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# Welcome to the web: The online community of GeoCities during the early years of the World Wide Web

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## Introduction

As the World Wide Web entered mainstream North American society in the mid- to late 1990s, GeoCities was there to welcome users with open arms.<sup>1</sup> GeoCities helped to facilitate their first steps into publishing, so they could reach previously unimaginable audiences. For the first time, users could create their own web pages without having to worry about the intimidating acronym soup of FTP, HTML, and the like. It was in places like GeoCities where users would become parts of virtual communities held together by volunteers, neighbourhood watches, web rings and guest books. These methods, grounded in the rhetoric of both place and community, helped make the web accessible to tens of millions of users.

GeoCities is dead today, leaving behind little more than its web archive. While in 1999 it was by some counts the web's *third* most popular website, today it is a holding place for Yahoo! advertisements. Saved by the concerted efforts of the Internet Archive, which has a few scrapes going back to the late 1990s, and the Herculean end-of-life efforts of the Archive Team, the digital ruins of this once mighty community today offer rich terrain for historians to explore.

Through a combination of distant, computational reading using web archival analytics platforms such as warchbase (<http://warchbase.org>) (studying websites as a collective whole, rather than as individual documents) and more focused, targeted reading, this chapter will

address the charge, put forward by several scholars (discussed later in this chapter), that GeoCities was nothing more than an unconnected assemblage of places. I explore what we can learn as we virtually stroll GeoCities' now ghostly 'streets' and 'avenues', from the child-focused EnchantedForest to the festive BourbonStreet. Here, many early web users teased out their relationship with the web, building a foundation for the blogging and social networking explosion that would take place in the new millennium. Together they built a vibrant, interconnected virtual city.

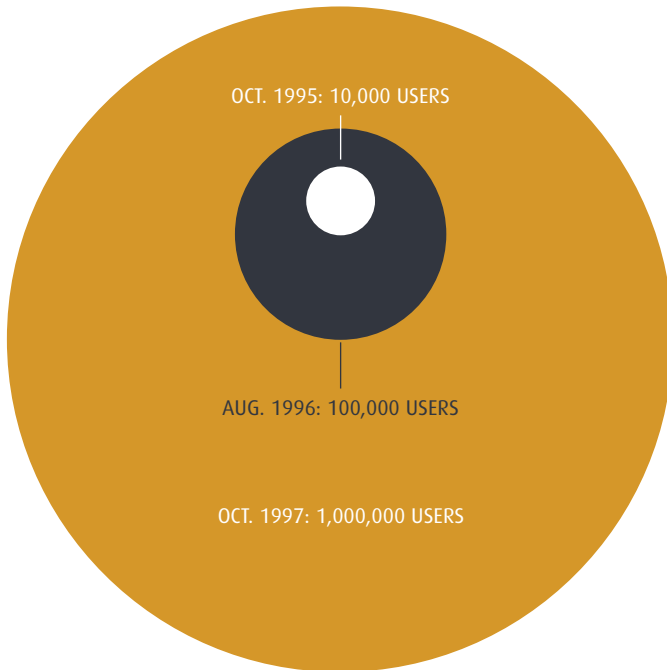
## What was GeoCities? A brief history of its rise and fall

What would eventually grow to be millions of websites had simple beginnings. In November 1994, in Beverly Hills, California, a web server flickered to life. David Bohnett, fresh from the software industry and heartbroken by the recent death of his companion, launched a new venture – Beverly Hills Internet – that would let users create their own free web pages. The geographically specific name spoke to the desire for community that lay at the heart of the undertaking. As Bohnett later recalled (as quoted in Ocamb, 2012), 'We all have something to share with each other, which enriches both their lives and ours as well.' Some of the impetus came from Bohnett's own background; he told the *New York Times* (Hansell, 1998) that a lot of what he did had 'to do with being gay and part of a minority that had not had an equal voice in society.' While Beverly Hills Internet was not alone in providing free web hosting, part of a broader trend that included competitors such as Tripod.com (1994) and Angelfire.com (1996), its unique focus on community gave it a distinctive presence on the early web.

In the heady days of the early web, there was a marked desire among users to situate themselves on the web: it was the new 'frontier' sermonized by *Wired* magazine and exalted by technological utopians across the political spectrum, from Newt Gingrich to anarchical socialists (Turner, 2008). The geographical community metaphor meshed well with a public that was conditioned to think of GeoCities, the renamed Beverly Hills Internet, as an ever-expanding geographical space. Five weeks after GeoCities opened, it had received over 600,000 hits and by summer 1995, it was hosting 1,400 websites (Business Wire, 1995). Numbers subsequently skyrocketed (see Figure 7.1).

By mid-1998, the site was one of the top ten draws on the web and was growing by 18,000 new users a day (Motavalli, 2004).

## GEOCITIES USERS:



**Figure 7.1** The exploding size of GeoCities, 1995–1997

The media began to take notice. Echoing marketing rhetoric, commentators relied on metaphors of space and place. ‘What if you want to do more than just look at live images from Hollywood?’ asked Roger Ridey (1996) in the English newspaper *The Independent*, ‘What if you want to live there? Now you can.’ The web was no longer something understood by the public as being a passive area of consumption; it was presented as something that you could live in. Most importantly, it was easy to move in.

