

BETTER READ THAT AGAIN: WEB HOAXES & MISINFORMATION

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Pending authoritarian control, misinformation on the internet has been from the beginning, is now, and will continue to be a problem. Take, for example, the site martinlutherking.org. Far from being what it seems, this site is a prototype counterfeit web site, sponsored as it is by the white hate group StormFront. Posted on the web to coincide with the swell of research on King preceding his holiday, it specifically targeted student research, emphasizing such spurious accusations as Dr. King's sexual forays with three white women the night before his assassination.

The fact that anyone can publish on the web creates an environment of heady freedom, but also one often sorely lacking in quality control. The entire array of agents, editors, publishers, and professional readers that scrutinize the majority of published text—from newsletters to encyclopedias—are often absent from internet content. (Which, for the savvy web user, is not entirely a bad thing. Although much of what is on the web is opinion, biased, even wrong, such information is sometimes quite useful.) This lack of quality control thus requires the internet user to assume the filtering responsibility, and with the exception of librarians, information professionals, and some academics, many of us are ill-equipped to do a capable job of it. This Dialogue will hopefully shed some light on the problem and offer some advice on how to recognize hoax from fact.

CATEGORIES

The categories used here are certainly not airtight, and there is overlap; nonetheless, the categories will be defined as:

- 1. Malicious counterfeit sites.** Like the Martin Luther King site mentioned above, a true malicious counterfeit attempts to pass itself off as an authentic site much as a counterfeit \$20 bill attempts to enter the economy as currency. These sites mimic the look and feel of the original site or attempt to supplant them. Malicious counterfeits are most often sponsored by hate groups. These groups, while well within their free-speech rights to host information on the net, are disseminating information that is designed to be hurtful and discriminatory.
- 2. Parody and spoof sites.** While also counterfeit, these sites attempt to use humor to poke fun at an original site, product or organization. While their intention may be political, they are typically not malicious, and their "misinformation" is fairly obvious.
- 3. Product sites.** These are legitimate .com sites that slant their information toward selling a product. Some of these sites are subject specific, and include medical and business sites, areas where misinformation can cause critical damage.
- 4. Hacked sites.** Those sites that have been modified by hackers for any number of reasons.

MALICIOUS COUNTERFEIT SITES

Counterfeit sites are the most problematic of hoax internet sites. The Martin Luther King site alluded to above is an example of a site that is pretending to be something it is not, a Trojan horse so to speak. Counterfeit sites disguise themselves as legitimate sites for the purpose of disseminating misinformation. They

are rarely attempting humor or spoof, and even when humorous they are often misconstrued. The intentions of counterfeit sites are as varied as the sites themselves. A sampling follows.

IHR.ORG

The Institute for Historical Review is a self-proclaimed non-ideological, non-religious, and non-political organization, that is actually a front for holocaust revisionism. While the site touts the number of Ph.Ds it has on its staff, and claims to maintain high standards in the pursuit of exactitude in history, and to be “sincere, balanced, objective, and devoid of polemics,” the exact opposite is true. This site propagates one of the most deceitful and brutal myths around—that the holocaust didn’t occur. This is prime example of the kind of pernicious nonsense that can found on the web.

MARTINLUTHERKING.ORG

The Martin Luther King site mentioned earlier disseminates hateful information about one of the greatest African American leaders of our era while pretending to be, on the surface, an “official” Martin Luther King site. The homepage depicts a photograph of King, his family in the foreground, and links titled “Historical Writings,” “The Death of a Dream,” and “Recommended Books,” among others. There is also a link to a pictorial review of the civil rights period. Clues to the real nature of the site can be found in the e-mail link to vincent.breeding@stormfront.org (a white power organization) and the web design by Candidus Productions link. The Candidus Productions homepage is decorated by white power symbols and states “Welcome to the Candidus Productions web site! We provide various web applications for pro-White people online.”

Unfortunately, most visitors do not normally click e-mail and web design links. Even the underlying pages, although obviously advocating white power (the recommended books include *My Awakening* by David Duke), can easily fool less sophisticated web users because the information is presented in a “factual” manner, cites “government documents” and is professionally designed to appear sympathetic to King.

