'I Am not a Web Search Result! I Am a Free Word': The Categorization and Commodification of 'Switzerland' by Google

Anna Jobin and Olivier Glassey

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Imagine a world in which all your questions meet calculated answers defined and achieved by an opaque process. A place where your various interrogations are tracked and stored so that the knowledge the system possesses about you is continuously refined. Your behavior, centers of interest, habits, and languages are endlessly monitored, collected, and transmitted to a secret, remote command center.

That command center, which provides a massive map of the known world, gathers information about all the inhabitants of this place. The scope and the ramifications of the actual use of that massive intelligence remain unknown to you, but you are told that everything is geared towards collective benefits. Indeed, the system supports its users and spares no effort to organize and offer seamless access to varied information about any topic you seek to explore. Moreover, it has been designed in a way which helps you to stay focused by filtering out pieces of information that it has decided are of limited use for your future projects. The system 'cares' so much about your precise understanding of the world that it will even try to anticipate your questions. In order to smother unfiltered social interactions and increase its own efficiency, the system will also strongly suggest a transparent digital classification of individual identities.

While most people thrive within the system, a few lonely inhabitants are resisting. Nostalgic for their former world, these individuals try not to share their personal information, although the system episodically tries to trick them into doing so. A typical hardcore resister keeps raising critical questions about the opaque management of the command center and is tirelessly trying to find out which intelligence agencies might actually benefit from the collected data. He takes a symbolic stance and refuses the digital identity that he has been assigned.

Overall, the reach of the system seems all-encompassing, except for those who are limited by it and are subtly, and sometimes forcefully, brought back within its realms, as it is in the system's interest to keep people within boundaries.

No, this is not necessarily the description of the 'Googlization of everything',[1] despite its resemblance, but a condensed summary of the universe of the late sixties cult TV series *The Prisoner*. The hero of the show, a former spy, tries to make sense of a new world where he has been abducted, a tidy seaside holiday village apparently controlled by a secret organization, the goal of which is to extract the information of intelligence agents.
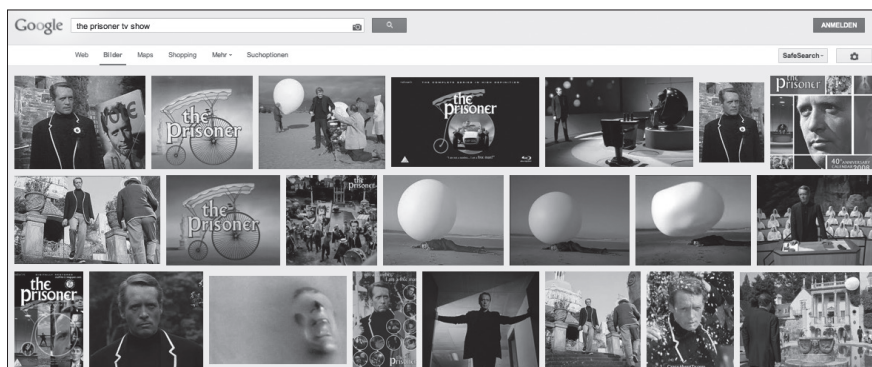

Fig. 1. Googling *The Prisoner*.

Like many successful science fiction stories, this work has become, over time, a generic metaphor used to deconstruct different forms of confinement.[2] While the universe of the TV series is quite remote from any actual stakes raised by information technologies, we nevertheless consider the depicted organization of the village (the 'system') a stimulating entry point to a critical discussion about our current relationship with search engines.

We will therefore examine in more detail the forms of confinement enabled by Google, their organization, and their performativity with regard to accessing content through this service. We begin not from a small village but from a word, in order to understand how it is processed by passing through the 'mills' of Google.