If Bohnett and the early web explosion represent the chronological beginning of this chapter, it is bookended by Yahoo!’s purchase of GeoCities. GeoCities went public in August 1998, its share value skyrocketing to around \$40 from its initial offer at \$17. Yahoo!, a web behemoth then best known for its directory service, began inquiring and in January 1999 purchased GeoCities for \$4.6 billion, or \$117 a share. This price helps show just how significant GeoCities was seen by many at the time. As John Motavalli (2004: 194) notes,

At the time of the Yahoo! deal, GeoCities was getting 55 million page views a day, and it was the number-three site, according to Media Metrix. Yahoo! was number one, and AOL was number two. GeoCities called the final sale price a ‘kingmaker premium.’

The purchase, however, would also herald significant changes for the site. Yahoo! scrapped the neighbourhood structure that had made GeoCities distinct – rather than having an address, users quickly moved over to URLs based on their usernames – and the site began to decline in attention and user numbers. For these reasons, this study ends then.

If the study ends in 1999, however, the story of GeoCities itself did not. It muddled along under Yahoo’s ownership, although media coverage substantially declined almost immediately after its purchase. In 1998 and 1999, respectively, *Lexis|Nexis* has 208 and 247 news items about GeoCities, by 2000 it had dwindled to only 20 and by 2003 only 7. As Yahoo! shifted their business emphasis, they decided in 2009 to shutter GeoCities and delete all user content. While they gave a few months’ notice, many of these e-mails would have gone to the e-mail addresses that users signed up to create their websites over ten years ago; there was also no export tool, and to save a website users were encouraged to manually save each page on their website. If it had not been for the efforts of the Internet Archive and Archive Team, an ad-hoc collective of guerrilla archivists, today we would have no record of GeoCities. It would have meant a large gap in our collective understanding of the early web.

As Archive Team declared, ‘Yahoo! succeeded in destroying the most amount of history in the shortest amount of time, certainly on purpose, in known memory. Millions of files, user accounts, all gone’ (Archive Team, 2009). Their torrent of what they could download *en masse* from GeoCities in 2009 forms the main source base of this chapter, alongside the regular web scrapes that the Internet Archive carried out between 1996 and 2009. It thus forms a relatively unique web archival dataset, available at <https://archive.org/details/2009-archiveteam-geocities-part1>, that lets us explore a web archive without having to use the Internet Archive’s relatively circumscribed Wayback Machine. We also received the final GeoCities scrape from the Internet Archive itself, allowing us to explore and access their web archive files directly. This chapter thus also demonstrates what we can learn from these old web archives, and that they are worth preserving.<sup>2</sup>

## Moving into GeoCities: reconstructing first web steps

GeoCities was an experiment in accessible, user-generated content. Users could fill out a straightforward template or a series of forms, making a few clicks here and there, without having to worry about credit card payments or maintenance settings. A GeoCities site was not a work of art, especially by our standards: they were clunky, text heavy, with repetitive backgrounds and garish clipart. But a site offered a powerful publishing platform, the ability to reach a large audience, and in many ways helped realize Berners-Lee's original vision of a read-write web.

For no cost, anybody with an email address could create a GeoCities page with an initial size limit of one megabyte. Accessibility helped GeoCities break a potentially vicious cycle that might have militated against widespread web usage: if people were going to visit the web, they needed meaningful content to view; but for creators to want to generate meaningful content, they needed visitors.

The real key, however, was the neighbourhood system that lay at the heart of GeoCities and to which each free website belonged.<sup>3</sup> I will discuss the neighbourhood concept in depth shortly, but in brief, the first step in establishing a site in GeoCities was to sift through the neighbourhoods one by one, reading up on the sorts of sites each welcomed. For example, the Area 51 neighbourhood welcomed 'Fanzines for Star Trek, The X-Files, The Twilight Zone', among other things.

The explicit attempt to form community through familiar space- and place-based metaphors and rhetoric was GeoCities' hallmark. This did not just take place through the neighbourhood system, although that was critical. GeoCities also attempted to link cyberspace with the 'real' world through the innovative use of web cameras placed in locations such as the intersection of Hollywood and Vine in Beverley Hills, or in Tokyo or Paris. The intent was to amplify 'the sense of place' (Business Wire, 1995). The neighbourhood approach and physical space came together at times. During the 1996 holiday season, for example, a special NorthPole neighbourhood was established for users to launch Christmas-related websites. A webcam simultaneously broadcast a Christmas tree at GeoCities headquarters adorned with comments mailed into the office by users.

The process of doing web history on the 'moving in' process is illuminating. To reconstruct what it was like for future GeoCitizens to take their first steps, we need to use a combination of technological (various text analysis mechanisms, as well as link extraction and image analysis)

and traditional research methods (from closely reading individual web pages to researching media coverage and print resources). For example, web page builders are dynamic and thus eluded the period's web crawlers, so I relied upon traditional print resources.<sup>4</sup>

To create their pages, users had two options back in 1996: they could use a simple template-driven creator, or if they knew HTML they were welcome to use the advanced editor to create a more sophisticated site. The former was akin to the 'Wizard' feature of a Microsoft product (for example, in Word, you might fill out a series of questions to generate a letter template, such as 'who is this letter being addressed to?' and 'what is your address?'). Users entered filenames such as `index.html` for the home page and anything else for subsequent ones, selected their background and text colours, and then entered the text they wished to see in their body, header and footers. The format accepted HTML input if a user wanted to make something bold or italicized, but also encouraged simple text.

The network effects inherent in GeoCities quickly manifested itself. Users who wanted to learn *how* to use HTML were sent to other users to learn the basics, specifically to <http://GeoCities.com/Athens/2090> (hereafter, I will refer to sites by their neighbourhood and address alone). Athens/2090, 'The "Home Page" Home Page' (`html_help`, 1996), provided straightforward instructions on how to code basic HTML, as well as helpful comparisons to the then-dominant WordPerfect word processing program, which also used markup.

