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Polluted and Predictive, in 133 Words

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Mél Hogan and
M.E. Luka

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and M.E. Luka

Never forget that Google collects data for a commercial purpose. It is not a public archive. Besides this, the Google search engine is getting more and more 'polluted', coming up with useless and predictable search outcomes.

– Geert Lovink¹

For the *Society of the Query Reader*, we present here segments of a conversation done via email, inspired by interventions into Google 'suggestions', collected and compared over time. The discussion is between communications and media consultant and doctoral scholar M.E. Luka (Montréal and Halifax, Canada), and digital curation postdoc and media scholar-practitioner, Mél Hogan (Colorado University, Boulder, U.S.), collaborators on various projects including recent Korsakow² workshops and developing theories of archival production.³ For both, professional and scholarly interests are deeply intertwined and more generally concerned with creativity, the arts, and digital media and the archive. Showcasing a collection of 133 words selected by Mél Hogan, and captured through a series of screen grabs in April 2010, 2011, 2012, and 2013, M.E. Luka leads a dialogue that revolves around the parameters of this 'polluted' and predictive archive, the process and display of the political poetry it generates, and the choice of (the 133) words that constitute the basis of this search.

Conceived for the web, an earlier iteration of this interview can also be found in a 'clickable' version online at melhogan.com and <http://moreartculturemediaplease.com/interview-mel-hogan-and-google-query>.

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1. Geert Lovink, 'Back from Gent: Notes on Memories of the Future', Net Critique blog, 26 June 2010, <http://networkcultures.org/wpmu/geert/2010/06/26/back-from-gent-notes-on-memories-of-the-future/>.
 2. For example, Korsakow workshops held at the Brakhage Center at the University of Colorado in Boulder, 2013. See, <http://brakhagecenter.com/?tag=korsakow>.
 3. Mél Hogan and Mary Elizabeth Luka, 'Archiving Art Spots with Mary Elizabeth Luka', No More Potlucks, vol. 25, (January/February 2013), <http://nomorepotlucks.org/site/archiving-artspots-with-mary-elizabeth-luka-mel-hogan>.

2013
<p>woman is: the future of man that meant to insult me a woman the earth the reflection of her man a danger cat too pretty to work the weaker vessel a devil beheaded</p>

All tables are representations of queries performed on Google (in bold) and the suggestions Google gives.

M.E. Luka: What is Google Suggest?

Mél Hogan: Though refined over the years, Google Suggest has been an experimental feature since 2004. Currently, not every user is privy to the same suggestions by Google; it's therefore needed to address the intentions of the algorithm and its discrimination based on location, language, as well as a series of other factors. According to Google's blog, terms pertaining to nationality (but not religion) are removed from suggestions, as are hate- or violence-related queries, personally identifiable information, porn and adult content, legally mandated removals, and piracy-related items. But reading through this archive, it's incredibly violent, so it would be great to see how Google defines violence and how it polices it.

Everyday words become defined through user queries, feeding into a weird, increasingly funneled and frenzied, though not entirely random, pool of associations between stereotypes, lyrics, memes, as well as sincere searches.

As you type in Google's search bar, its algorithm predicts and displays search queries based on users' search activities, including the contents of web pages indexed by Google (known as Google Suggest or Autocomplete). While this drop-down list of calculated suggestions completing user queries has spawned several memes, inspired game-like interaction, and invited scrutiny over the so-called collective archive it generates, I want our conversation to go in an exploratory direction and expose some of Google's suggestions over the course of the last four years.

ML: OK, then let's start with the words. You really picked 133 words? Why 133? What are they? Are they thematic?

MH: By way of free association and without counting how many words were going to be part of this archive, the 133 words I selected to track in Google Search over the course of the past four years are: academia, activism, arab, arabic, body, boy, boyfriend, bush, canada, capitalism, care, catholic, chance, change, christianity, communication, control, courage, cowboy, culture, daughter, death, destiny, dude, enemy, evil, faith, fascism, father, fear, female, femininity, feminism, fool, free speech, friendship, gay, gender, girl, girlfriend, god, goddess, goodness, gospel, government, grace, greed, gun, happiness, hate speech, heterosexuality, homophobia, homosexuality, hope, identity, insanity, instinct, integrity, is, islam, jew, jewish, joy, justice, labour, law, laziness, life, love, luck, lust, male, man, masculinity, mind, money, morality, mother,

muslim, need, obsession, passion, peace, perception, perfection, phd, poverty, power, pride, procrastination, property, prostitution, quebec, race, racism, rage, reality, reason, religion, respect, right, sadness, sanity, satan, sex work, sex, sexiness, sexism, sexuality, shyness, sin, slavery, socialism, son, soul, spirit, terror, terrorism, thought, tom cruise, transgender, trouble, trust, want, war, woman, work, and xy.