Why Words Matter for Google
Google's search algorithms determine the relevance of websites for particular search terms. More specifically, they determine which search results (links, pictures, videos, etc.) seem to be most relevant for particular search terms for a particular user.[3] And while other attributes such as technical specificities of a website or geographical location are taken into account, Google depends heavily on words because they are the

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1. Siva Vaidhyanathan, *The Googlization of Everything (And Why We Should Worry),* Berkeley: University of California Press, 2011.
2. Pierre Sérisier, *Le prisonnier: sommes-nous tous des numéros?* Paris: PUF, 2013.
3. Cf. e.g. James Grimmelmann, 'The Google Dilemma', *New York Law School Law Review* 53.939 (2009), http://works.bepress.com/james_grimmelmann/19. Or Martin Feuz, Matthew Fuller, and Felix Stalder, 'Personal Web Searching in the Age of Semantic Capitalism: Diagnosing the Mechanisms of Personalisation', *First Monday* 16.2 (July, 2011), http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/3344/2766.

base of any query.[4] The query terms trigger search results, which are links to web-pages that have been evaluated according to keywords as well as to the words in the anchor text of the pages pointing at them. In order to display the most relevant search results for a user, Google evaluates the relevancy of potential search results for this user's initial query terms. Since most query terms consist of only two to three words,[5] Google depends on understanding the meaning of these words as accurately as possible; its algorithms are iterative and 'learn' whether or not the association between a certain query term and search results is adequate.

The importance of written language to the way Google works cannot be understated. Even content which is *a priori* not text – e.g. images and videos – will be indexed, ranked, and searched for in terms of the words that are associated with it: title, file name, description, tags, meta-text, etc. Nothing in this world, supposedly, escapes the possibility of being represented with words. The underlying paradigm of the way Google works is a 'semantic determinism': the vision of a world where everything that exists can and will be expressed through the symbolic form of words… and then be indexed by Google.

But Google does not only depend on words for the constitution of its index. Words are also a *commodity* the company earns money with, because Google has com-modified words by offering advertisers the opportunity to bid on certain search terms with which they want their ads associated.[6] Indeed, the entire company, Google Inc., owes almost its entire revenue – tens of billions of dollars each year – to advertising.[7] It is on Google's platform AdWords that advertisers are presented with a price-list for search terms they could potentially associate their ad with.

The very same search terms that trigger previously indexed web search results (web-sites, links, pictures, videos, etc.) *also* trigger ads that are displayed at the same time. These ads have been esteemed 'relevant' with regard to the search terms by advertisers who have bid on these words, as well as by Google, which evaluates rel-evance within the *Quality Score* attributed algorithmically to each ad.[8] The process of commodification of words is thus not only the transformation of words into monetary value; it is also the (re-)production of representations by linking words and meaning. And, words have the highest value for Google when their meaning can unambigu-ously be determined and commodified.

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4.   Admittedly with the exception of image search based on an existing image, a lesser known and comparatively little used feature.
5.   Dirk Lewandowski, 'New Perspectives on Web Search Engine Research', in Dirk Lewandowski (ed.) *Web Search Engine Research*, Bingley: Emerald Group Publishing, 2012, p. 4.
6.   Cf. Micky Lee, *Free Information? The Case Against Google*, Champaign: Common Ground Publishing, 2010. And Theo Röhle. *Der Google-Komplex: Über Macht Im Zeitalter Des Internets*, Bielefeld: Transcript, 2010.
7.   Christian Fuchs, 'A Contribution to the Critique of the Political Economy of Google', *Fast Capitalism* 8.1 (October, 2011), http://www.uta.edu/huma/agger/fastcapitalism/8_1/fuchs8_1.html.
8.   Check and Understand Quality Score – AdWords Help, Google, https://support.google.com/adwords/answer/2454010?hl=en.

What is 'Switzerland'?

We have decided to explore how 'meaning' is attributed to a word by undertaking a case study of the (in-)visibility of the categorization of one particular word by Google. As will become obvious below, the linguistic particularities of Switzerland provide an ideal context for our exploration.

Our case study starts with the following question: What is *Switzerland*? Isolated, the word Switzerland is free from meaning, because it is only the usage, contexts, and intentions that will assign meaning to the word.[9] For Switzerland, Wikipedia's disambiguation page already lists about a dozen possibilities to begin with. Then, consider how a particular meaning of Switzerland may or may not be equivalently expressed by e.g. *Schweiz* (in German) or *Suisse* (in French). Finally, think of all the different meanings Switzerland can have for individual people.