MAKAH.ORG

A model counterfeit site was makah.org (no longer extant). This site appeared during the controversy over the Makah Indian Tribe’s harvest of Grey Whales. (The Makah’s official tribal page is makah.com.) The

Makahs, a Washington coastal tribe, had won federal appeals to harvest a few Grey Whales in an attempt to resurrect tribal tradition. They immediately came under attack by environmental and animal rights organizations. One of these protest groups created a website that mimicked the authentic tribal site. Behind its look-alike homepage however, the counterfeit site contained anti-whaling information and called the Makahs murderers. The Makah whaling issue attracted national press, and the counterfeit site began getting many hits from surfers who assumed that .org was the real domain for the Indian tribe.

Once behind the site, there was no attempt to disguise the bias of the information, and the third person personal pronouns and verbal attacks clued the reader immediately to the site’s agenda. However, on the web, getting someone to the message is a primary achievement. The fake Makah site is now gone, the official site is still up, and the Makahs are still harvesting grey whales. (Elaine Cubbins of the University of Arizona Library has created an insightful and thorough guide to evaluating Native American websites (u.arizona.edu/~ecubbins). She notes that potential for tribal misrepresentation arises when an individual tribal member or faction within the tribe creates a site and claims it is representative, or when a site is counterfeited.)

Checking site registration is another way to determine validity (register.com can provide this information), but it can also be tricky. For example, makah.org is registered to the Makah Nation in Vancouver, Canada while makah.com is registered to the Makah Tribal Council, Neah Bay, Washington. Only further checking reveals that the tribe headquarters is located in Neah Bay, Washington, and the Canadian address is a front.

PARODY & SPOOF SITES

While sites that seriously counterfeit a legitimate organization’s homepage are relatively rare, there are a huge number of sites that parody or spoof a person, company or organization. The difference between parody (a satirical imitation) and spoof (a light parody) is slight and a matter of degree. Yet because the satire is fairly obvious, there should be little occasion to mistake their content for truth. Unfortunately people often seem more gullible with web information than they might when it comes to more traditional informational sources.

Parody sites are often political, and typically employ humor to get their message across. Often, they can be

extremely useful to researchers looking for antithetical or alternative information. They often feature a name that is a spin-off of the legitimate name, such as HastaLaVista (Alta Vista) Microshaft (Microsoft) or Washington Pissed (Washington Post), and often capitalize on URLs that seem legitimate (gwbush.com). Indeed, domain grabbing and squatting has accounted for enormous traffic to a number of counterfeit sites. Such sites can be particularly problematic when underlying pages are retrieved by a search engine and appear as discrete bits of information divorced from the site as a whole. For example, many stories exist about “news” from *The Onion* (onion.com), a satirical site, being used and cited in academic research. The probable cause, aside from sloppy work, is the appearance of an Onion story in a list of hits without reference to its home site.

An excellent and extensive directory of these sites have been compiled by the Dutch site Aanvang.net (aanvang.net/parody.htm), featuring such categories as TV Shows, Portals/Search Engines, ISPs, and Microsoft, which has earned their own category containing links to nine sites. Some specific examples of parody sites follow.

BUSHCAMPAIGNHQ.COM

There have been a number of fake George Bush sites, and some publicity surrounding them. One extant site, the George W. Bush Campaign Headquarters is a spoof that admits in its top-of-the-page introduction: “For those of you who are new, a word of caution: this is not the real, official George W. Bush Election Committee’s site.” Another counterfeit site, gwbush.com, was attacked by Bush as malicious. His campaign filed a complaint with the Federal Election Commission, and delivered a cease and desist order demanding the parody material be killed. The parody site received 6,451,466 hits during the first 25 days of May 1999, thanks in part to the story’s front-page treatment by *The New York Times* online edition. Meanwhile, the real George W. Bush Web site received only about 30,000 hits in May, according to Bush spokeswoman Mindy Tucker (ABCNEWS online). The authentic George Bush site is georgewbush.com.