The entire archive is available at <http://melhogan.com>.

For the first year, the process included selecting the words. Inspired by my trajectory in cultural studies/media studies, and my growing interests in the link between human emotion and algorithms, these words were the words I chose for this collection. At the time I had a few of these collections going, but this particular thread is the one I kept collecting over the past four years.

ML: Why these words, in particular?

MH: I think the words and the searches they suggest point to things people are searching out in private. Real questions. Real worries. It might show how fucked up we all are. What do you think? Look below at ‘daughter is’ – while the suggestions change a little over time, the sentiment remains the same. I find that it’s the words that denote a relationship – daughter or boyfriend, for example – are the most deranged. People searching out answers about (and maybe on behalf of) others? Can Google suggestions become a way to suss out what others are experiencing? Is it where we go to feel normal, even if that normal is twisted?

ML: Hmm. I don’t know. There’s something about the creepily fast predictive suggestions that kind of freaks me out. But maybe, yes, it could be a way to combine with others, emotionally, about shared topics. To have a conversation without having to engage in actual, live dialogue. I found the lists really compelling. And I found myself comparing the lists from one year to the next, because you gave them to me in a way that was easy to compare.

2010	2011	2012	2013
daughter is: overweight depressed moving away pregnant a bully mean tired all the time calling ringtones losing hair a prostitute	daughter is: mean pregnant always cold constipated a bully a loner cutting herself tired all the time overweight calling ringtone	daughter is: pregnant depressed cutting herself spanish pregnant with dads child constipated mean out of control disrespectful to mother a brat	daughter is: pregnant calling ringtone spanish an atheist sexting getting married depressed a brat taller than me a tomboy

boyfriend is: depressed distant ignoring me selfish insecure a virgin moving away a jerk too big	boyfriend is: distant depressed selfish sick ignoring me cheap too big gay boring mad at me	boyfriend is: distant selfish a virgin boring depressed a jerk sick controlling too clingy insecure	boyfriend is: depressed immature a virgin a douchebag boring ignoring me moving away selfish distant gay
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What's more, when I see each of the columns of phrases typed up formally in a table (rather than just as screen grabs), they seem to gain authority, and I find myself fighting emotionally with the meanings thrown at me by the lists. Does every word cause this to happen?

MH: Not every word produces a result, so in that way this social experiment is biased to words that generate results, popular enough searches. What I've noticed is that these are the kinds of words that tend to provoke and trigger strange – and very sad – results from the pooled mindset that has become Google Search. I think, in part, that's because there are genuine queries mixed in with vile equations that together form a sad but somewhat accurate definition of these words, as conceived of generally. Most of it is disgustingly violent. Some of it is more ambivalent. Some of it is just funny. I guess that's a mirror of us...?

2013			
muslim is: not a race evil gonna get you religion of peace wrong fake cult the new black the right religion not a religion of peace	mother is: the name for god spanish crazy dying an alcoholic narcissistic a freshman a sociopath depressed emotionally abusive	male is: x or y xy spanish pregnant the capital of what country a boy or a girl better than female in which country the capital of my capital city	poverty is: state of mind the worst form of violence the parent of revolu- tion and crime relative a disease a choice real found to be cor- related with worse than crack
quebec is: racist a nation a joke stupid poor a good place to live	racism is: good stupid the pits the wrong way hoodie taught funny over schism on a serious tip prejudice plus power dead	transgender is: wrong bullshit a mental disorder a sin not real stupid sexist a choice real a disorder	sex work is: work part of the com- munity immoral is real work tumblr not sex trafficking

It's true though that if the results didn't show something this sad and vulgar, the project would probably be far less interesting; it wouldn't have drawn me in or consumed all of my time collecting and comparing and deciphering WTF is going on with us all. There are a few other projects that document the sad state of Google Search results, like 'Pure Sadness: The Top 10 Google Searches Of 2012'⁴ and 'Google Proves Humanity Is Sick and Sad, Yet Absolutely Hilarious'.⁵ Sad and hilarious, I think that's mostly where we are at. So, I'm certainly not the only one to collect like this. Many of my projects resemble others', but I think we all come to these urges to collect and document for different reasons. People came to the hilarity (or sadness) of this function and started to document it in different ways. For (a recent) example, I just came across this Twitter hashtag for #sadgooglesearches.⁶

ML: Hilarious. There's so much action on this front that there's a Twitter hashtag about it. When I was looking through the #sadgooglesearches posts, I noticed there were hundreds of them on 14 August 2013. And then I found a commentary on the twitter hashtag stream.⁷ So now there's of-the-moment commentary on the topic, not just annual round-ups at year-end. This is what we have spent years and billions on perfecting, in order to have the speediest #sadgooglesearches? How is this helping humankind? What kind of social values are we involved in generating? Also, on a more mundane level, I'm curious to know – are Sad Google Searches the equivalent of cat videos on YouTube?