By fall 1998, there were five new ways for users to create their web pages: from the form-based and sponsored 'Intel.com Web Page Wizard' to the GeoBuilder. GeoBuilder was the most significant, helping to democratize free website design and setting the stage for what GeoCities would become. It was a what you see is what you get (WYSIWYG) editor, which let users drag and drop elements such as a text box or a graphic onto the page or template. Occupying similar market space to that of products such as Microsoft's FrontPage, GeoBuilder mixed artistic expression with ease of use. There were many templates to choose from (incidentally similar to today's Wordpress themes): technology focused, academic, social, professional resume/CV, travel diary, personal advertisement, a food website, or a wedding theme. GeoBuilder continued to develop, adding new templates and other options, into 1999, when Yahoo!'s acquisition of GeoCities saw it converted into a downloadable program called PageBuilder (Hill, 2000; Karlins, 2003).

From all of this, we can see the degree to which GeoCities presented itself as an accessible alternative to other web development

options at the time. What can we learn from this massive collection of public speech about online life in the mid- to late 1990s? In the web archives, we can see the broad contours of a community emerge.

## Using web archives to explore community

Exploring a dead collection of websites can be eerie, reminiscent of an abandoned cityscape in the films *The Andromeda Strain* or *28 Days Later*. Websites are frozen in time: old guest books, dead links, stopped hit counters, animated GIFs long since pulled from the live web. Yet in these frozen artefacts are the former building blocks of virtual communities, something Internet pioneers saw as early as 1968 as leading to greater happiness because ‘the people with whom one interacts most strongly will be selected more by commonality of interests and goals than by accidents of proximity’ (Licklider and Taylor, 1968: 30–1).

Community, both offline and online, is difficult to define; communities come in different shapes, from the ‘imagined’ communities that draw people together by shared media practices (Anderson, 1991), to physical and virtual ones. Constance Porter (2004) defines virtual communities as follows:

an aggregate of individuals or business partners who interact around a shared interest, where the interaction is at least partially supported and/or mediated by technology and guided by some protocols or norms.

Other scholars contest this emphasis on virtual communities as marketing tools; Lori Kendall (2011) argues that virtual communities are a means to facilitate deeper human connections. In *The Virtual Community*, Howard Rheingold (2000) advanced the following definition of virtual communities:

social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace.

He noted in particular the emergence of a gift-based economy, where people give their time without direct reward – although, perhaps, down the road somebody will help them out. It is not enough to simply declare

that community exists, in a website splash page or a press release; it must be enacted, received and perceived as such by members.

In short, community requires effort. As Stephen Doheny-Farina (1996: 37) notes,

A community is bound by place, which always include complex social and environmental necessities. It is not something you can easily join. You can't subscribe to a community as you subscribe to a discussion group of the Net. It must be lived. It is entwined, contradictory, and involves all our senses.

The sheer ease of joining GeoCities, of firing up PageBuilder and moving into the neighbourhood, has led some scholars to dismiss out of hand the notion that it was a community. Christos Moschovitis (1999) is frank: simply offering web space and email was insufficient, he argues, noting that most joined for the free storage, rather than community elements. True. Certainly many, probably the majority, of GeoCities users were just like that: they signed up, created websites, and did not interact with fellow users *any differently* than they would have with users from other parts of the web. In this they may have been more reminiscent of the suburbanites of Robert Putnam's *Bowling Alone* (2000) – people isolated without sharing civic associations.

Some evidence bears this out. A writer for the online newsmagazine *Salon*, Stephanie Zacharek, discovered this the hard way when she arrived at her new online home in 1999:

Welcome to my home at GeoCities. I live at 9258 Fashion Avenue, in a neighborhood appropriately called Salon. I moved in here earlier last week because I was told that 'Design, Beauty and Glamour are the toast of Fashion Avenue,' but so far there's not a whiff of glamour to be seen – my neighborhood is a ghost town of hundreds of empty pages, half-started websites and vacant lots; only a handful of the members seem to be at all interested in fashion. (Zacharek, 1999)

While Zacharek was a bit late for the heyday of community, as my explorations reveal here, her point is an important one and captures what may have been a not-uncommon experience. Many users never did get past the 'Under Construction' stage of a brand-new site, as Jason Scott's (Scott, Unknown) collection of construction images aptly reveals.



Yet for a non-trivial minority, we can see traces of virtual community in this web archive. This community structure largely endured between 1995 and 1999; when Yahoo! acquired GeoCities and rearranged the community structure, users moved toward ‘vanity’ websites (such as <http://geocities.com/~janesmith>) rather than neighbourhood addresses. But during that earlier time, GeoCities sought to be a new kind of web place for its new arrivals: a place where you learned how to make a first website, with the possibility of friendly neighbours and helpful advice, and might even win a few blinking awards to help bolster your confidence. The web might have seemed infinitely big, but that did not mean you could not have a home there.

