Surf's up: Deep-Diving Through Hurricane Katrina'sUnsearchable Digital Past

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Abstract

Almost since their inception, social media platforms have been valued as acritical resource for sharing news and information during times ofcrisis; as such, several strategies for archiving that information have been put into place. No such strategies had yet been put in place in the late 1990s and early 2000s, during the advent of web-based blog publishing, the precursor to today's social media. The fact that much of this user-generated historical text is subject to random erosion has largely escaped notice. A qualitative analysis of the archives of more than 300 Gulf-coast-based blogs published before, during and after Hurricane Katrina suggests that an important part of that history has already been lost.

Keywords: Hurricane Katrina, web erosion, blogs, internet archive, digital archives

Introduction

In the early 2000s, the digital revolution of the prior decade had largelypassed over the Deep South. New Orleans, in particular, did not yet extendvery deeply into the online realm. That the digital divide was so wide inNew Orleans could be blamed in equal measure on crippling poverty and onthe city's deep love affair with the past. The number of people in NewOrleans with access to computers was among the lowest in the country; onein six adults were functionally illiterate (Plyer, 2003). Oral traditions, food,music – those were the connecting threads, not sentences on a computerscreen.

All that changed in late August of 2005, when Hurricane Katrina becameone of the first epic news events to be collectively and digitally documentedon a mass scale. Blogging in particular played an unprecedented role in thepost-Katrina information landscape, both as a critical news source in thedays and weeks immediately following the storm, and as a catalyst for theregion's recovery in the months and years that followed (Pignetti, 2010).

What blogs did during Hurricane Katrina was comparable to Twitter'sfunction during the Arab Spring – they gave voice to a groundswell of frustration, forced a wider adoption of new media among the local population, and helped to bridge a widening chasm between members of themainstream press and the people they were covering.

The 'in-between' Information Ecosystem

Prior to Hurricane Katrina, New Orleans' anomalies – and, for that matter,those of the entire Gulf Coast -- were of little interest to the national media.In 2005, the network bureau closest to New Orleans was five hours away inAtlanta. Despite this, crews very quickly mobilized to provide 24-7 coverage– some of it stellar, much of it award-winning, very little of it immediatelyuseful to the victims and evacuees themselves.

For those fortunate enough to have regular access to a computer in thestorm's immediate aftermath, blogs functioned as a public forum form ourning. "When the hurricane hit, our community shattered like something thrown against a wall, and little shards flew all across the country," wroteDavid Olivier, on his popular blog Slimbolala. He continued, "We have friends from Colorado to Boston, people we were sitting next to last week. A web of communication instantaneously sprang up in the aftermath with all of us constantly calling,

emailing, getting in touch however we could share information…We see the images on television, see our neighborhoods, our neighbors. We can only watch" (Olivier, 2005).

That predicament – of being rendered passive and powerless– created awidely shared resentment among those for whom doing was not yet anoption. Blogs became a vehicle to express outrage, a means of findingsolidarity, and a galvanizing force for 'citizen journalists' (whether or notthey'd ever aspired to that title) to reclaim traditional journalism's watchdogrole – in other words, they allowed the watchers to become witnesses.What made the New Orleans blogosphere so robust post-Katrina was thisnewfound mission of enforcing a kind of crowd-sourced accountability. Thatkind of constant, unrelenting scrutiny had never before been applied withsuch force, or such precise focus (Pignetti, 2010; Miller, Roberts, &LaPoe,2014; Ostertag& Ortiz, 2015).

Hurricane Katrina also became a transformative, legitimizing moment forblogging as a platform, which was the latest in a long line of communicationtechnologies to be espoused for its democratizing potential. Blogs put intohigh relief a pivotal media moment, when journalists were writing morefreely in the not-quite-official, in-between space that blogging provided, andnon-journalists became an increasingly critical force in crafting the "official" record.

"There is plenty of garbage on the roads for strays to eat and therefore I findmyself not caring all that deeply about how the animals were affected,"wrote the former Biloxi Sun-Herald reporter Josh Norman on the blog he co-authored with his colleague Mike Keller, Eye of the Storm. Both Normanand Keller shared in the Sun-Herald's Pulitzer Prize for its storm coverage,but sentiments like this one never made it into the "official" news story:"Maybe in a few months I'll be worried how Flipper and Lassie fared, butnow, I'm more worried about what my neighbor on a Section 8 housingallowance and welfare is going to do" (Norman, 2005).

