

## The Googlization Question, and the Inculpable Engine

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### *Googlization and the service-for-profile model*

The illustration of Google by Jude Buffum may be read as a short-hand reference for ‘googlization,’ a term introduced in 2003 to describe the growing “creep” of the media company’s search technologies and aesthetics into more and more Web applications and contexts, not to mention tradition-rich institutions such as the library (Salkever, 2003; Battelle, 2003). (See Figure One.) In a post on his book-in-progress blog, the Googlization of Everything, the media scholar, Siva Vaidhyanathan, writes that Google has “altered the rules of the game for at least six major industries: Advertising, software applications, geographic services, e-mail, publishing, and Web commerce itself” (Vaidhyanathan, 2007).

Googlization connotes media concentration – an important political economy style critique of Google’s taking over of one service after another online. Within the study of media, more specifically, googlization also could be interpreted as an analysis of Google as mass media, inviting thought about how broadcast media of old are classically critiqued. For example, is there a strict separation between the producer/distributor and the consumer of the media? Engine users generally do not provide feedback about the query returns. Are the financial and technical barriers of entry into the area so high as to forestall newcomers from entrance? New search engines emerge, but the industry has matured. And every major engine employs an algorithm that seeks to emulate Google’s PageRank. There is what could be termed algorithmic concentration. Is the programming, or content delivered, seeking to appeal to the largest possible audience? Search engine returns, as is argued below, do not necessarily put on display a plurality of viewpoints from a diversity of voices. Rather, the sources often appear quite familiar and established. From those characteristics and others, one could begin to consider the value of a mass media critique applied to Google (van der Vlies, 2008).

What else is googlization? Vaidhyanathan points out that the services appear to be gratis. Yet, when we use “Web search, email, Blogger platforms, and YouTube videos, Google gets our habits and predilections so it can more efficiently target advertisements to us” (Vaidhyanathan, 2007). To googlization scholars and others studying Google, especially

in surveillance studies, the search engine company's is a personal information economy business, where the standard exchange is service for profile (Elmer, 2004; Lyon, 2007). Thus googlization, as a process, implies the fanning out of the service-for-profile model both by Google, into its other, non-search areas, as well as by its followers and emulators. The question for googlization scholars is both the extent of such a 'creep' as well as its consequences.

That is, to study googlization, and its further spread, one would enquire into whether the service-for-profile model is transforming other media, including the 'older' media and perhaps off-line trades. Building on the work of the communications scholar, Joseph Turow as well as the surveillance studies scholar, David Lyon, I described one consequence of the phenomenon of the personal information economy as having to know you, in order to sell to you, in the retail industry (Rogers, 2008). The questions surrounding the increasing mediatization of retail, including customer relationship management and especially loyalty cards, relate to giving discounts only in exchange for profitable information. Coupons yield to cards swiped. In department stores, geo-identifiers (e.g., zip code) are keyed in prior to check out.

In his study of niche economies, Turow argues that advertising, with the Internet, is gradually turning away from mass broadcast of the television age to 'direct,' a form of salesmanship that historically has relied on the personal attention of the door-to-door seller, or the visiting market representative (Turow, 2006). Without the human contact, now, building a relationship lies in the form of technology chosen to collect user data, and subsequently to personalize salutations, alerts, adverts as well as recommendations. The customization code referred to here is distinct from more mundane means of making the desktop, avatars and mobile communications environments one's own through modification, where the user places her own skins and templates on a page, or associates a ringtone with a particular individual. Google's 'direct' is an algorithmic, relational design approach that places relevant information in precious spaces. In a sense, the software also enters the user into personal communication with the database. Here 'the personal' should not be understood in the customary, official sense, such as one having to enter date and place of birth, gender, etc. into form fields. Rather, the database contains one's "flecks," content about interests and habits (e.g., from search queries) that are employed to glean a profile on the basis of a small collection of information pieces

(Weinberger, 2002; Fuller, 2005). Crucially, piecing it together only partially de-anonymizes the user. That is, there is no army of salesmen, becoming acquainted with the customers, as deployed by modern ‘direct’ companies such as Amway selling Nutrilite. Rather, the profiling of tastes follows from one’s key words (from search history) and geography (from the IP address). The question for googlization scholars thus concerns the uptake of such identifiers into more and more services.