## Homesteading on the electronic frontier

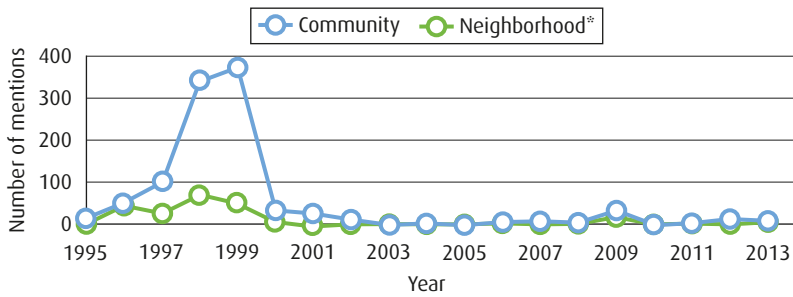
The central metaphor that governed new GeoCities users was homesteading. It was a consciously chosen metaphor, in keeping with the spirit of the frontier and the heady expansionary rhetoric so common during the web’s early days. Think of the Electronic Frontier Foundation, for example, or the many other instances recounted in Fred Turner’s *From Counterculture to Cyberculture* (2008). GeoCities’ (1997a) central administration defined a homestead in four ways:

1. a dwelling with its land and buildings occupied by the owner as a home.
2. any dwelling with its land and buildings where a family makes its home. – v.t.
3. to acquire or settle on (land) as a homestead. – v.i.
4. to acquire or settle on a homestead. – home’sstead’er, n.

Each homestead was located in a neighbourhood. This meshed well with the visions of founders Bohnett and John Reznar (the latter joined the team in August 1995 as the technical builder), who saw in ‘neighbourhoods, and the people that live in them, the foundation of community’ (Sawyer and Greely, 1999: 57–9).

The neighbourhoods and the concept of community were indelibly linked. Surveying a corpus of 1,000 such entries in the Lexis|Nexis database reveals the rise and fall of these two concepts (see Figure 7.2).

The marked decline after 1999 is not surprising; when Yahoo! purchased GeoCities that year, they phased out the neighbourhoods for new entrants. As Olia Lialina (2013), a professor of new media and co-author of the blog *One Terabyte of Kilobyte Age*, has noted: ‘Users became isolated’. By 2003, users were asked what topic they were interested in when



**Figure 7.2** Relative frequency of keywords ‘Community’ and ‘Neighborhood’ in Lexis|Nexis database, 1995–2013

they created their websites – from alternative lifestyles, computers, the military, pets, romance, science, women and so forth – not to build community, but for the purpose of targeted advertisements (Karlins, 2003). The new GeoCities was very different from what had come before.

Let us return to the late 1990s, when the system was in full swing. When users arrived to create their sites, they were presented with a list of the neighbourhoods they could move into. We have already encountered a few of these places. Those writing about ‘education, literature, poetry, philosophy’ were encouraged to settle in Athens; political wonks in CapitolHill; small businesspeople or those working from home in Eureka; and so on. Some neighbourhoods came with restrictions and explicit guidance, such as the very protective and regulated EnchantedForest, for young children who wanted their own websites. Others were much wider, such as the largest neighbourhood, Heartland, which focused on ‘families, pets, hometown values’. Each enjoined users to settle in, and gave lists of sample topics and websites (in Heartland, for example, in addition to the above three topics, pages about genealogical research and local events were also encouraged).

Popular neighbourhoods filled up quickly, necessitating a sprawl into the ‘suburbs’: Heartland/Plains or Heartland/Hills were two such destinations. Each neighbourhood or suburb was limited to 9,000 sites (addresses ranged between 1,000–9,999). By 1999, Heartland had 41 suburbs, from the Acres to the Country, the Grove to the Woods. Each had its own support apparatus: community leaders, coding guidelines, web rings, property standards and so forth. Content standards were maintained by the ‘Neighbourhood Watch’, which was centrally managed by GeoCities (1997b): ‘If you notice any of your neighbors not following our policies, please let us know’, volunteer watchpeople were directed.

After finding a neighbourhood, users selected their actual address – akin to a street number. If the user wanted ‘6084’, for example, they had to choose the neighbourhood and then see if that particular number was free. If it wasn’t, they could either choose a new number or move to one of the emerging suburbs – such as the ‘Plains’ of Heartland. While the dynamic website that allowed users to pick addresses was not preserved by the Internet Archive, Gordon Graham’s *The Internet: A Philosophical Inquiry* (1999) provides a contemporary description:

Within these townships, each user has a ‘homesteading site’; there are users who ‘live’ next door and others who ‘live’ further off. All these features can be represented visually. Typically the icons supplied reflect something of the spirit of the township. So, for instance, in *Pentagon* the homesteads are military-style tents, while in *Enchanted Forest* (a site for and by children) the homestead icons are ‘cute’ cottages. (Graham 1999: 148)

Neighbourhoods, addresses and representations as cottages and tents all comprised the spatial dimension of GeoCities. It was founded on finite land: only one person could hold Heartland/8132, for example, and if addresses ran out suburbs were necessary. The single megabyte of storage came with only one major proviso: ‘In order to keep the neighbourhoods a lively and enjoyable place, we would like you to move in within a week after you have received your password and confirmation Email’, GeoCities’ management advised in a FAQ archived by a user (GeoCities, 1996e). ‘Your neighbors would prefer to live next door to someone who has moved in rather than a vacant lot.’

These instructions had significant conceptual overlap with the idea of homesteading. There was only one way to gain more property: continual improvement. *Money* could buy you more storage – you could upgrade to 10 megabytes with the GeoPlus program – but it would not buy you a second address. For that, you had to be a good citizen. ‘Part of your responsibility as a resident of GeoCities is to keep your home page fresh and exciting’, GeoCities (1996c) explained to those seeking a second site. ‘If your original page is kept current, and is consistent with the theme of the neighborhood, you may apply for a second GeoCities address.’ John Logie (2002) explored this point in an article in *Rhetoric Society Quarterly*, noting that metaphors within GeoCities aped the central points of the 1862 Homestead Act (US).