The subversion of mainstream news by bloggers during Hurricane Katrinawas well in evidence on a national scale as well. Blogs allowed media titansto say so much more than they would dare to air on their traditional platforms. Longtime sports columnist Peter King, for example, feltobligated to use his Sports Illustrated blog to weigh in after a visit to

thedisaster zone in 2006. "I'm a sportswriter," King asserted."It's not my job to figure how to fix what ails the Gulf Coast. But the leaders of this society are responsible.

And they're not doing their jobs. I could ignore everything I saw and go back to my nice New Jersey cocoon, forgetting I saw it. And I know you don't read me to hear my worldviews. But I couldn't sleep at night if I didn't say something" (King, 2006)

As media analyst David Carr observed at the time, "The memes ofmainstream coverage - heroes and victims, right and left - did not situatewell over Katrina" (Carr, 2005). Well-known bloggers with largefollowings -- like Josh Marshall of Talking Points Memo and Andy Carvin -- constantly challenged those memes: "The rhetoric of Katrina is that of awar zone, not a natural disaster," wrote Carvin. "We may not want to frameit using the language of war, but we lack the language to frame a disaster ofthis magnitude otherwise" (Carvin, 2005).

Traditional news organizations that had resisted web publishing – whetherout of fear of losing credibility, or for fear of over-stretching their limitedresources – embraced blogging for the first time during Hurricane Katrina bynecessity. The deluge of information wouldn't wait for the old news cycle.While CNN, ABC News, CBS News, MSNBC and USA Today and otherslaunched blogs dedicated to Katrina-only coverage, most local bloggerswere writing without any assumption or expectation of reaching a largeraudience – and, perhaps, free to be less measured in tone precisely becausetheir audience wasn't being measured.

Anonymous muckrakers with handleslike "Dambala" at American Zombie were helping to steer the news agenda.Unofficial community ambassadors who had access to reliable information and large mailing lists – people like ACORN founder Wade Rathke, and Houma Tribe Historian Michael Dardar – stepped into editorial roles,becoming cheerleaders and civic leaders in the early efforts to organize andplan for rebuilding. Emails and official correspondence were forwardedmany times over, published and reposted on blogs, contributing to the onlineinformation ecosystem. This post from Dr. Scott Delacroix, a physicianturned-first responder during the crisis, was hurriedly emailed to familymembers two days after the storm hit. By the time he got back online, threedays later, his story had been posted, republished and broadcast all over theworld:

I ran into one of my Charity Hospital patients under the I-10.

He had beenevacuated from an apartment building in Mid City

with 150 seniors withoutwater. He said they were in dire need

of help. We spoke with the air trafficcontroller (military) and

talked with Gordon from Austin City EMS.Coordination between

the state police and the communications trailer fromAustin was

our best asset. Still no FEMA. No transportation and nocoordination

other than among ourselves on the ground. We were allotted a

BLACK HAWK helicopter to fly water into the building. I hate flying.

TwoEMS technicians from Austin City, 4 state police officers from

Houma,Louisiana, armed with AR-15 semiautomatic rifles, myself,

Nick the EMTfrom New Orleans, and the ER doctor from Baton Rouge… Bulletproof

vests on, we loaded thechopper with water and MREs and

took off. This was the first (and I hopeonly time) I would be seeing

patients with a bulletproof vest, a .38 revolverin my scrub pants, and a

white coat with .38-caliber cartridges jingling in mypocket. We flew

into the city around 6:00 pm. Amazing site of destructionand flooding.

The city where I grew up was under water (Delacroix, 2005).

Method

In 2014, anticipating a one-dimensional replay of Hurricane Katrina coverage during the 10th anniversary of the event, the archives of more than 300 Gulf Coast-based blogs with posts about Hurricane Katrina were analyzed. A cross-section was created of online-only entries that were written between August 2005-August 2007, one that revealed a layer of post-Katrina life that wasn't typically picked up or by traditional news outlets or preserved in any official record.

There were no search-optimized metrics for determining what to include in this cross-section: the posts weren't necessarily the most-viewed, most-emailed, or the most commented-upon. Some were stumbled upon serendipitously. Callouts were posted on email listservs and multiple social media outlets, and suggestions were submitted from scores of current and former Gulf Coast residents about blogs they remembered, and posts they thought were worth

resurfacing. Many were suggested not by the writers themselves, but by other bloggers in their blogroll, revealing the social media network that existed even before the term 'social media' was coined. At least one-third of those early leads proved to be dead-ends, which frequently came as a shock to the authors themselves.