MH: I think we're back to 'sad' as the agreed upon state of the search archive...

ML: It feels like a terribly sad loss of potential to me. Is there a way to look at this that could be a little more optimistic? What about the predictive elements of this particular conundrum? Do you see Google as an oracle?⁸

MH: Ha! No. It's the opposite. Actually, I don't know, maybe it is. We're going to look back on all this one day and see how messed up we are, at this particular juncture, where what's possible technologically is far ahead of any culturally agreed upon norms. If we're following technology, and that's what's documented here, then it's an oracle that is reductively predictive and polluted. We may look back on this in a decade or two and be embarrassed by our paltry beginning efforts. But chances are most traces of these searches will be long gone... which is why art projects like this become important, right?

ML: Yes! So if you do enough iterations, the danger might be that the searches only take us down increasingly narrow or reprehensible paths. But the upside (to use a horrible corporate term) is that there will actually be traces of these searches.

MH: I'm not sure how to describe what it produces exactly, but in terms of content

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4. 'Pure Sadness: The Top 10 Google Searches', Geekologie.com, 12 December 2012, <http://geekologie.com/2012/12/pure-sadness-the-top-10-google-searches.php>.
 5. Jesus Diaz, 'Google Proves Humanity Is Sick and Sad Yet Absolutely Hilarious', Gizmodo.com, 2 December 2009, <http://gizmodo.com/5152141/google-proves-humanity-is-sick-and-sad-yet-absolutely-hilarious>.
 6. See, <https://twitter.com/search?q=%23sadgooglesearches&src=tren>.
 7. Alexis Rhiannon, 'Other Sad Google Searches: Twitter Hashtag Trending', Crushable.com, 14 August 2013, <http://www.crushable.com/2013/08/14/other-stuff/sad-google-searches-twitter-hashtag-trending>.
 8. Thanks to Frédéric Belzile of BRUCE (<http://vimeo.com/user5001083>) for this insightful query.

alone, it often points to books, movies, and music, popular lyrics and quotes. For example: love, death, grace, respect, and courage, when looked at more closely:

2013
<p>love is: patient patient love is kind all you need a battlefield blindness a battlefield lyrics war lyrics blindness lyrics my religion verb lyrics</p>

'Love is patient' is a biblical verse.⁹ 'Love is all you need' is a 2012 romantic movie¹⁰ as well as a famous lyric from a Beatles song. 'Love is a battlefield' is a Pat Benatar hit from the 80s.¹¹ 'Love is blindness' is a U2 song,¹² but brought to life again by Jack White in 2013 because of the 2013 *Great Gatsby* film (also a remake) soundtrack.¹³ So all of this is very much a commentary on popular culture.

ML: Popular culture, or the vernacular – this is the very foundation of the nation-state, according to Benedict Anderson.¹⁴ How we construct our social selves and articulate shared values: these are critical markers. We imagine ourselves into existence. Music, poetry, journalism. Metaphor, imagination, love, loss. I don't like to think that Google Search/Suggest might one day lead us to the Republic of Google Nation. But, oh right, it already has. In fact, more than one Google Nation.¹⁵

2013
<p>death is: nothing at all not the end the road to awe certain life is not bad blog but crossing the world not the greatest loss in life not dying just around the corner lyrics a star book</p>

9. Mary Fairchild, "'Love is Patient, Love is Blind" Bible Verse', About.com Christianity, <http://christianity.about.com/od/prayersverses/qt/Love-Is-Patient-Love-Is-Kind.htm>.
10. See, http://www.rottentomatoes.com/m/love_is_all_you_need/.
11. See, <http://www.youtube.com/watch?v=j9J9rTZJBmw>.
12. Copies of the U2 music video are easily found on YouTube by searching 'U2' and the song title. For example, at the time of printing: <http://www.youtube.com/watch?v=FLNFw9EYXOw>.
13. See, for example, the Jack White music video on Vimeo, <http://vimeo.com/69265782>.
14. Benedict Anderson, *Imagined Communities*, London and New York: Verso, 2006 (1983).
15. See an iteration of Google nation here: <http://www.googlenation.net/>.