The neighbourhoods held GeoCities together. As of late 1996, there were 29 of them. They were an attempt to cluster users based on

pre-existing interests, to facilitate greater traffic within and throughout the community, and to encourage members to use the advertisement-supported infrastructure pages.

## Neighbourhood cohesiveness

Exploring the digital ruins of GeoCities today presents unique challenges for historians who use web archives. How can we extract meaningful historical information from such a large set of information? We cannot read every single page, or even a reasonable sample of them. Even if it were possible to view every single picture or read each line of text, by the end of the journey we would have forgotten most things. Computational methods are necessary.

These can range from counting words, which can be useful for the relative frequency of a given word but obscure the context in which a word appears, to more sophisticated approaches such as topic modelling. The latter finds clusters of words that appear frequently together, or topics (Blei et al., 2003). For example, when we write about our families we use words like *husband*, *wife*, *kids*, *pets*, and *home*. Or when we write about work we use words such as *productivity*, *office*, *commute*, *pain*, and *boss* (Jockers, 2011). Latent Dirichlet allocation, or topic modelling, uses a sophisticated mathematical algorithm to go through documents and put the words back into the baskets from which they came. A researcher reading emails in the future might then see two bags of words: *husband*, *wife*, *kids*, and *office*, *commute*, *pain* and call them *home* and *work*, respectively. Without reading individual emails, researchers can gain a sense of what the user wrote about.

We can use a similar method with the neighbourhoods of GeoCities. In Table 7.1, I list the top two topics for a specific subset of neighbourhoods. Neighbourhood place descriptions are from the GeoCities page that invited users to choose which neighbourhood would suit them best. Table 7.1 offers three representative selections.

The data demonstrates that such correlation was not universal, however. The EnchantedForest remained child focused, due in part to the efforts of engaged community leaders in a context of fears around online child exploitation. Pentagon expanded beyond its initial aim of connecting widely deployed and constantly moving military members: it became a forum for military history and for activism and political discussion. Heartland, a significant GeoCities hub, advanced a

**Table 7.1** Topics in three selected GeoCities neighbourhoods

Neighbourhoods	Top Two Topics in each Neighbourhood
Athens <i>'... based on education, teaching, reading, writing and philosophy.'</i>	people things time person sense life man work world human good mind soul make nature body case made point part parts goddess witch healing incense witchcraft love energy pagan shaman witches sun spirit protection light circle earth religion
EnchantedForest <i>'A place for and about kids. Games, stories, educational sites, and homepages created by kids themselves.'</i>	blue page school home day kids clues fun-time year room birthday family mom jordan play great party friends jq battalion show st jonny horse batterymored lt artillery camp sailor army field col pingue war area quest
Heartland <i>'A family oriented neighborhood that represents Main Street in cyberspace. This is the place to find parenting, pets, and home town values.'</i>	people time children book years child information year work make life school person system state world books government good family county church home years information st city born state war school mrs history birth records great cemetery death

\*Topics appear in the neighbourhoods that they should appear in.

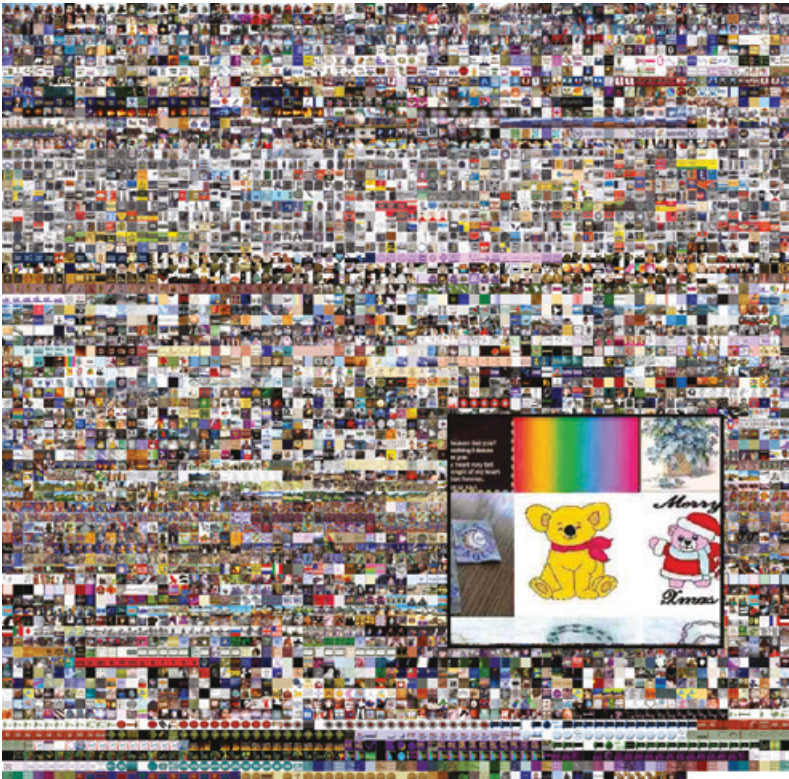
particular vision of 'family': focused on the Christian faith, domestic issues, and – significantly – genealogy.

Other metrics also establish significant degrees of cohesiveness. Images extracted from GeoCities give us a sense of how the neighbourhoods worked, as Figure 7.3 demonstrates.