"The site that featured my column has changed their site completely and most of my articles from that period don't exist," wrote Deborah Cotton, a well-known New Orleans blogger, during an email interview in August 2014. Dozens of others shared in her dismay. Eileen LohHarrist, whose partner Greg Peters wrote and illustrated the popular Louisiana blog Suspect Device until he died in 2013, wrote in an email exchange in 2014, "I've been looking but have not unearthed the Suspect Device trove. This weekend I'mgoing to look thru stuff I have in storage to see if I can find anything I printed there."

Results

Many of the post-Katrina sites that have since disappeared were thankfully retrievable via the Internet Archive's Wayback Machine. Reading through those posts today, it's still possible to feel the immediacy of that epic moment. — before citizen journalism even had a name. Do-it-yourself writers had created an online text that was immediate, responsive, and specific to the needs of their traumatized and dispersed community. Joshua Cousin, while writing his "Notes from The Book" blog from a public computer set up at the Houston Astrodome, became a point person for the New Orleans marching band community; likewise, Creative Alliance of New Orleans director Jeanne Nathan, sending out email newsletters from a temporary home in Baton Rouge, started organizing her community of cultural ambassadors.

But the individual pieces of that text are accessible only because the specific URL was known – all that's left is a snapshot of the page; its context is not recreated. In other words, if exactly what was missing wasn't already known, there would be no indication that anything was missing at all.

This raises the question of whether a predominantly search-determined navigation of the web buries our past beyond the point of possible excavation, even if the pages themselves are still "live." When fewer than 2.4 percent of web users browse past the first 10 pages of a search engine result (only five percent browse past the first five pages; fewer than .29percent make it

to page 20), what good is knowing that a search for "Hurricane Katrina blog" yields "about 2,230,000 results"?

The Googled web is one built on a fallacy of empirical data – the 2, 230,000 results delivered by a keyword search leads us to assume the web has been searched in its entirety. We never even know what's not listed. We trust that the comprehensive research has already been conducted for us.

Discussion

While the role of blogging and the rise of the citizen journalist duringtimes of catastrophic crisis and societal upheaval has been well-documented(Howard 2011; Earl &Kimport. 2011; Daniels, 2015), the fact that much ofthis user-generated historical text is in danger of disappearing has largelyescaped notice. What was an organic -- and for the most part, free -- exercise in expression and information dissemination is now subject torandom erosion. Data gets left behind during content migrations to upgradedplatforms, or it is simply lost between server shuffles and shutdowns. As thepop culture writer Carter Maness recently lamented, "We assume everythingwe publish online will be preserved. But websites that pay for writing arebusinesses. They get sold, forgotten and broken. Eventually, someone flipsthe switch and pulls it all down" (Maness, 2015).

Deciding whether it's worth resurfacing those digital remnants -- words thatwill otherwise be forever relegated to Page Not Found status -- is left toindividuals, most of whom expect that everything they've ever poured intothe web can be pulled back out again.

Several technology companies have attempted to provide solutions forpreserving social media users' digital legacy -- not so much out of a sense ofaltruism but with a keen awareness of how disruptive the disappearingcontent would be to all those connected to the deceased.

In March 2015, Facebook added a Legacy Contact function, which allowsusers to appoint an executor of their Facebook content (Skillings, 2015).Google offers a similar feature with their Inactive Account Manager. Twitter is now being archived by the Library of Congress – a boon for boththe company and for historians, given that almost 30 percent of recordedhistory

shared over social media has already disappeared, according to astudy of information shared via Twitter during the Arab Spring (Salah Eldeen & Nelson, 2013).Academic publishing doesn't fare much better, with one study suggestingthat one in five academic articles cite broken links – a phenomenon referredto as "reference rot" (Klein, Van de Sompel, Sanderson, Shankar, Balakireva, et al., 2014).

No similar studies have yet been conducted with regard to blog-basedinformation generally, nor on the online information shared duringHurricane Katrina.