MH: 'Death is nothing at all' is a poem by Henry Scott Holland: 'Death is nothing at all. I have only slipped away to the next room. I am I and you are you. Whatever we were to each other, That, we still are [...]'¹⁶ 'Death is not the end' is a Bob Dylan tune. 'Death is the road to awe' links to a Soundcloud account,¹⁷ and 'Death is certain life is not' leads to a Yahoo! Forum where the phrase needs to be explained.¹⁸ 'Death is not the greatest loss in life' is a quote attributable to Norman Cousins: 'Death is not the greatest loss in life. The greatest loss is what dies inside us while we live.'¹⁹ It's also a quote by Tupac Shakur: 'Death is not the greatest loss in life. The greatest loss is what dies inside while still alive. Never surrender.'²⁰

ML: Or, as long as we have a place to go to assert that we are alive, we can survive death. As Banana Yoshimoto suggests: 'When I'm dead worn out, in a reverie, I often think that when it comes time to die, I want to breathe my last in a kitchen. Whether it's cold and I'm all alone, or somebody's there and it's warm, I'll stare death fearlessly in the eye.'²¹

2013
<p>grace is: gone lyrics gone gone dave matthews sufficient gone chords gone tab gone movie enough enough chords overrated</p>

MH: 'Grace is gone' is a poorly rated 2007 movie,²² and also a song by the Dave Matthews Band.²³ 'Grace is overrated' is not just a statement about grace but rather a blog about hand-drawn guided journals: <http://www.graceisoverrated.com/>.²⁴

16. 'Death is Nothing at all', Poemhunter.com, 28 November 2004, <http://www.poemhunter.com/poem/death-is-nothing-at-all>.

17. See, <https://soundcloud.com/clint-mansell/death-is-the-road-to-awe>.

18. See, <http://answers.yahoo.com/question/index?qid=20090913085839AAP4KkP>.

19. See, <http://www.goodreads.com/quotes/41499-death-is-not-the-greatest-loss-in-life-the-greatest>.

20. See, <http://www.goodreads.com/quotes/80268-death-is-not-the-greatest-loss-in-life-the-greatest>.

21. Banana Yoshimoto, *Kitchen*, trans. Megan Backus, New York: Washington Square Press/Simon & Schuster Inc., 1993 (1988), p. 4.

22. See, <http://www.imdb.com/title/tt0772168/>.

23. See, http://www.youtube.com/watch?v=ssylkxyqB_w.

24. See, <http://www.graceisoverrated.com/>.

2013

respect is:

earned
 earned not given
 earned not given quote
 earned quotes
 a must tour
 burning
 just the minimum
 love
 not earned
 everything

‘Respect is earned’ is a typical saying. ‘Respect is a must tour’ is a search for a hip hop band tour.²⁵ I started to sing along to Lauryn Hill’s ‘Respect is just the minimum’.²⁶ ‘Respect is burning’ is also a music compilation CD.²⁷ So a lot of it is about music, but arguably a lot of music is about life, so it’s very fitting for the effect produced by this kind of archive.

2013

courage is:

not the absence of fear
 lyrics
 change
 grace under pressure
 not the absence of fear quote
 my strength
 contagious
 not always a roar
 the strange familiar
 absence of fear

‘Courage is not the absence of fear’ and ‘Courage is the absence of fear’ likely points to an Ambrose Redmoon quote: ‘Courage is not the absence of fear, but rather the judgment that something else is more important than fear.’²⁸ ‘Courage is grace under pressure’ is an Ernest Hemingway quote.²⁹ ‘Courage is contagious’ is also a quote³⁰ but reveals many other things too as top hits: WikiLeaks paraphernalia, a TED talk on courage, and a URL for a website documenting ‘the amazing events of 2010, and the unraveling of the worlds governments thanks to the courage of many people and one man in particular’.

25. Jake Paine, ‘Webbie “Savage Life 4Ever” Release Date, Trill Fam “Respect Is A Must Tour” Dates’, Hip Hop DX, 27 June 2013, <http://www.hiphopdx.com/index/news/id.24471/title.webbie-savage-life-4ever-release-date-trill-fam-respect-is-a-must-tour-dates>.

26. See, [http://www.lyrics007.com/Lauryn%20Hill%20Lyrics/Doo%20Wop%20\(That%20Thing\)%20Lyrics.html](http://www.lyrics007.com/Lauryn%20Hill%20Lyrics/Doo%20Wop%20(That%20Thing)%20Lyrics.html).