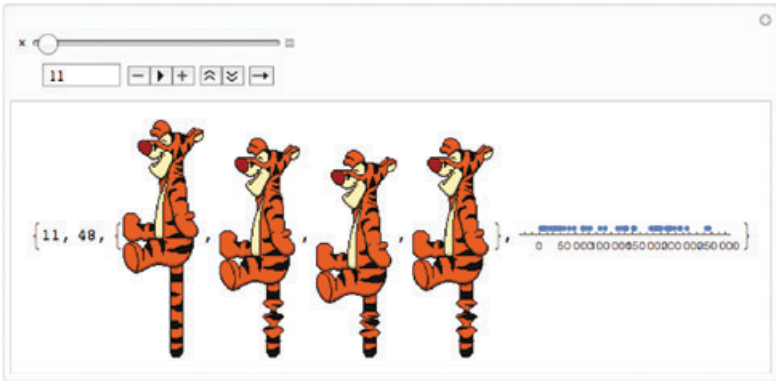
Drawing on the methodologies of Lev Manovitch (2012), I extracted every image from each neighbourhood and arranged them as montages. They need to be used with caution, of course: presented with a randomly arranged montage, we tend to privilege up-down relationships over left-right relationships, even if they are identical (Montello et al., 2003). Yet, there is clear evidence of borrowing and cohesiveness across these communities: the children's community really did have children's pictures, and so forth.

Indeed, if we examine image borrowing – how images travelled around the network – we get results such as those in Figure 7.4.

The animated GIF of Tigger hopping up and down is the 11th most popular image in the EnchantedForest, appearing 48 times. The graph to the right shows that the image is evenly distributed across



**Figure 7.3** Montage of 5,690 images extracted from the EnchantedForest



**Figure 7.4** Image borrowing in the EnchantedForest

the tens of thousands of individual files that make up the community. People borrowed from each other. This holds true for many GeoCities neighbourhoods. Popular culture communities contain grabs from popular television programmes and movies. Athens, for example, contains a disproportionate number of black-and-white images of historical figures, pointing to the community's educational and philosophical underpinnings.

Finding what we expect to find according to GeoCities' classification of these neighbourhoods is meaningful. Despite the massive array of websites, each zone is relatively homogenous. Heartland was for families; SiliconValley was for computer nerds; and Hollywood dealt with movies, television shows and the like. How did this happen, though? How did these remarkably homogenous communities form online? The neighbourhoods were held together primarily through three methods: community leaders, guest books and community awards. In them, we see the tendrils of community that ran through these websites.

## **Beyond imposed community: the peer-driven glue**

The first method by which GeoCities built communities was 'community leaders'. They helped new users settle into their homesteads, edited newspapers, reviewed websites and provided an accessible human face for people figuring out the World Wide Web. While they provided different services in different communities, in general at the very minimum they were frequent participants in chat rooms, newsgroups and made their emails accessible to users (GeoCities, 1996b). GeoCities (1996d) presented these leaders as a response to user demand – 'many homesteaders have asked us how they can contribute to the development of the GeoCities communit[y]' – but it is unclear whether their role evolved organically or whether the GeoCities leadership team created it. These leaders were selected volunteers who were delegated responsibilities ranging from responding to user emails, to identifying particularly promising sites, policing content guidelines, and acting as the primary intermediary layer between GeoCities management proper and users.

It is testament to the power of community that so many leaders took to the program with such aplomb. Volunteers received few perks: a bit more disk space and a few GeoPoints that could be redeemed for consumer products such as GeoCities clothing. Yet as the program itself admitted, these were miniscule compared to the work asked of

the volunteers: 'If that's the only reason you want to be a leader, think again. It's hard work. Many of our leaders spend several hours each day answering questions and helping their neighbors set up their sites' (GeoCities, 1996d). Applicants were selected based on the quality of their own GeoCities pages, past leadership experience, and an essay on why they would be a good candidate.

After making it through the selection process, the volunteers were assigned a given block of addresses to steward. Some neighbourhoods assigned leaders based on their addresses: for example, if in March 1997 you resided in the 2650–2999 block of the Heartland neighbourhood, your leader would be 'Alison (AKA Alaithea)', who was an expert in a host of things ranging from HTML to Microsoft's Internet Explorer (GeoCities, 1996b). Alison's own website provided information on 'color, layout, navigation, graphics & more', and sensible advice on how to create an attractive website (with still valid advice on the ideal size of text blocks and limiting length of pages). She also provided galleries of attractive backgrounds, even allowing users dynamic previews for their own home pages (Alaithea, 1997). She was the model of a community leader: helpful, generous, accessible and welcoming. Alison also shows how GeoCities provided community leadership roles to women users: in Heartland, 15 of the 25 community leaders were female, drawing on their use of pronouns in their third-person descriptive biographies.

Other neighbourhoods operated on an 'at large' model: each street did not have a dedicated leader but was served instead by a general pool of leaders. Much of Athens, for example, operated on this model (GeoCities, 1996a). Universally, however, these leaders offered help with basic HTML and design and offered themselves as the first contact when users had complaints.

As GeoCities bridged the gap between the earlier model of bulletin board systems – where users could 'yell for SysOp' and actually make the administrators' computers beep to grab their attention – and the more open, impersonal world of the web, these community leaders formed a critical connective tissue. If we download all the descriptions of these 1,040 community leaders and look at keywords, we get a sense of what they offered (see Figure 7.5).

Word clouds – where the more often a word appears in the examined text, the bigger it is in the cloud – are not perfect. For one thing, they obscure context. But they do convey the overall dimensions of the program without bogging us down in a word frequency chart.

Beyond offering help, community leaders facilitated connection by playing an integral part in conferring GeoCities' website awards.



