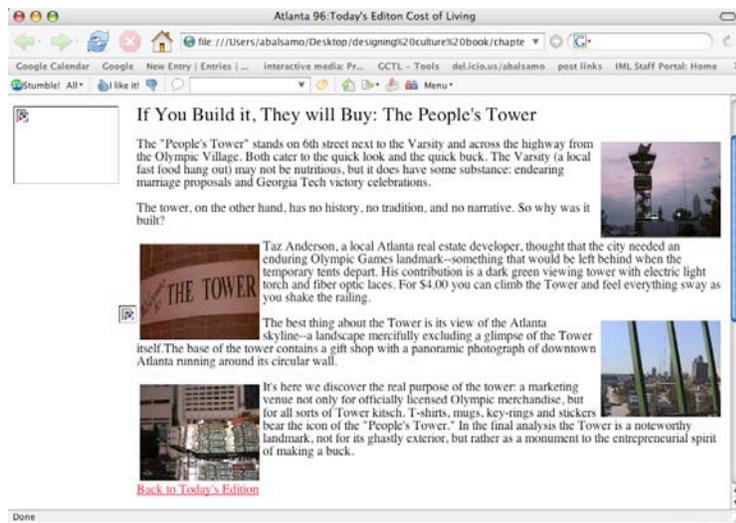
Let me elaborate: What we enjoyed during this webcasting project was an abundance of technological empowerment—supported by the institutional practices of both Apple and Georgia Tech. Not only did we have at our disposal the unlimited technological expertise of one of the largest computer companies in the world, we also had access to extensive (hardware and software) resources of one of the largest technological educational institutions in the South. There were strong institutional forces empowering us with a wide range of technological capacity. And yet we were curtailed in serious ways from using this capacity to creative ends. The failures we experienced—in terms of abridged hypertextually linked stories and the censorship of alternative narratives—were simply not technological failures. They were in fact, *failures of narrative*. We failed to tell the right stories, about the Olympics, about the Street Scene, and most of all about the role of Apple computers in the emergence of this new media form.

While we were empowered by our access to a whole host of new technologies, we were institutionally disempowered (for the most part) to use these technologies to tell different stories than those that trumpeted Apple's marketing messages. In more theoretical terms, the failure of narrative we experienced was the result of our failure to struggle successfully to influence the signifying elements of this technological formation. The narratives we produced—including those that weren't published—were not simple acts of representational creativity, there were in fact cultural enactments that aimed to reconfigure the technological formation through our designerly (articulatory) practices. In this sense, the Apple webcast presented an opportunity to get involved with the complex arrangements that determine the cultural meaning of an emergent media genre. At the time, I was particularly interested in exploring the possibilities for media activists and critics to intervene into dominant arrangements that define the meaning and "proper" use of new web applications and related technologies. Theoretically speaking, our collective project was an exploration of the possibility of *rearticulating* the technological ensemble. As cultural theorist, Jennifer Slack points out: "The success or failure of all these efforts to rearticulate the relationship between new technologies and [the dominant ideologies they promote] is dependent upon the effectiveness of real political



efforts of individuals and groups....[and yet,] the outcomes of real struggles to rearticulate social relations are not foreordained." (1989: 327)

And yet, even though we failed to publish the stories about the ways in which different Atlanta communities viewed the Olympic Games, we were more successful in our attempts to describe the antics of greedy entrepreneurs and authoritarian Olympic organizers. What we discovered is that in their confusion over the intended audience for the website, and as a consequence of their *lack* of experience in producing a daily on-line content-driven



magazine, the producers of the Apple website were often overwhelmed by the enormity of the task they had taken on. At different times, we were able to take *tactical* advantage of their confusion and exhaustion to slip in a few stories that *did not* feature Apple products, that *were not* about the glory of high-tech culture, and that *did not* promote Apple's self-styled global nationalism.