27. See, <http://www.amazon.com/Respect-Is-Burning-Various-Artists/dp/B00000D9VM>.

28. See, http://thinkexist.com/quotation/courage_is_not_the_absence_of_fear_but_rather_the/220774.html.

29. ‘Ernest Hemingway’, BrainyQuote.com, Xplore Inc, 24 December 2013, <http://www.brainyquote.com/quotes/quotes/e/ernesthemi131094.html>.

30. ‘Billy Graham’, BrainyQuote.com, Xplore Inc, 24 December 2013, <http://www.brainyquote.com/quotes/quotes/b/billygraha113622.html>.

2012	2013
culture is: not your friend not optional your operating system ordinary learned ordinary raymond williams dynamic destiny symbolic	culture is: learned not your friend defined as shared ordinary not optional integrated not supported symbolic like an iceberg

Then there are sequences that are harder to qualify: ‘culture is like an iceberg’, which becomes really interesting when you follow the Google suggestion all the way through to the query... what happened in 2013 to make culture be like an iceberg?

ML: The power of metaphor and simile at our fingertips through Google Search/Suggest. ‘Culture is an iceberg’ is a quote from a 1976 book no longer in print, *Orientations to Intercultural Communication*, by Sharon Ruhly.³¹ It has persisted so strongly that a recent blog post by another intercultural communications scholar, Milton Bennett, goes to great lengths to insist that such communication is a process, not an object understandable through this metaphor.³² Or maybe there is some kind of poetic essence that is shaken into existence by the ritualistic repetition of ‘xxx is ...’. Or even better, through the plaintive addition of ‘why?’, as in ‘Why is the measure of love loss?’³³ So ... why do you collect?

MH: In the case of this Google Suggestion project, collecting screengrabs was the only way to record a search and to document it over time. These queries shift all the time – it’s probably technologically impossible to do the same search twice. I think in this case, collecting is a way to hold onto evidence of a phenomenon and also to share iterations easily online. It’s also fun.

Personally, this process began during the time I was writing my dissertation in 2012, and it became a means by which to procrastinate/meditate, almost at the same time.³⁴ I’ve been collecting stuff online – users’ comments are still my favorite;³⁵ I’ve collected desktop screengrabs.³⁶ This collection of people’s desktop was selected to be in the next exhibition for the Screen Saver Gallery project, a contemporary digital art gallery

31. Sharon Ruhly, *Orientations to Intercultural Communication*, Chicago: Science Research Associates, 1976.

32. Milton Bennett, ‘Culture is Not Like an Iceberg’, IDR Institute blog, 6 May 2013, <http://www.idrinstitute.org/page.asp?menu1=14&post=1&page=1>.

33. Jeannette Winterson, *Written on the Body*, Toronto: Random House of Canada, 1992, p. 9.

34. See, <http://spectrum.library.concordia.ca/973890/>.

35. See, <http://www.youtube.com/watch?v=v6O6UqLnZqI>.

36. I collect, more generally, as people do, to recall and remember things. As a collector-scholar, I also collect (and sometimes it feels like hoarding) digital objects as a means of conducting research. My Desktop Archive (<http://melhogan.com/website/show-me-your-desktop/>) project was about seeing who would and wouldn’t submit to the archive. A desktop can be (too) private to share. But it can also be tidied. Some people liked the project, but felt it exposed too much and so didn’t share it. So what I don’t show of that project are the conversations – usually with warnings – that I get from people who submit to the project. There’s a lot of shame around the dirty desktop!

of screensavers run by Czech artists Barbora Trnková and Tomáš Javůrek.³⁷ And of course, the Google Suggestion searches we're talking about now.³⁸

During grad school, I also took a photo of myself every day, for more than seven years, to see time pass. To see myself fall apart because of stress. So I think this urge to collect is a form of meditative hoarding, which speaks to my academic work on digital archives³⁹ and my production work on collections management as well.⁴⁰ It all really comes together when you account for change – to see yourself as positioned differently in relation to objects in time, and a photo of yourself can be an object.

The week of 9-17 September 2013, I collected tweets from the Boulder Floods (#boulderflood) because, re-assembled, they tell a story.⁴¹ The happy sporty Boulder avatars, the politics of blame, the importance of animal rescue, the comparisons to New Orleans' Katrina – these all become fodder for a more scholarly intervention, but this select archive of tweets also tells a story about the event, and as well, inadvertently, about me and what I value as a collector.

Conceptually, I collect because word objects start to make more sense in relation to one another; they give each other context(s).