How may one further inquire into what happens when an industry has been ‘googlized’? More conceptually, there occurs what may be described as a mode switch from consultational to registrational interactivity (Jensen, 1999). In consultational interactivity, the user queries and chooses from pre-loaded information, as in a library catalogue. One consults what is already there, and user anonymity does not come into play (unless books are borrowed, and anonymity is dealt with through data retention laws). There are no dynamic recommendations. With registrational interactivity, the information delivered is dependent on one’s personal settings, be they preferences such as language, safe search and the quantity of results (in a lighter version), or on one’s histories of sessions, searches, purchases, etc., in a deeper variation. As personal settings and personal histories fuse, the search engine’s acquaintance with the user would ultimately provide the uncanny, as if it knew what you were looking for and desiring all along. The effects, and affect, of personalization on search may be studied by striving to train a logged-in Google account to return only sources that are desired, such as only anti-fur groups for a fur query, instead of purveyors of the pelts and hides.

#### *Back-end googlization*

Research into what may be termed the uncanniness of search engine returns suited to one’s predilections and desires has found forms of the familiar, albeit somewhat different from the expected. In early research, which has been followed up by the search engine critical design group, MetaHaven, engine results are scrutinized not only for what they include and exclude, which is the classic, info-political critique (Introna & Nissenbaum, 2001; van Couvering, 2004; MetaHaven, 2008). Beyond looking into levels of source plurality and diversity in the medium once celebrated for its egalitarian spirit, the info-political work also scrutinizes the kinds of stories search engine results tell. The idea of fashioning a story from search engine returns harkens to the writings of literary hypertext theorists, following Jorge Luis Borges’s short story written in 1941, where the path the

surfer takes is considered a means of authorship (Borges, 1993). Here, however, the search engine is the authoring device, as it provides the current sources considered relevant and timely. The usage of the term, timeliness, is different from the journalistic sense, where news should be on top of events. Similarly, but in a Web-specific sense, timeliness refers to an acceptable refresh or posting frequency. What do all these timely sites with high inlink counts add up to? Examining the specific set of sources delivered in the returns, what stories do they tell?

I critiqued Google by comparing the results of a query for terrorism to the source set one is accustomed to hearing on the evening news (Rogers, 2004). Instead of providing a collision space for alternative accounts of reality, Google furnished the familiar, in that the storyline about the war on terrorism has been repeated frequently on television by showing clips from the U.S. White House. Whitehouse.gov was among the top results for the query, terrorism, in 2003, together with cia.gov, fbi.gov and other establishment sources, including CNN and Al Jazeera. The familiarity of results put paid to the notion of a reputational free-for-all on the Web. Google had become journalistic, sourcing like elite media and well-resourced agenda-setters. The findings became starker in MetaHaven's experiment. In July 2008 a Google.com query for **Karadžić** furnished, in the following order, "Wikipedia, BBC News, Google News, Yahoo News, *The Guardian*, Reuters, MSNBC, Interpol, YouTube and Google Blog Search" (MetaHaven, 2008). With the exception of Interpol, the entire source set is media, and leaning towards the self-referential.

Thus the crucial question is, which kinds of sources are being recommended for a particular query? Put differently, how may one think through the kind of recommendation engine Google is? One may argue that Google, for its majority of user types (searchers and Webmasters) as opposed to its advertisers, always has provided an indication of the state of source dominance per area of inquiry. Google is a status-authoring device. Given all the pages that do reference a key word, the search engine delivers those 'deserving' to be listed as the top sources. Thus, apart from seeing the source set as the story, one also may view the engine results as telling a second kind of story -- the current status of the topic or issue in question through the organizations currently representing it, on the record, in the engine returns. Compare queries made in Google in 2004 for "climate change" and for RFID, in terms of the types of actors

present in the top returns (see Figure Two). For “climate change,” there are U.N. scientists, governmental agencies, and other establishment actors. For the RFID (radio frequency identification) query, the actor types are the trade press, corporations, lone activists and electronics tinkerers. A comparison of the actor composition provides an indication of the maturity of the issue, with RFID in an emerging, more polarized discursive space (hopes and fears), and climate change more settled (policy processes). By 2008 the RFID engine return space contains a somewhat different population of actors, with non-governmental organizations (epic.org and eff.org), mainstream media as well as a governmental agency making an appearance. Comparing the actor composition in engine returns for the same query over time shows changing states of play for an issue, according to the sources at the top of the returns.