If one types 'Switzerland' into Google's search query field, there is no disambiguation – only web search results and ads. (Plus search options, which actually add to the lack of transparency rather than act as a remedy for it, as we will see later.) Of course, results will be shaped according to profiling, (personalization, localization, language settings, etc.), and in 2011, Eli Pariser has brought mainstream attention to what he named the filter bubble: the focus on *the Google search results we are not getting* due to personalized filtering.[10] Our case study, however, shows that the phenomenon goes beyond a personal filter bubble impacting individuals. The Google search results we are *not* getting are a symptom of a complex dispositive based on linking words and their meaning: a symptom of a semantically determined lifeworld imposed on us, without transparency, on various levels.

'Switzerland' in Switzerland

What happens if you search for the word 'Switzerland' in Switzerland? Well, it depends. Switzerland is a polyglot country. There are four official languages (German, French, Italian, and Romansh) and English is widely used as well.

The default language option for Google's Swiss search portal, google.ch, is set to German. But if your browser settings allow cookies,[11] google.ch can – and according to your general settings will – be used in any other of those five languages. It goes without saying that our case study is based on the most general options, allowing for as little personalization as possible with available settings (e.g. no browser or search history), which does not exclude the possibility that people use platforms in a specified language. Let's first search for 'Switzerland' on Google Switzerland, the English version of google.ch, because there are many plausible scenarios where someone's language settings are set to English.

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9.   Lev S. Vygotskij, *Denken und Sprechen: psychologische Untersuchungen*, trans. Joachim Lompscher and Georg Rückriem, Weinheim; Basel: Beltz, 2002.

10. Eli Pariser, *The Filter Bubble: What the Internet Is Hiding from You,* London: Penguin Books Ltd., 2011.

11. In September 2013, Google announced that the company intends not to rely on cookies anymore in the near future (cf. Claire Cain Miller. 'Google Is Exploring an Alternative to Cookies for Ad Tracking', The New York Times Bits blog, 19 September 2013, http://bits.blogs.nytimes.com/2013/09/19/google-is-exploring-an-alternative-to-cookies-for-ad-tracking/).

Fig. 2. Search results for 'Switzerland' on Google Switzerland (i.e. google.ch in English).

Further, let's see what happens when the language settings were set to German, French, Italian, or Romansh, and search again for 'Switzerland' on google.ch. The results on the search engine results page (SERP) are not identical, although Wikipedia, tourism promotion portal MySwitzerland.ch, and about.ch turn up on each SERP, albeit in slightly different ways.[12]

According to Google's web search results, the word Switzerland is most closely related to tourism (MySwitzerland, Lonely Planet), a geographical entity (map), and a

12. Pictures are available in an online appendix, see networkcultures.org/publications.

Wikipedia entry. The google.ch in French and German puts links to MySwitzerland on top, whereas in other languages Wikipedia is first. The SERP of Google Switzerland features 'News for Switzerland', a different set of results than the general 'web results' (including all results from any country, any time, as the settings to the left indicate). 'News for Switzerland' shows up solely on Google Switzerland. This is already a first indicator that the word 'Switzerland' is interpreted in a different manner by Google according to the language of the interface.

The particular result of 'News' brings us to the next question: what if, in fact, we are searching for specific kinds of results? I might actually be looking only for news, images, or videos. Suddenly, the very same word triggers very different results, depending on the language settings for google.ch.

Video search results on Google Switzerland consist mainly of travel and tourism videos (dating from 2008-2013), plus three videos about recent events (Oprah's visit in Zurich and a football match). The search for the very same word on Google Schweiz shows striking differences: the results consist mainly of videos in German about a Swiss TV singing show, plus one about a sports event and travel information.

You might say that different language settings lead to different search results because the search results are based on the language settings. Indeed, this is how Google works; it assumes that our language settings are a manifestation of the search results we seek. Why would anyone use Google Schweiz if they did not privilege German language results?

There are at least two problems with this reasoning:

1. It is not true!
The assumption that language settings always state individual language preference is simply wrong. In Switzerland, a small polyglot country with four co-existing official languages, plus English being the lingua franca on the internet, there are many reasons why someone might be using Google in a certain language without wanting results to be filtered according to this specific language setting. An important illustration of this wrongful assumption is Google's default of German for most Swiss IP addresses.[13] As a result, people from the French or Italian speaking part of Switzerland have to use Google Schweiz (in German) if they are browsing as privately as possible and not allowing cookies. Or someone may, for example, own a personal computer with English language settings, yet their workplace computer is set to German. Why would this person be looking for inherently different information when googling Switzerland depending on which computer she is using? Neither geographical location nor language settings can unambiguously predict a user's actual language preference.