LME.MANKATO.MSUS.EDU/MANKATO/MANKATO.HTML*

Another popular parody site is the Mankato, Minnesota page, a site that depicts Mankato Minnesota as a tropical paradise and described in detail by LaJean Humphries in the May 2000 *Searcher*. The Mankato site

was created by Don Descy, who teaches instructional media and technology courses, including web evaluation, at Mankato State University. One would be hard pressed to see how this site could fool anyone, yet the reaction, printed on the site, by the Mankato Area Chamber & Convention Bureau is damning. “For some time your project on the Internet has troubled us. Though you claim it was done in the name of education many are laughing at our community rather than with it.” Apparently people do show up in Mankato expecting palm trees. The real Mankato page is www.ci.mankato.mn.us/index.php3.

Unlike its twin sister Mankato, the New Hartford, Minnesota homepage (lme.mnsu.edu/newhartford*), is not obviously a fake site. The biggest clue is in the URL that points to an academic server. Missing this clue however, one would need to consult an atlas to ascertain it is a fictitious town.

WHIRLEDBANK.ORG

The Whirled Bank is an excellent example of a parody site that provides politically alternative information to the mission and accomplishments of the World Bank, whose actual site is worldbank.org. The whirled Bank homepage is counterfeit except for the name. The Whirled Bank site is registered to Global Arcade, a group involved with education in global justice activism.

PRODUCT SITES

While .com sites can offer reliable information, they typically compromise themselves by filtering out any information that could damage product sales. The sneakier commercial sites don’t bother to mention the fact that they are selling anything, and an unsuspecting researcher can enter such a site, extract information and run with it, often without even realizing they are being given only a select set of data and facts. And while there are many degrees of misinformation on the web, from deliberate to accidental, serious to comic, obvious to subtle, the consequences are perhaps nowhere as severe as in the areas of health and business. Erroneous health information can quite simply lead to serious injury and even death. Bad business information can result in financial collapse.

SCIENCE & HEALTH

Health information is perhaps among the most problematic of all information on the web. Teenagers and the elderly are most susceptible to misinformation in this area, and more and more seniors are getting online, capitalizing on what they see as a plethora of health information, particularly with regard to drugs, disease symptoms, cures, alternatives, and so forth. The web site *Senior Focus Radio* (seniorfocusradio.com) recently ran an article claiming that a recent survey of seniors indicated “their biggest concern about cancer information on the internet was misinformation.” Specific examples follow.

CAFEHERPE.COM

CafeHerpes is a very slick site that promises “Everything you’ve wanted to know about genital herpes but were afraid to ask.” Its owners, SmithKline Beecham, carefully hide, and their product, FAMVIR, is waiting for discovery in the “Expresso Bar” area of the site. While the information posted may be credible, and to their credit they do offer some citations, it is certainly not complete, and it lures (with its catch phrase “were afraid to ask”) the embarrassed consumer into a trusting relationship with both the site, the product, and the information contained on the site.

IOA.COM

At the top of its page, this site claims: “There is no cure for the common cold. There is a very simple cure for cancer.” (ioa.com/~dragonfly/news/kelley.html). A number of sites like this can be retrieved by anyone searching “cancer and cure” or “cure for cancer” on an internet search engine. And while some highly respectable and authoritative medical websites have emerged, medical misinformation is more accessible today than it has ever been.

NANCYMARKLE.COM

Early in 1999 the so-called “Nancy Markle Letter”, a piece really written by Betty Martini, a leading aspartame activist was submitted to over 450 e-mail groups. The letter claimed that aspartame (a sweetener used in such products as NutraSweet) was responsible for multiple sclerosis and systemic lupus. The author claimed she had just testified before the EPA, and the letter contained numerous scientific “facts.” Victims of these diseases who read and believed the letter were

horrified. Responses from the Multiple Sclerosis Society, National Soft Drink Association, and the press (among them *Time Magazine* Health columnist Christine Gorman, 2/8/99) rushed to dispel the myth. Yet like a previous e-mail warning of carcinogens in shampoo, this letter germinated a following of people who believe Martini’s claims. Other popular health myths propagated on the net are: antiperspirants cause breast cancer, cooking in aluminum pans causes Alzheimers, Costa Rican bananas carry flesh-eating bacteria. These and similar myths can be checked at reliable public health sites, such as The Centers for Disease Control and Prevention (cdc.gov), Quackwatch (quackwatch.com), or the sites listed at the end of this article.