ML: Do you mean – dialogic? Conversational? Perhaps this is generated simply through juxtaposition? Or maybe the self-focused (sometimes self-centered, or self-ish) nature of the comments don't allow for dialogue at all. No responsibility to others, just a delight in hearing one's own voice in the ether.

MH: The Comments Collection project I did in 2010 was about collecting comments on YouTube videos, ones about the anticipated 2012 end of the world phenomena.⁴² I like to select and carefully reorganize these bits of texts, usually in PowerPoint, so that it tells its own story, without additional contextual information. As in, you can just read it and get it.

ML: I remember when you did this project. Definitely, I found the level of violence in the commentary disturbing. No real space for compassion. But I also like to think about the *People this 2012 shit is hype* piece in tandem with your 52-pickup project on the end of the world.⁴³ Which I think is brilliant, optimistic, funny, and conversational. I believe that's because you are at the heart of it, prompting discussion and thoughtful (and/or hilarious) responses to the question you posed about the end of the world.⁴⁴

37. See, <http://screensaver.metazoa.org/about/>.

38. See, <http://melhogan.com/website/google-suggestions-archive-of-human-sense>.

39. Mél Hogan, *Crashing the Archive: A Research-Creation Intervention into the SAW Video Mediatheque*, PhD thesis, Concordia University, 2012, <http://spectrum.library.concordia.ca/973890/>.

40. See, <http://archinodes.com/>.

41. See, <http://melhogan.com/website/sept-boulderflood/>.

42. See, <http://www.youtube.com/watch?v=v6O6UqLnZqI>.

43. See 'People this 2012 Hype is Shit!', <http://www.youtube.com/watch?v=v6O6UqLnZqI>.

44. Also see: http://www.salon.com/2013/10/20/new_campaign_uses_real_google_searches_to_expose_how_the_world_talks_about_women/.

MH: With the Comments Collection, assembling the story from other peoples' comments worked really well. I did about 20,⁴⁵ dealing with things from music sampling to WikiLeaks as perceived in different newspapers across the world. I like to collect other people's words because the text itself is all that matters – tone, spelling, word choice. Like many people, I often skip the article and go directly to the comments to get a quicker sense of the important issues within the piece.

With this Google Search project, it was a similar incentive. But I wanted to mark the Search over time – which is always as much a commentary on the mode of documentation (whether the screen grab or PowerPoint, copy and paste) as it is about the contents. For me, the simplicity of the tools for collection and display are really important. I rarely think of what to make of the collection. I just like to collect and make 'lists' and organize the content into a story. Collecting is the best way for me to document web phenomena and simultaneously comment on web cultures. There's something in the gesture of collecting that's in itself a means to expose meaning.

ML: How is collecting different from the massive growth in self-tracking through digital technology (e.g. on Facebook, through fitness apps, etc.)? For example, technology journalist Nora Young explores self-tracking in her new book, *The Virtual Self: How Our Digital Lives Are Altering the World Around Us*,⁴⁶ though she doesn't see it as a narcissistic practice – more as a meditation. The repetitive nature of the collection is what is important, i.e. a kind of processing or transforming ourselves while doing.

MH: I haven't read Young's work but I do believe there's a correlation. I think that the NSA debacles since the summer have more than proven that everything is tracked and stored, even if there's always the problem of information overload, including making sense of huge pools of data. The ways in which it is different from biofeedback apps is that it's much more collective and in some ways, more anonymous on the surface. Fitness apps really focus on your body, improvements, and motivation. Facebook is also profile focused and serves to link data to specific individuals within a network. Google Search and Suggestion mashes us all together!

ML: Web-based practices are often referred to as 'virtual' practices. This term – 'virtual' – is tantalizingly close to the terms 'virtuous' (be-good), and 'virtuosity' (display excellence and expertise). Are your interventions virtuous rummaging into the dominance of Google-as-web? Why are you seeking virtuosity in your practice – if you are? And/or why are you probing to see whether and how Google's Cache and Search functions are performing a kind of virtuosity in predictive 'pol-lutability' themselves?

MH: For my collection, I became interested in the process of documenting searches via screen grabs over a period of a few years. The results will become increasingly telling over time – especially in terms of documenting popular culture in unexpected ways:

45. Examples can be found at <http://melhogan.com/website/comment-collection-what-is-this-pay-word-you-speak-of/> and <http://melhogan.com/website/comment-collection-les-sources-de-quoi-cheri/>.

46. Nora Young, *The Virtual Self: How Our Digital Lives Are Altering the World Around Us*, Toronto: McClelland & Stewart, 2012. Also see <http://norayoung.ca/>.