Generally speaking, the lesson for googlization scholars is the resonance of such novel status-making across other platforms. Has the back-end algorithm taken over from the traditional status-makers, the publishers, editors and other classic adjudicators? One case study to build upon concerns the Web directory, the human-edited projects, including Yahoo’s and the Open Directory Project’s, which have sought to organize the Web by topic. Yahoo’s Web directory is the prototypical example, once compared to Shiyali Ramamrita Ranganathan’s 1933 Colon Classification system (Glassel, 1998). In the well-cited piece published in 1998, the “Internet cataloguer,” Aimee Glassel, argues that Yahoo is Ranganathanian, in the sense that it does not endlessly create new, unique topic areas – building out that flat ontological list -- as in the Dewey Decimal System (or encyclopedias more generally), but rather has broad top-level categories and facets that constitute them. From the mid-nineties to the end of the twentieth century, prior to Wikipedia’s entry onto the Web in 2001, it was a model to emulate, not only for the entire Web, but also nationally, with such efforts as Startpagina in the Netherlands.

For all the innovation and imitation that it spawned, the Yahoo directory met its fate in October 2002, when it was replaced as Yahoo’s default engine – by Google returns. Subsequently, in February 2004, Yahoo cut the ribbon on its very own algorithmic machine, designed by in-house engineers, to yield results not so unlike Google’s. Giving way to the familiar ‘organic’ results of the dominant engine, it put its hand-made directory aside. Was Yahoo, in a sense, googlized?

### *Front-end googlization*

On the front-end, Yahoo's portal approach remained, with its bountiful services, text and images, or clutter, if one's sensibilities are trained by Google's aesthetics. What had changed at Yahoo? Casting an eye not on the front-page, but on Yahoo's engine results page, Search Engine Watch writes:

How does the new Yahoo search engine differ from Google? The presentation of the results is very similar. Yahoo has wisely opted to keep things looking mostly the same, with a few exceptions. There's a link to the cached copy of each indexed page -- now being served from Yahoo, not Google. Just about everything else on search result pages looks the same (Sherman, 2004).

Having the same look as Google was thought desirable, certainly in terms of the single search box, front and center. In his lament about the loss of the butler at Ask Jeeves as well as the longer march of engines joining the "logo, form, button" aesthetic, Derek Powezek, a designer of Technorati's interfaces, argues that too many engines have asked the question, "What would Google do" (Powezek, 2006)? His argument could be interpreted as a concern for interface googlization. Indeed, in describing the "googlization meme," John Battelle, author of a well-known book on Google, argues that attention should be paid to the increasing homogeneity on the homepage. Reducing it to a single search box could be construed as the pinnacle of the merging of usability and functionality.

Everybody loves using Google. Therefore, doesn't everybody want the same simple design on every site they visit? (...) People are calling this approach Home Page Googlization (Spool, 2006).

The fascination is with Google's simple search box, including its two main buttons, Web search and its homage to hyperspace, I'm feeling lucky. That second button is an anomaly for the googlization critique, in the sense that neither has it spread across engines, nor is it linked up with the source of revenue, advertising. I'm feeling lucky skips the results page.

Where the second interface, the results page, is concerned, a critical study should include what could be dubbed Results Page googlization. Despite the arrival of Kartoo in 2002

and other engines ‘visualizing’ returns, listed results dominate, with a default of ten per page, and each entry comprising title, description or teaser text, and hyperlink per entry.

Studying the input field (search box) and the output (the list) has detracted attention from the tabs, however. In its first ten years, recently celebrated, Google has made subtle changes to its front-page real estate. There have been upgrades and downgrades of such services as Froogle and Groups, as Google Labs and other acquired projects see the light of day, only to be de-emphasized later. Paying attention to the tabs, in a longitudinal study, is one way to step back-stage, and come to grips with Donald Norman’s classic Google critique: “Is Google simple? No. Google is deceptive. It hides all the complexity by simply showing one search box on the main page” (Norman, 2004). Norman, the design and usability scholar, is referring to the absence of transparency in two respects – the interface lacks an overview of the services on offer, and also, perhaps more to the point, masks the organizational structure. Google thus becomes a new case of a “social hieroglyphic” (Berger, 1999). In a variation on the Marxist language, one could argue that it makes invisible the social relations behind its commodity, and at the same time naturalizes it, making it seem like second nature (Galloway, 2004). Search engine returns, at least those that are not sponsored, are ‘organic.’ It is here that the contribution of Henk van Ess, the investigative journalist and search engine observer, is of special interest. The URL discovered in 2005, <http://eval.google.com>, prompted a cause célèbre and exchanges with company representatives, posted online, for van Ess found that Google hires humans (students) to check the search engine results for reliability (van Ess, 2005). Finding that the results are manufactured arouses excitement, not only because of its association with the Mechanical Turk, or the climax of *The Wizard of Oz*, when the curtain is drawn back to reveal a human. But it also complexifies the simple search box, removing its reductionism. As pure algorithmic logic recedes, Google’s back-end becomes messier.