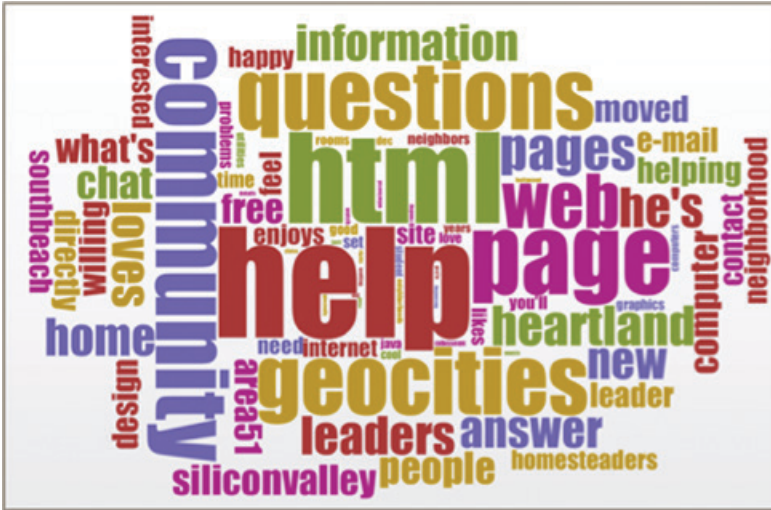


Figure 7.5 Word cloud of all community leader pages, 1996–1997 over six crawls. Generated by <http://voyant-tools.org/>

A trapeze through GeoCities reveals a surprising number of awards, in various shapes and sizes. Official committees of community leaders awarded some, such as the ‘Heartland Award of Excellence’, voted upon by the volunteer leaders. To get these, new users would submit their web pages for review, a vetting based on whether they adhered to community standards (from having multimedia to having clearly written text), and they would win an award if their pages met a certain threshold. In assigning these awards, community leaders had the ulterior motive of ensuring that sites fit into the prevailing community, that they used efficient and well-written HTML, and that they merged meaningful content with JavaScript and multimedia pop-ups (see, for example, Augusta Golf Neighborhood, n.d.; RainForest Community Leaders, n.d.). Community leaders had explicit instructions to find the ‘best sites’ in the neighbourhoods to showcase. Other awards were unofficial: users exchanged them to help cement community. Through these exchanges, an internal awards system emerged.

Users could usually click on an award to learn more about it and easily find opportunities to submit or give awards. In any case the community leaders made it clear that potential awards were only a review away. Recipients would often, but not always, receive a badge to adorn their page, as seen in Figure 7.6.



**Figure 7.6** Awards taken from a random assortment of websites. From top-left, clockwise, ‘Annika’s Award’ is from Heartland/Hills/9073; ‘Chris’s Award’ from Petersburg/1098; ‘Heartland Heartbeat Award’, from Heartland/Lane/8195; ‘Best of the “Web ’98”’, MotorCity/Downs/3148; ‘Tropics Choice Award’ from TheTropics/5555; ‘Heartland Award of Excellence’, from Heartland/Bluffs/8336

These awards helped to make community tangible; they were a constant reminder of the webs that tied sites together, woven directly into GeoCities’ fabric.

If awards celebrated the ‘best’ sites and provided a way to exchange favours between users, guest books served as another, less bombastic but equally important, connective tissue between community members.

Seemingly omnipresent throughout websites of the late 1990s and early 2000s, guest books were an important community-building tool for users on the GeoCities platform. They were more than just a way to thank or complement a particularly useful or enjoyable website: for that, there was email. If that mode of communication occupied the 'private' side of the communication spectrum, guest books came in somewhere just short of 'public'. Guest books were not discussion forums: they did not support threaded discussion, replies to authors and so forth.

Coupled with the ubiquitous web page counter (a small set of digits on GeoCities sites that increased by one every time a visitor arrived), guest books were a prime means of evaluating a site's reception. They took various shapes and sizes. At a minimum, they were user-generated snippets: visitors could click on the guest book to fill out a short form with their name, website, email, physical location and a few comments. Users savvy with HTML could incorporate an image into their comment, which led to quite a few advertisements spamming these books.

Why were guest books ubiquitous across GeoCities? A major reason was the decision to include them in the default list of simple add-ons to your website. They were an easy way to facilitate user engagement: designing forms yourself required a level of technical know-how. To install a guest book, members merely had to navigate to the add-ons page, click on 'guest book', provide their site details and then make a few customizations: colour, greetings and questions (GeoCities, 1998). By default, visitors were asked for their name, URL and email address, and guest book owners could add up to nine custom fields.

Guest books played a critical role in community. In her study of personal home pages, carried out in 1998 and published in 2000, sociologist Katherine Walker placed them within the broader genre of web self-presentation. Seeing guest books as akin to the web page counter, Walker argued that they functioned 'as a testament to popularity and a confirmation that others regard the created page and the identity it represents as worthy' (2000: 106). She held that they also played a significant role for the person leaving a comment:

Leaving a message with an address might lead to response not only from the guest book's owner, but also from others reading the guest book. As such, the audience may potentially receive a greater reward from filling in a guest book than from just sending a private email message. Guest books are a form of role support. (Walker 2000: 106)

Guests often left invitations to visit their own web pages, discussed mutual interests, and provided public email addresses to help them build up a network of contacts and engage the GeoCities public.