2013
<p>friendship is: witchcraft magic dragons magic wiki witchcraft the movie magic season 4 witchcraft episode 1 magic part 1 magic episodes witchcraft tvtropes</p>

I am wondering how these searches might change based on the ongoing queries made to Google – 5,134,000,000 searches per day in 2012.⁴⁷

But I think this is what Geert Lovink's quote at the beginning of this conversation gets at: Google is not a public archive. But in a sense, if thought of as an archive – the possibilities for creative intervention are endless.

ML: OK, I'm all for this – generating endless creative possibilities. But let's think it through on a theoretical level as well as through the research-creation you've undertaken. Does the theory match what you are finding in your collections?

MH: Google is now highly synonymous with the web, as the main search tool and for browsing the web (rivaled in its ubiquity only by the likes of social networking tools like Facebook and Twitter, which serve decidedly different primary functions than to provide rapid web-based searches). While highly technical, Google's search function can be analyzed from a user/researcher perspective, contributing to an important dialogue about access, and more specifically about access to the web's 'past'. Google has been making its index available through cached copies – Google Cache – since 1998.

To make its collection accessible, Google uses parallel processing 'on a distributed network of thousands of low-cost computers', which means it can crawl and harvest the web rapidly and in many 'places' simultaneously.⁴⁸ More simply, Google's Googlebot 'crawls' around the web. From these crawls, the indexer sorts every word into a database, against which users' queries are compared and for which search results are generated. Based on Google's own Technological Overview, the vision and mission for the 'perfect search' is something that 'understands exactly what you mean and gives you back exactly what you want', according to Google co-founder Larry Page.⁴⁹

However, this notion of the search is complicated by Siva Vaidhyanathan, who argues in his book, *The Googlization of Everything* that 'search' in Google is as much

47. See Google Annual Search Statistics at <http://www.statisticbrain.com/google-searches/>.

48. See the Google Guide Online, <http://www.googleguide.com/>.

49. See, <http://www.google.com/corporate/tech.html>.

about what is concealed as what is revealed.⁵⁰ Google's process is based on four elements: relevance, comprehensiveness, freshness, and speed. Combined, these are meant to allow searches to be at once comprehensive and subjective. These algorithms are updated weekly or even daily and are increasingly customized for each user, based on search history and location. Because algorithms are constantly changing, a search can hardly reproduce the same results (though this is difficult to verify and track because it rarely gets recorded). This, according to Vaidhyanathan, demonstrates that searches are not mathematical calculations based solely on correlations that objectively benefit users; they are largely the product of careful decisions by programmers working with and within large corporations. Vaidhyanathan also points out that the search privileges the recent over the classic, the local over the global, and the personal over the universal; all criteria that are largely about making consumption (online shopping) more effective, not research that relies on consistency in primary and secondary sources.⁵¹

ML: Aha. So Google searches are simultaneously about: shopping, random but funneled research, seeking specific kinds of solutions, and... something else entirely.

MH: Google aims to index all media and formats, and to do so continually, eventually moving into what they call 'Realtime Search'. While the function itself 'went missing' in July 2011 when Google put forth its Google +1 platform, the concept itself remains intact.⁵² Google's Realtime Search (likely to re-emerge eventually) suggests that there is no difference between information created and information published – much like the Twitter application – where access is also said to be instantaneous.⁵³

Interestingly, speed is the emphasis for – and increasing speed, the priority of – Google, whose query response time is 'roughly one-fourth of a second'.⁵⁴ By relying on Realtime Search, Google's archive shifts into the mode of a live or living archive, where events are not only documented moments after they occur in 'real time', but are also indexed and made available within seconds. The 'distance' between the past and the present is shortened, putting into question the proximity of primary and secondary sources within an online archival strategy. Furthermore, given Google's super servers, a site can often be accessed more rapidly through the cached version than the 'live' page itself – and this is important as it effectively thwarts the notion of an original source and any idea of a singular 'present' moment or site as point of reference. As Google indexes content on the web to provide its search tool, it simultaneously makes copies of every document in the index (the Google index is roughly 100 million gigabytes).⁵⁵

50. Siva Vaidhyanathan, *The Googlization of Everything (And Why We Should Worry)*, Berkley: University of California Press, 2011.

51. Despite this trend, or direction, Vaidhyanathan points out that for the last decade, Google has provided an efficient tool for searches that facilitate access to the web for research – even if it is likely to move in the direction of catering to the user as consumer.