VIRUSMYTH.COM

The AIDS Myth Site (virusmyth.com), registered to the Institute for Investigative Medicine, Netherlands, is an example of information that represents an extreme minority view but is not necessarily malicious. Citing a number of prominent scientists, including Kary Mullis, Nobel Prize for Chemistry, the site claims that there is no proof that the HIV virus causes AIDS, that AIDS is not sexually transmitted, and that people die because they are poisoned to death by antiviral drugs. This group additionally claims their views are victimized by censorship.

The organization, the Group for the Scientific Reappraisal of the HIV-AIDS Hypothesis, who seem to be behind much of the site, came into existence as a group of signatories of an open letter to the scientific community. The letter (dated June 6, 1991) has been submitted to the editors of *Nature*, *Science*, *The Lancet* and *The New England Journal of Medicine*. All have refused to publish it. In 1996 The Group was able to get a letter published in *Science*.

The site is over 500 pages long, and represents a mammoth effort to argue their claims. Because of its “authority” a site like this could represent a source of dubious and potentially destructive information, or it could represent a rare doorway into another legitimate, but unpopular perspective.

BUSINESS

The volatility of markets can undermine anyone’s faith in the rationality of our economy, and nowhere is volatility more obvious than on the internet.

BLOOMBERG.COM

In April of 1999 a counterfeit website of bloomberg.com, a highly regarded business news service, touted a US \$1.35 billion acquisition of PairGain Technologies of California by ECI Telecom of Israel. The ruse sent PairGain shares soaring 31 percent on April 7, but the stock fell back to earth after the story proved false. The frenzy started when a financial discussion page on Yahoo included a link to the fraudulent web site. For further information see WiredNews (wired.com).

To counteract the rash of business and investment misinformation on the net, the Securities and Exchange Commission (SEC) has what it calls a “Cyberforce” that surf the net for suspicious sites and postings, particularly those pointed out by investor complaints. In 1999, the SEC received and responded to 73,908 complaints and questions, an increase of nearly 39 percent compared to 1998. Their page (sec.gov/consumer/jalerts.htm) has sound information on avoiding a number of internet scams.

HACKED SITES

Although usually ephemeral and obvious, hacked sites are legitimate web sites whose content has been altered. Many hacked sites are simply tagged with a slogan or statement; for instance: “This site hacked by....” Hackers (or crackers) often want to brag and leave identity clues for other hackers. Hacked sites are usually corrected immediately, although some hacks will require the site being pulled down and rebuilt which can take a few days. Recently, Nike’s site was hacked. The group that did it wrote “global justice is coming—prepare now,” and included a “call to action” at a meeting of the World Economic Forum in Melbourne, Australia. There are groups that specialize in political hacks, including some that target only white power sites.

Two other types of web piracy are website theft and URL “hijacks.” Theft occurs when someone appropriates, in part or whole, a website, typically for the purpose of exposing the viewers to advertising. This can be done by lifting the original material and adding additional content, or by framing the stolen site then displaying the original content surrounded by whatever ads or other content the thief wants to display. Hijacks are URL redirects to unwanted sites. A user will click on a familiar URL only to be taken to an unwanted site. Since exposure on the web is paramount, redirect-

ing from a well-known site can result in millions of hits before the redirect is fixed, exposing millions of people to unwanted information or ads.

An incredibly extensive archive (1996-1999) of hacked sites exists at Rewted Network Security Labs site (rewted.org/cracked/) . Also check at ZDNet AnchorDesk (zdnet.com).

WHERE TO GO FOR HELP

INTERNET HOAXES.

urbanlegands.miningco.com/science/urbanlegends/library/blhoax.htm*

The directory featured at UrbanLegends uses the codes: Hoax = False, deliberately deceptive information, including pranks & jokes; UL = Urban Legend: a popularly believed narrative, most likely false; Rumor = Unsubstantiated information forwarded with gusto; Junk = Flotsam and jetsam of the Net.