2. It is patronizing and misleading!
Have you noticed the settings to the left of the SERPs? Whatever language setting is enabled, the search settings state that the results come from the 'web', without limi-

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13. Even distinct regional defaults would provide no solution because many Swiss IP addresses are generated dynamically and thus indicate the internet provider's, not the location of a user.

tation. Furthermore, it is mentioned that it is possible on Google Schweiz to limit the results from German websites – nowhere does it say that the results have already been filtered based on language. Users are made to believe that the language setting applies only to the interface, not the results.

But does this really matter? Someone who wants to find videos related to Switzerland other than the TV show 'Voice of Switzerland' will keep looking, won't they? This presupposes that people already know what search results they want, which is far from being the default case and is especially not true when we search for news – by definition recent items of information we might not yet know. Checking out Google search results for news, the difference between the English google.ch and the German google.ch is striking. Again, to the left of the results Google suggests that these results have not yet been filtered based on language nor on country of origin.[14]

'Switzerland' in Switzerland in Swiss Languages
Up to this point, we have been searching for a single word: 'Switzerland'. Already, search results for the word's English expression have been seen to depend on the platform (or language setting) on which the term is entered, despite all of them coming under the umbrella of the local Google portal, google.ch. In what way do things change if we search on each platform in the respective language?

For 'Schweiz', 'Suisse', and 'Svizzera', Wikipedia and MySwitzerland.ch are constant results, as well as a map of Switzerland. In addition, each SERP integrates News as a second search result, but similarities in the results end here. Where the official political portal admin.ch appears both on Google Suisse and Google Svizzera, it is absent from Google Schweiz.

The SERP of 'Svizzera' on Google Svizzera highlights images as well, which differs from Google Schweiz and Google Suisse. And whereas news sources on Google Schweiz and Google Suisse are actually Swiss, Google Svizzera displays news only from Italian (!) media. Yet another very different world is the one of Google Svizra: most of the results are websites of national media stations.

Maybe we should not be surprised to get different results. Ethan Zuckerman writes:

> When we look for information through most search engines, the language we use to build a query limits the results we get. Search Google in the United States for "apple" and you won't get the same results as you would get by searching for the Spanish equivalent, "*manzana*," on Google.mx. This makes sense, of course – many of the people searching in the United States would prefer English-language results. But this limitation can constrain what information is available.[15]

Indeed, this 'constraint' on the availability of information is very real. It is even more important in our case, considering that our examples all come from one single platform

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14. See the screenshots on networkcultures.org/publications for a side-by-side comparison.
15. Ethan Zuckerman, *Rewire: Digital Cosmopolitans in the Age of Connection*, New York: W. W. Norton & Company, 2013, pp. 164-165.

Fig. 3. Searching for 'Svizra' on Google Svizra (i.e. google.ch in Romansh).

(google.ch), i.e. from the same country. Is it still appropriate to declare what 'makes sense' based on majorities? The Swiss law defines four official languages without privileging one over the others – is it acceptable that citizens of the *same* country get different information depending on the language they use?

What Is in Switzerland Stays in Switzerland

'So what?' you might say. If we are looking for different pieces of information than we are presented with, all we have to do is search again, search differently... But in practice, our next search will most probably not be independent of our first query, even without taking into account filter bubble issues. If our keywords do not trigger the results we expect, we will adjust our search by modifying or adding a keyword. We might not even have to type; Google's 'Related Searches' are just a click away.

Fig. 4. Related searches to 'Switzerland' on Google Switzerland.