As a multimedia journalist, armed with the critical insights of recent cultural theory, my aim was simple: I wanted to create circulate stories about the cultural implications of the Atlanta Olympic games in the media spaces created by a host of (then) new information technologies. What I learned is probably common sense to most—certain parts of a technological formation are more firmly policed than others. Capitalism is a broad-reaching economic-cultural system held in place by numerous organizations, institutions, and social practices, historically rooted and ideologically reproduced at every turn. And yet, having said this, we also know that technological formations are not *uniformly* dominant. The challenge I took on was to work against the dominant articulation of the meaning of webcasting as an emergent media genre by working within the system to write different stories and tell different tales about the nationalist extravaganza known as the modern Olympic Games.

Coda: The Digital Dark Ages

In preparation for writing this essay, which went through numerous drafts as first a web-only article, then a power point presentation, and now finally a text-image essay, I returned to my digital files of archival material gathered and produced during the 1996 Olympic webcasting adventure. During the intervening decade I would periodically update the files from one format to another in anticipation of the day I would return to the material in the process of writing the account of our adventures in new media journalism. Where early files were saved on 3.5 in floppy disks, and then zip disks, sometime along the way I created a set of web links and put everything else in a box. The pages of the actual Apple webcast were archived on an Apple site called live.apple.com. Imagine my surprise, in 1998, a mere two years after the Apple webcast had wrapped, to find that the archived Apple site had simply disappeared! I remembered with some relief that I had taken slides of screen shots of some of the pages, but I hadn't remembered or thought to check on the number of pages I had documented that way. In 2005 when I turned my attention, finally, to assembling the archival materials for this chapter, I realized that I hadn't done a good job of documenting the stories that my team wrote that were published on the Apple site. A search of the 2006 web yielded a few old press releases about the Apple webcast of the 1996 "Atlanta Street Scene," and a dead link off of my CV.

The process whereby I did manage to recover some evidence of the web articles that my team published involved a range of digital archive skills. First I tried to find the url live.apple.com. This confirmed what I had suspected; the site was long gone. The pages that contain the words "live.apple.com" included a few press releases from the mid 1990s that announced various webcasts (including the Atlanta "Street Scene"), as well as web sites now littered with broken links. I then used the WayBack Machine in hopes of finding a previously archived version of the live.apple.com site. Although I knew that the Internet Archive had only began its routine archiving process in November 1996—three months after the "Atlanta Street Scene" webcast was over—I thought that it was very likely that one of the sites archived in 1996 would have been Apple's. And indeed, this is where I found the first traces of the Apple webcast. The first archival record for the live.apple.com site includes a section that explains what a webcast is:

What's in a Webcast?

Webcasts let you experience exciting live events using the latest Internet multimedia technologies. You can see, hear, and experience events as they actually happen from all over the globe. Pictures, sound, videos, chat and even virtual reality not only allow you to experience events, they let you be part of them as well.

From chatting with world leaders (Tommorrow's Cities), to virtually diving into the Mosh Pit at Metallica, Apple Webcasts help you bridge the gap between virtual reality, and real people around the world.

Using publicly available software, Apple Webcasts bring events to life on your computer, whether it's a Macintosh, or "the Other Kind" ... Now you don't need to leave your home - or

more to the point, you may not have to leave the country to enjoy the kinds of events that only Apple webcasts can bring you.

The “Atlanta Street Scene” webcast was featured as a link off the archived live.apple.com site. When I followed the link, I found the skeletal remains of the original webcast pages, including links to the stories created by my team.⁴ Here I was reminded that the webcast had included live chats, “spy cams” of web central, email contact, and a contest for viewers/readers. But skeletal is the only way to describe the pages that remain as digital traces in what is now a 10-year old archive. Stripped from the pages were the clip-art logos that gave the site its look and feel because these graphic elements must have been actively assigned to the pages from the main Apple web server. The only elements of the pages that remain are the text, some images, and empty frame formatting. Gone were all the embedded audio clips and QuickTime videos. In looking through the list of daily “issues,” I was reminded of technology-based stories that Apple editors were keen to feature, including pages on Real Audio, QuickTime, QuickTime Movies, QuickTime VR, Object Oriented QTVR, and the process of making animated gifs.⁵ In sifting through the remains of the site, I was delighted to find a trace of a memory I had forgotten, in this case it was a link to a page titled “World Wide Youth,” that featured my niece Amanda Balsamo and her interviews with “Mandy’s Kids.”