Sounding the Alarm

In 2010, software developer and writer Dave Winer tried to warn web usersof the magnitude of the problem in a post on his Scripting blog, where heurged developers to focus as much attention on preserving content as theydid on creating easy-to-use web content tools. "We've created a problem ofmonumental proportions, the hole gets deeper every day, and people are justbeginning to come to grips with its scope" (Winer, 2010).

While the issue has garnered some mainstream media attention (Economist,2012; Streitfeld, 2014; Lepore, 2015) there are still no easy solutions(Taylor, 2014), and few ways to "future-safe" web-based work. What'sneeded, Winer suggested, is "an endowment, a foundation with a long-termcharter, that can take over the administration of a web presence as a trust --before the author dies" (Winer, 2010).

Such a foundation has yet to be established. However, a consortium offoundations – including the Ford Foundation, John D. and Catherine T.Mac Arthur Foundation, Knight Foundation, Open Society Foundations andMozilla Foundation – recently launched the "NetGain: Working Together for a Stronger Digital Society" initiative, one that does not explicitly statedata archiving as one of its priorities, but does acknowledge that a more reliable web archive would be in the public interest (Ford Foundation, 2015).

Internet Archive founder Brewster Kahle estimates that web pages typicallylast about 100 days before they change or disappear. In an address deliveredto the NetGain tech conference in February 2015, he called for a new andimproved version of the web, one based on a truly distributed system that ismore secure, more private and more reliable. "And this time the

Web should have a memory," Kahle said. "We'd build in a form of versioning, so theWeb is archived thru time. The Web would no longer exist in a land of the perpetual present" (Kahle, 2015).

Conclusion

In the days when web "surfing" was more common than web searching, itwas via organic connections, and implied – not monetized – endorsements (by way of hyperlinks) that someone navigated their way through the ever-expandingmaze.

The writer Nicholas Carr was not speaking specifically about Googlesearches in his Atlantic essay "The Great Forgetting" – but his warningsabout how our overreliance on automated processes erodes our memorieswould seem to apply. Carr writes: "Computer automation severs the ends from the means. It makes gettingwhat we want easier, but it distances us from the work of knowing. As wetransform ourselves into creatures of the screen, we face an existentialquestion: Does our essence still lie in what we know, or are we now contentto be defined by what we want? If we don't grapple with that questionourselves, our gadgets will be happy toanswer it for us" (Carr, 2013).

The web developer MaciejCegłowski described a similar digital existential crisisin a talk entitled "The Internet with aHuman Face," which he delivered to the 2014 Beyond Tellerrand webdesign conference in Du sseldorf, Germany. "I've come to believe that a lot of what's wrong with the Internet has to dowith memory,"Ceglowski stated."The Internet somehow contrives to remember too much andtoo little at the same time, and it maps poorly on our concepts of howmemory should work…Anyone who works with computers learns to feartheir capacity to forget. Like so many things with computers, memory isstrictly binary. There is either perfect recall or total oblivion, with nothing inbetween. It doesn't matter how important or trivial the information is. Thecomputer can forget anything in an instant. If it remembers, it remembers for keeps" (Cegłowski, 2014).

While anyone attempting to re-collect the lost web certainly faces an uphillbattle, surely the effort itself -- of saving snapshot reminders of a time, andcontextualizing events that many assumed, wrongly, would be impossible toforget -- is well worthwhile.

Funding

References

Anonymous. (2012).Bit rot.*The Economist,*28 April. Available at:
http://www.economist.com/node/21553445

Carr, N. (2013).All Can Be Lost: The Risk of Putting OurKnowledge in the Hands of
Machines. *The Atlantic*, 23 October. Available at:
http://www.theatlantic.com/magazine/archive/2013/11/the-great-forgetting/309516/

Carvin, A. (2005).CNN, Katrina and the rhetoric of war. In: Katrina Aftermath. Available at:
http://katrina05.blogspot.com/2005/09/cnn-katrina-and-rhetoric-of-
warzone.html(accessed 1 June 2014).

Cegłowski, M. (2014).The Internet with a Human Face. Report for *Beyond Tellerrand*, 20
May. Dusseldorf, Germany.Available at:http://idlewords.com/bt14.htm

Cotton, D. (2014).Big Red blog.E-mail interview conducted 10 August.