52. Vanessa Fox, 'Google Realtime Search Goes Missing', Search Engine Land, 3 July 2011, <http://searchengineland.com/google-realtime-search-goes-missing-84130>.

53. Danny Sullivan, 'What Is Real Time Search? Definitions & Players', Search Engine Land, 9 July 2009, <http://searchengineland.com/what-is-real-time-search-definitions-players-22172>.

54. See, <http://www.google.com/corporate/tech.html>.

55. See, <http://www.google.de/intl/en/insidesearch/howsearchworks/crawling-indexing.html>.

ML: That is mind-blowing. But, not entirely 'real', right? You talk about the significant role played by caches and caching as a key element of data management.

MH: In their on-site documentation, Google glosses over the fact that their index and archive is limited to files at 101 kilobytes of text; that is, the 'cached version of the page will consist of the first 101 kbytes', 120 kbytes for PDFs.⁵⁶ How and if this replicates the true size and complete document is not factored into the summary, an important lack in the overall framework that constitutes Google Cache's collection of the past.

In Google's cache, a cached copy is a version of a web page as it appeared when it was indexed, which is not necessarily a reflection of the present or most current page. Website owners can opt out of the index, but their site is still likely to be cached despite the 'cache' button and access to the cached version being omitted from the interface (made invisible). As John Battelle dramatizes in *The Search*, Google creates 'a world in which every click can be preserved forever'.⁵⁷ The default of multiplying remains even if the cached version is hidden or made inaccessible to the general public; files exist across servers, continually indexing the web's data. However, since the cache exists as an opt-out process (rather than as an informed opt-in), most users overlook the issue of copies as they pertain to these mass automated indexing projects. Part of what makes Google Cache so valuable is its span, despite being largely understated in its current (re)presentation. Google restricts access to the index, making only the most recent indexed version available. Access is limited to one single revision. Needless to say, Google's collection of the web's past grows continuously, exponentially in size and, in turn, in value. However, because it is a corporation working in a competitive environment, Google's indexing and its reliance on metadata standards are kept as trade secrets, which is a stark contrast to archives and library environments where this information is shared freely – and becomes more valuable for it.⁵⁸ This brings attention to the ways the online realm is not accessible or 'open' simply by virtue of being online.

ML: I think this is an important observation, and brings us back to a consideration of these patterns and limits as invariably sad (but not tragic) and ultimately violent (though sometimes life-affirming) in a disconcertingly Foucauldian way⁵⁹ (the Panopticon? Who's in charge here? Who's surveilling whom?) – but on a societal scale, and not always discouragingly.

MH: Unlike formal archives, Google Cache rejects the notion and impetus for creating a permanent historical record of the web. Instead, when pages disappear, Google claims to delete 'dead' links as quickly as possible.⁶⁰ For now, however, Google Cache remains more theoretical than practical, as, by Google's own admission, there are only

56. Nancy Blachman and Jerry Peek, 'Cached Pages', Google Guide, http://www.googleguide.com/cached_pages.html.

57. John Battelle, *The Search: How Google and Its Rivals Rewrote the Rules of Business and Transformed Our Culture*, London: Nicholas Brealey Publishing 2005.

58. Jeffrey Beall argues this in 'How Google Uses Metadata to Improve Search Results', *The Serials Librarian* 59.1 (2010): 40-53.

59. A similar discussion about Foucault and society is found in Lynne Huffer and Elizabeth Wilson, 'Mad for Foucault: A Conversation', *Theory, Culture & Society* 27 (2010): 324-338.

60. Stefanie Olsen, 'Google Cache Raises Copyright Concerns', CNET News, 9 July 2003, http://news.cnet.com/2100-1038_3-1024234.html.

occasional clicks on the 'cache' button – and this for a search engine that gets in the order of a few billion hits each day.⁶¹

ML: So – we are in the process of exponentially generating and simultaneously eliminating our histories, though the evidence in the archives suggests that we ought to remain hopeful: there are traces after all, and we persist in trying to find and understand them. Right? This could mean that the action of collecting comments and searches – as you and others have done – kicks back against the totalizing or discouraging urge, or trajectory, and opens the door to hilarious, engaged, enjoyable. To say it more plainly, preferably without slipping into the trite, thinking and feeling histories and experiences of love and life – through popular culture, the formation of culture, the sharing of culture – are transformative. Even (perhaps especially) through the widely shared Google Suggest experience. How reaffirming to see so many hundreds of thousands of others who have asked your question before you. And yet, your own questions – and answers/responses – may be entirely different.

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61. Olsen, 'Google Cache Raises Copyright Concerns'.

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