Where another of its significant relationships with humans is concerned, Google more generally has been in sync with Yahoo on one project, of crucial importance to librarians and editors. Google followed Yahoo by downgrading its directory. In March 2004, Google moved its directory (the engine built on top of the Open Directory Project, [dmoz.org](http://dmoz.org)) off of its front-page, demoting the directory tab to the ‘more’ button. In 2006, Google’s directory was placed under ‘even more’. By late 2007, when [Google.com](http://Google.com)’s

menu moved upper left, the 'even more' menu item was gone, though it did return (again without the directory) in 2008 (see Figure Three).

Googlization studies are thus inquiries into how subtle interface changes imply a politics of knowledge, in particular the de-privileging mechanisms through the relegation of editorial services to further depths of a Website. The burying of the directory in both Yahoo and Google signals a much larger transformation -- the demise of the expert human editors of the Web. (Paid 'Internet cataloging' positions also disappear.) Just as poignantly, for library scientists, is another consequence of the rise of the back-end algorithm for directory innovation, very much unlike in the alphabetical, egalitarian spirit and also unlike Ranganathanian's top-level categories with constitutive elements forming a whole. By 2007 Yahoo had changed the default output of its directory. The alphabetical listing was replaced by a ranking of sources based on 'popularity.'

By default, Directory site listings are presented sorted by popularity and relevance. Sites that are most popular with users or the most relevant to the category appear at the top of the site listings. The order of websites or web documents is based upon Yahoo! Search Technology (Yahoo, 2008).

That search has supplanted browsing (and surfing) is a larger Web phenomenon, often attributed to usefulness rather than to googlization. The bottom-up user has needs over those of the top-down cataloguers (Shirky, 2005). In another of the many inversions brought about by new media, the audience has taken over from the tour guide. Everybody holds the red umbrella. But for the googlization project the further question has to do with the impact of user empowerment over that of editorial expertise or algorithmic purity (Keen, 2007). Search is becoming personalized, whereby results are tailored to one's tastes, based on search history and the results clicked. To achieve it, the search engine user is being 'recorded,' also in the sense of the words Google has chosen for the settings. One pauses search history, and resumes it. Playing back one's history is encapsulated in the feed option. As the veteran search engine observer, Danny Sullivan, writes, one of the greater significances of personalized search is that "the days of everyone seeing the same results for any particular query are growing more numbered" (Sullivan, 2007). The story authored by the search engine results is now partly of one's own writing, as certain sites that one visits frequently are boosted a few places upwards.



Sullivan tells of his gratification in seeing his own articles rather high in the rankings for certain favorite queries, and wondering if his work is as highly ranked for other users.

### *The Inculpable Engine*

For media scholars one of the questions has been how to reinterpret the idea of the gatekeeper, the powerful editor controlling the stories that are fit to print, in light of the link networks determining rankings, and search histories boosting favorite sources in personalized search. Without taking algorithmic tweaks and major overhauls into account, a straightforward discussion of new forms of gatekeeping would follow from cases of sites being de-indexed. The ‘Google Guy,’ Matt Cutts, blogs about them, telling readers about ‘webmaster best practices,’ Google guidelines with admonitions about baiting crawlers with ‘engine spam,’ such as back-door pages. Perhaps of greater import are particular glimpses into the workings of the Google bots provided by Cutts. Writing about a mother crawl in 2006, called bigdaddy, he relates that there are “sites where our algorithms had very low trust in the inlinks or the outlinks of that site. Examples that might cause that include excessive reciprocal links, linking to spammy neighborhoods on the web (...)” (Cutts, 2006). The valuation of one hyperlink as one vote no longer applies; not all links are of equal value. It is a useful corrective.

The excessive reciprocal interlinking explanation may help with the following. As a case in point about the varying values of links, in 2007 researchers and I began logging Google results for the query, 9/11, with a focus on 911truth.org, a source that is referred to as a conspiracy site in various contexts, including through the tags the site has been given by Del.icio.us users (see Figure Four). Beyond 911truth.org, two other sites’ rankings are highlighted, *The New York Times* (nytimes.com), and the New York City government (nyc.gov). In 2007, from March through the anniversary of 9/11, 911truth.org routinely makes the top ten in the results for the query. *The New York Times* and the New York City government are well below the fold, coming in under result rank 50, and 100, respectively. One of the purposes of the work is to put on display particular organizations’ rankings for a query, in an effort to switch the view of Google results, and think through the cognitive changes that Google has brought about. (Thus googlization studies also become interested in the evolution of one’s ideas about relevant sources.) Normally, the top ten results (or the top 20, 30, 50, 100, depending on one’s preferences) constitute the population of sources one would consult. One does not normally think to

oneself, why is *The New York Times* not present on my results page? Where is the New York City government in the results for my 9/11 query? Having figured so significantly in the event itself, shouldn't the New York City Fire Department be there? Such questions are precluded, for instead the Google results make up the world of relevance.