Delacroix, SE. (2005).In the Wake of Katrina: A Surgeon'sFirst-HandReport of the New
Orleans Tragedy, *Medscape General Medicine*, 7(3), 56. Available at:
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1681680

Miller, A., Roberts, S. & LaPoe, V, (2014).*Oil and water: Media lessonsfrom Hurricane
Katrina and the Deepwater Horizon disaster*. Oxford: University Press of Mississippi

Earl, J. &Kimport, K.(2011).*Digitally Enabled Social Change:Activism in the Internet Age.*
Cambridge, MA: MIT Press.

Howard, P. (2011).Forget me net, not. (2014) Newsweek Global, 163(2), 1.*The Digital
Origins of Dictatorship and Democracy:Information Technology and Political Islam.*
New York: Oxford University Press

Lepore, J. (2015).The Cobweb.*New Yorker*, 90(45), 34.

Kahle, B. (2015).Locking the Web Open, a Call for aDistributed Web. Report for the Ford
Foundation NetGain Conference, Toronto ON, 11 February. Available
at:http://blog.archive.org/2015/02/11/locking-the-web-open-a-call-for-adistributed-
web/

King, P. (2006). Readers e-mails on draft, the truth about NewOrleans, *Sports Illustrated* 12
May.Available at:
https://web.archive.org/web/20060512081449/http://sportsillustrated.
nn.com/2006/writers/peter_king/05/02/mmqbte/index.html(accessed 2 April 2015).

Klein, M., Van de Sompel, H., Sanderson, R., Shankar, H., Balakireva, L., et al.(2014)

Scholarly Context Not Found: One in Five Articles Suffersfrom Reference Rot.*PLoSONE* 9(12): e115253. doi:10.1371/journal.pone.0115253

Ford Foundation. (2015).*Leading Foundations Join Together to Launch Initiative to Build a Stronger Digital Society*. Available at:http://www.fordfoundation.org/newsroom/news-from-ford/940 (accessed 10 February 2015).

Lueck, T. (2014).Internet Archive: Digital Library of Free Books, Movies,Music, and Wayback Machine/The Internet ArchiveCompanion. *American Journalism*, 31(2), 2 doi: 10.1080/08821127.2014.905381

Maness, C. (2015). All My Blogs Are Dead. In: *The Awl*.Available at:http://www.theawl.com/2015/02/all-my-blogs-are-dead (accessed 2 February 2015).

Norman, J. (2005). Eye Of The Storm. In: Dancing with Katrina. Available at: http://dancingwithkatrina.blogspot.com/2005_09_01_archive.html (accessed June 1 2014).

Olivier, D. (2005).Notes from the Diaspora. In: Slimbolala. Available at: http://slimbolala.blogspot.com/2005/09/notes-from-diaspora.html (accessed 2 April 2015).

Ostertag, S.F., and Ortiz, D.G. (2015). 'Katrina Bloggers Activate!': TheLong-Term Effects of Digital Media on Civic Participation. *Sociological Inquiry*, 85(1), 28 54.doi:10.1111/soin.12060

Pignetti, D. (2010).*Writing to (Re)New Orleans: The Post-Hurricane KatrinaBlogosphere and Its Ability to Inspire Recovery* PhD GraduateThesis, University of San Francisco, USA. Available at: http://scholarcommons.usf.edu/etd/3437

Plyer, A. (2003).Orleans Parish Data and Information Pre-Katrina. In: Data Center Research. Available at: http://www.datacenterresearch.org/prekatrina/orleans/index.html (accessed 15 June 2015

SalahEldeen, H.M. & Nelson, M.L. (2013).Resurrecting My Revolution:Using Social Link Neighborhood in Bringing Context to theDisappearing Web. In *Proceedings of Theory and Practice of Digital Libraries* (TPDL 2013) pp. 333-345 Paphos, Cyprus

Skillings, J.(2015).Facebook to allow 'legacy contacts' for when you die. In: CNET. Available at:http://www.cnet.com/news/facebook-to-allow-legacy-contacts-for when-you-die (accessed 12 February 2015).

Streitfeld, D. (2014). Internet Archive Aims to Preserve All ofCreation. *New York Times*, 3
    November, B6.

Taylor, A.L. (2014). Personal Archiving: Preserving our Digital Heritage.*Technical Services
    Quarterly* 31(4), 431.doi:10.1080/07317131.2014.943081

Winer, D. (2010).Leslie Harpold's archive. In: Scripting.Available at

http://scripting.com/stories/2010/01/23/leslieHarpoldsArchive.html (accessed 3 November
    2014).