Mandy's Kids



While the world's attention focuses on the athletes and the competitions, an unprecedented number of children are in Atlanta ready to soak up as much excitement as they can. A week before the Opening Ceremonies, Mandy Balsamo - our shortest correspondant - interviewed kids near the Atlanta Underground. Below are just a few of the diverse, young personalities Mandy spoke with on the street.



Kuria

Age:
4

Ethnicity:
Kenyan

Languages:
English &
Kenyan

Favorite Sport:
Baseball



Although Kuria is only 4 years old, he knows he's ready to see some Olympic Baseball. Listen to him pronounce the name of his native language. ([14.4 kbps](#) or [28.8 kbps](#) RA file)

Grecia

Age:
8

Ethnicity:
Mexican

Languages:
Spanish

Favorite Sport:
Soccer



Meet Grecia from Mexico. She's ready to be a part of the Olympic experience. Listen to her Olympic-size anticipation. ([14.4 kbps](#) or [28.8 kbps](#) RA file)

Elycia

Age:
8

Ethnicity:
African-American

Languages:
English

Favorite Sport:
Baseball



Unable to mask her excitement, Elycia anxiously awaits the Olympic Athletes.

Given that the Internet Archive reports that these pages were first archived on January 29, 1998, it perhaps not surprising to note the missing graphic elements. Eighteen months is a lifetime for digital artifacts. Tim Lenoir is right when he assert that we're living in the “digital dark ages.” Information disappears faster than we can archive it. Digital cultural experiences have little archival value in this cosmology, in favor of the new, the next, and the future.

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1. Most accounts of this new media genre were less concerned about tracing the influence of its mass media antecedents than they are in promoting the creative possibilities the web offers to individual computer users as a home-based distribution mechanism for desktop multimedia productions. Certainly the telephone and the printing press were important antecedents in terms of the communicative aim of webcasting.
 2. Members of the Georgia Tech webcast team included: Adam Arrowood, David Balcom, Sandra Beaudin, and Mikol Graves, all of whom were students in the graduate program in Information Design and Technology at the time.
 3. See Jennifer Slack and Fred Feges, ed. *The Ideology of the Information Age* (NY: Ablex, 1987).
 4. The list of stories include: "The Flame Burns in Cartersville," July 19; "View from the Village," July 20th; "Orbital: Musically Speaking," July 21; "License to Close," and linked pages "Who You Know or Who You Pay?" July 21; "If you Build it, They will Buy: The People's Tower," July 23; "World Wide Youth," July 25; "Profile: Kevin Johnson and the Linemen," July 25; "Real Audio: How'd they do That?," July 25; "Jon Ludwig, The Puppet Master," July 26; "Where in the World are the People?" July 26; "Libbie and Will See the Games," July 27-28; "The Beginning of the Olympic Legacy: The Arts Festival of Atlanta," and linked pages, "Conversations at the Castle," and "Regina Frank: The Glass Bead Game," July 31; "The Festival of Fires" and linked pages "Gwinnett Fine Arts Center," and "John Grant" an artist featured at the festival, August 1.
 5. The feature on Apple's QuickTime VR was posted on July 20; a feature on Apple's QuickTake cameras on July 21; on animated gifs on July 22; On Object Oriented QTVR on July 23; on RealAudio on July 25; on the Apple Simulator at the Century of Motion exhibit on July 29; on QuickTime movies in the Aug 2-3 edition. In addition, the July 23 issue also featured an article on a virtual gorilla exhibit at Zoo Atlanta that begins with the Head of the Zoo gushing: "I am an Apple user, always have been. I think it's the greatest computer in the world."