NONPROFIT.NET/HOAX/HOAX.HTML

Don’t Spread that Hoax is one of the oldest and most reliable of the hoax busters. They also feature a directory, as well as links to useful authoritative resources (such as Thomas for legislative information) for checking information. However, they are not as comprehensive as one might wish.

SCAMBUSTERS.ORG

Scambusters is a comprehensive site that has been endorsed both by Yahoo and Forbes, among others. They feature an e-zine, mail group, story of the month, directory of scams, tips to avoid scams, testimonials, ways to stop spams, phony and real viruses, and much more. The site is a bit difficult to navigate but well worth the look.

SNOPE.SCOM

SNOPE.S, otherwise known as The San Fernando Valley Folklore Society’s Urban Legend Pages, is one of the largest collections of urban legends and hoaxes on the Internet. The hoaxes and legends are all coded with colored dots indicating: true, false, undetermined, and of indeterminate origin.

CIAC.LLNL.GOV/CIAC/CIACHOAXES.HTML

The Computer Incident Advisory Capability (CIAC) of the U.S. Department of Energy produces an updated list of hoaxes. Though not an extensive list, they specialize in hoax internet viruses, and also a detailed and interesting history of hoaxes on the Internet.

FRAUD.ORG/WELMES.HTM

The National Fraud Center is a consumer's center for fraud, including internet fraud. While they don't have a list of fraud sites, they give overviews of techniques, industries, demographics, and include an online form for reporting suspected fraud. Invaluable information covers the most common internet frauds: auctions (which they currently list as the worst), business opportunities & franchises, credit card safety, online credit repair, employment services, online magazine solicitations, online travel offers, pyramid schemes & illegitimate multi-level marketing, scholarship scams, sweepstakes & prize offers, and work at home offers.

OTHER TIPS

The spectrum of misinformation on the net will continue to proliferate until the Internet is strictly regulated, which seems unlikely, and probably not even desirable. The best protection one can have against misinformation is adapting a critical stance toward all information on the web. Be aware of the source of the information. Always look for obvious clues in the URL. A .com or .org typically provides biased information. The bias may be slight, and it may be one you agree with, but it's usually there.

If you encounter a URL with a slight deviation in the name, or is a .org when you think it should be a .com be alert. A ~"name" reflects a personal site, and as such will represent personal views only.

On the site itself, look for comic or incendiary language, lack of citation or authority, lack of currency, a particular bias towards audience or slant of information. Check suspicious domain names with an agency like register.com. Use non-print sources for verification when needed.

Search smart. Use the advanced capabilities that a number of search engines now provide, such as domain searching. And use specialized search engines and directory services, whose holdings are likely to be selected by librarians or other authorities in the field.

Always check underlying pages, top level pages (if at an underlying page) and suspicious links to verify what you are getting is the real item. Regularly visit web sites

that post hoaxes. And finally, realize that misinformation is often contextual, and can possibly prove useful, given the context.

CONCLUSION

There is a general feeling among many academics that information on the web is suspect, and not nearly as credible as that appearing in print sources. Hoax sites don't do much to alleviate this mindset, but one person's misinformation can be another person's gold mine. Hoax sites offer a number of possibilities; for instance, many offer alternative perspectives to topics that have an almost hegemonic truth. Even hate sites can provide useful information in bringing to light material that is typically censored from most public discourse. Only a truly free society can allow free exchange of ideas, regardless of how reprehensible they might seem.

Hoax sites offer "teaching moments," and in fact a number of them have been created for this very reason. The best of them will make us question why we believe some things and not others, eliciting a self-examination of how we view the world that is critical if we are going to truly analyze information. By learning how to deconstruct hoax sites we become empowered, and can share this knowledge. And finally, some hoax sites are absolutely hilarious—*The Onion* being a good example.

While web literacy is demanded for intelligent Internet use, web literacy is really not qualitatively different than information literacy. All information has bias and has to succumb to rigorous evaluation. And remember, while it is important to know what you're getting, misinformation is often in the eyes of the beholder.



NOTES:

This article has been adapted from a longer version that appeared in *Searcher*, Volume 8, number 8, September 2000.

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Unless otherwise noted (*), all URL sites start with www.