Comments were almost universally positive and personalized. When we run textual analysis on these corpuses, overwhelmingly the most common words to emerge are *my, you, I, your*, and other such informal pronouns. *Great, love, enjoyed, thanks, wonderful*, and other hyperbole were common instances of gratitude and expression. People liked to thank each other for their content. In more developed form, some of these guest books resembled elaborate questionnaires. Drawing on selective keyword-in-context explorations of the guest books, my research found that questions included, in order of popularity: favourite music, favourite animal, favourite book, favourite website, favourite food, favourite singer, favourite TV show and so forth. Within communities focused on a particular animal, singer, actor or band, the questions became more focused: favourite Shania Twain song, Keanu Reeves movie or dog breed. Through these questionnaires, community was reinforced on a continuous basis.

The URLs that users entered in their guest books are also useful for the web archiving explorer – they represent a sort of calling card indicating where the visitor was from. Were the users coming from all over the web? Or were they GeoCities users commenting and discussing on neighbours' sites? To explore these questions, I extracted all the URLs mentioned in a large sample of guest books. These were mostly the entries provided for the URL or 'my URL' part of a guest book, as well as additional websites that people mentioned in their comments. In total, I extracted 8,147 URLs. In general, GeoCities link structures do not indicate that the community was more cohesive than any other major part of the web – one study compared it to Stanford University sites, which of course have more links to each other than to external sites (Kamvar et al., 2003). Yet when it comes to guest books, we certainly see strong community among users: 43% of links in the guest books came from other GeoCities domains. Given the large numbers of users who would not have their own web pages, or have hosting elsewhere, this is suggestive at least that among a subset of active GeoCities users – those who commented on and provided guest books – there was significant engagement with each other's websites. Unfortunately, as we do not have longitudinal data, it is difficult to see how this might have waxed and waned over time, but it is another factor that helped to contribute to a sense of community.

## Conclusions: web archives and the story of community

Between 1994 and 1999, GeoCities users carved out an active online community, preserved as remnants among web archives. This community did not include every user by any means, but rather a sizeable minority of users. Those who sought it out could find meaningful connections within GeoCities: from the community leaders who welcomed them, to the awards they might receive and proudly display on their sites, to the guest books they signed and the invitations they issued.

Through these web archives, limited as they are and circumscribed by a single scrape, we can learn a lot about these digital places. They are the ruins of a robust web community that mattered to the lives of many people. Community leaders volunteered their time, awards were given, web rings connected sites both from necessity and from a desire for connectivity, and neighbours dropped by geographically situated websites to leave friendly messages for other users. GeoCities provided a sense of belonging to a significant minority of users.

There are limits, of course, to this kind of scholarship. Much of the evidentiary basis for this chapter relied upon media coverage of GeoCities, which could have been confused and more importantly susceptible to the dot.com hype cycle. Better contextualization could come from seeing GeoCities within the broader sweep of the 1996–1999 web archive, as well as seeing what connections GeoCities had with the rest of the early web. As the Internet Archive prepares to re-launch their Wayback Machine in 2017 with some form of full-text search, this kind of research will become more accessible. However, access to the underlying WebARChive (ARC and WARC) files that comprise these holdings would be essential to facilitate the sort of research done on GeoCities in this chapter at scale.

Even within GeoCities, however, this chapter also presents the study of these early web archives as a legitimate window onto the lives of the early web and of community more broadly. As a youth and childhood historian by training, I am currently beginning to explore the EnchantedForest more closely, reflecting on what it means to have thousands of historical sources left by children and youth – who, throughout the sweep of historiography, rarely leave sources and need to be understood by adults. Or, a more serious look at the gender dynamics of GeoCities would help inform contemporary discussions around contemporary technical and gaming communities. In short, a serious book is waiting to be written here.

It also sheds light on the broader questions of online communities, of which GeoCities was just a part. GeoCities was and is unique in two respects: first, in its ease of use for everyday web users in the mid-to-late 1990s; secondly, in the ability to download the entire torrent from the Internet Archive to explore as a cohesive whole. It is an unparalleled resource of downloadable content.

Ultimately, the pre-Web 2.0-era is a fascinating one, showing us how user engagement and contributions took shape before the rise of social media. The same desire for connectivity was there, expressed through content, hyperlinks and guest books. Instead of showing appreciation through a 'heart' on Twitter, or a 'like' on Facebook, a handmade Microsoft Paint award was there: more meaningful, perhaps, given the level of detail needed to successfully spread this sort of community. In any case, among the ruins of GeoCities we can see how new web users teased out their relationship to the web. They were not alone but were part of a larger community. Web archives present an interesting opportunity to look back to the days between 1994 and 1999 and to how – spread out across time and space – users figured out what the web would mean to them. GeoCities, a massive assemblage of non-commercialized public speech, presents an interesting introduction to the history of the early World Wide Web – and to the potential found within web archives.

## Chapter 7 Notes

- 1 While there is a global story to be told of GeoCities, for reasons of feasibility I am largely constraining myself to North American conclusions: drawing on North American media reactions, for example, and the literature that emerged around it there.
- 2 The focus of this chapter rests on the substantive findings from the GeoCities archive, rather than method. Our analysis was generated in part through the warbase platform, a web archiving analytics platform led by Jimmy Lin (University of Waterloo) available at <http://warbase.org>.
- 3 A later option would allow people to purchase ‘vanity’ addresses, such as <http://geocities.com/~janesmith>.
- 4 The basic HTML editor is discussed extensively in Sawyer and Greeley, 1999. We know less about the GeoCities experience of 1996 than we do about its subsequent 1998 evolution, as the Internet Archive could not preserve the dynamic content of the web form. We have snapshots of individual pages, as well as user reflections on how easy the basic editor was. In any case, it is clear that a user without technical expertise could create a simple template-driven website with personalized textual content quite easily.

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