Of greater importance, the research project documented the sudden disappearance of 911truth.org from the results (see Figure Five). Some ten days after 11 September 2007, 911truth.org dropped precipitously from a top 5 source, to 200, and then off the chart, returning some two weeks later to its usual top placement.

One possible explanation is that 911truth.org, as a franchise site, with chapter affiliates such as ny911truth.org, sf911truth.org and vancouver911truth.org, routinely link to the parent site, and did so with a flourish around the 9/11 memorial day, signaling what Matt Cutts called excessive reciprocal linking. For researchers and me charting the sudden drop in ranking, the question arises as to the stability of the source set in search engine returns. Is there volatility in the returns in the sense that what one receives today may be rather different from the next? (That results change over time is of interest to those researching the current status of the subject matter, according to the source set or actor composition returned, as argued above.)

I would like to conclude with a major implication of personalization. To Danny Sullivan's point that customized search removes returns common to all searchers for the same query, I would like to add that personalization takes the search engine off the hook, because the 'blame' or responsibility for the results is partly one's own. Critical examinations of search results for their politics of information provision turn inward. For those viewing Google as mass media, the previous lack of user feedback has been built in.

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#### Acknowledgments

The author would like to thank the members of the Digital Methods Initiative, Amsterdam, <http://www.digitalmethods.net/>, as well as the organizers of the Deep Search conference, Vienna, November, 2008.

Figure One: Responses to Googlization. Illustration by Jude Buffum, 2008.

{[http://www.boston.com/bostonglobe/ideas/articles/2008/06/22/stopping\\_google/](http://www.boston.com/bostonglobe/ideas/articles/2008/06/22/stopping_google/)}

Figure Two: Issue Maturity Indication by Actor Composition Returned by Search Engine. Google Query Results for Climate Change and RFID, 24 and 23 August 2004, respectively. Source: Google.com.

{[http://www.govcom.org/publications/full\\_list/Deep\\_Search\\_Images/climate\\_change\\_googlequery\\_aug2004.png](http://www.govcom.org/publications/full_list/Deep_Search_Images/climate_change_googlequery_aug2004.png)}

{[http://www.govcom.org/publications/full\\_list/Deep\\_Search\\_Images/rfid\\_googlequery\\_aug2004.png](http://www.govcom.org/publications/full_list/Deep_Search_Images/rfid_googlequery_aug2004.png)}

Figure Three: The Demise of the Directory. Web Librarian Work Removed in Google. Analysis by Richard Rogers and Laura van der Vlies. Graphic by Kim de Groot, the Digital Methods Initiative, Amsterdam, 2008.

{[http://www.govcom.org/publications/drafts/GCO\\_directoryfall.pdf](http://www.govcom.org/publications/drafts/GCO_directoryfall.pdf)}

Figure Four: Delicious Tags for 911truth.org. Analysis by Michael Stevenson. Graphic by the Digital Methods Initiative, Amsterdam, 2008.

{[http://wiki.digitalmethods.net/pub/Dmi/ToolDeliciousTagsPerUrl/Delicious\\_Tags\\_for\\_911truth.org.pdf](http://wiki.digitalmethods.net/pub/Dmi/ToolDeliciousTagsPerUrl/Delicious_Tags_for_911truth.org.pdf)}

Figure Five: A Website is Gone. A Website Returns. The Drama of 911truth.org in Search Engine Space. Graphic by the Issue Dramaturg, Govcom.org Foundation,

Amsterdam, 2007.

{[http://issuedramaturg.issuecrawler.net/issuedramaturg\\_story/911truth.org.html](http://issuedramaturg.issuecrawler.net/issuedramaturg_story/911truth.org.html)}

To appear as:

R. Rogers (2009), "The Googlization Question, and the Inculpable Engine." In: F. Stalder and K. Becker (eds). *Deep Search: The Politics of Search Engines*. Edison, NJ: Transaction Publishers.

Also to be published in German translation by Studienverlag.