Have you ever misspelled a word in the search query field? Google's algorithms will immediately ask 'Did you mean…?' and suggest the corrected word. Even without misspelling, Google's autocompletion will suggests words and expressions to us *before we finish typing*. Thus, these algorithms mediate semantically between what we *mean* and which *words* we will use to describe it. All of them are so-called 'linguistic prosthesis', potentially impacting the written expression of our thoughts.[16]
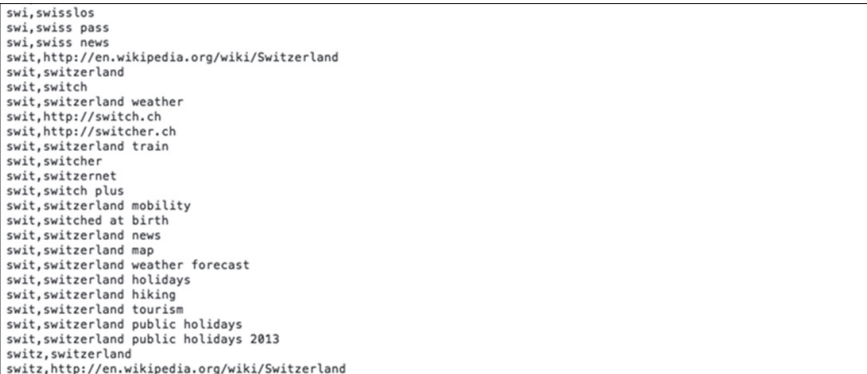
Fig. 5. An excerpt of autocompletion retrievals why typing 'Switzerland' (to the right of the comma are Google's autosuggestions for the expression on the left).

Just as Rover, the big white balloon, prevents the Prisoner from leaving the village, algorithms may prevent a user's potential search queries from escaping the lexicon with which they are familiar by suggesting words whose meanings make sense for Google. The algorithms create and impose their own invisible hermeneutics by interpreting words, reframing queries, and shaping entire semantic fields according to their own rules-based associations of words and their meaning.

Behind the Scenes: How Words Are Grouped and Sold
Remember how a Google search triggers not only search results but also ads? On Google AdWords, advertisers can consult Google's ranking of keywords, including

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16. Anna Jobin and Frederic Kaplan, 'Are Google's Linguistic Prosthesis Biased Towards Commercially More Interesting Expressions? A Preliminary Study on the Linguistic Effects of Autocompletion Algorithms', *Digital Humanities 2013 Conference Abstracts*, Lincoln, NE: Center for Digital Research in the Humanities, 2013, pp. 245-248.

their popularity and estimated price (cost per click, or CPC) on the Keyword Planner (formerly known as Keyword Tool), and are able to buy keywords; i.e. bid on those with which they would like to associate their ad.[17]

It might not be a surprise that the way the Keyword Planner deals with words is limiting and far from transparent. The Keyword Planner is not transparent for the same reasons that the search above has shown: because the Keyword Planner presents groups and lists of words without explaining how the lists were established. The Planner is limiting because words and expressions find themselves categorized in certain groups of meanings, thereby dismissing other interpretations.

Google suggests certain things as pertinent Ad group ideas related to the keyword 'Schweiz' for all languages and all locations. The Ad group ideas are sorted 'by relevance'; it is not entirely clear how this relevance has been established however. As for the categorizing, it appears rather arbitrary. Why would 'Wohnungen Schweiz' ('Appartments Switzerland') be in 'Schweiz Sehenswürdigkeiten' ('Switzerland Sights') rather than in 'Schweiz Immobilien' ('Switzerland Realties')? How can 'der Schweiz' ('the Switzerland', using a wrong article) be a category? What is the difference between the categories 'Jobs Schweiz' (Jobs Switzerland) and 'Stellenangebote' ('Job Offers')? Why is 'Schweizer' ('Swiss') a category on its own, including keywords such as 'Schweizer Wetter' ('Swiss Weather'), which would make more sense within 'Wetter Schweiz' ('Weather Switzerland')? These examples are evidence of a tremendous lack of semantic understanding, which does not prevent the platform from patronizing users by suggesting these (non-)categories as valuable information to be taken into account.

Another striking aspect are the different ad prices: the suggested price for 'Schweiz' is 0.66 CHF, the one for 'Switzerland' 0.41 CHF, for 'Suisse' 0.35 CHF, for 'Svizzera' 0.2 CHF, and no suggested price for 'Svizra'.

It may not be surprising that the prices, Ad group and keyword ideas for 'Schweiz', 'Suisse', 'Svizzera', 'Svizera', and 'Swizerland' are not congruent. After all, Google probably bases its suggestions on people's search queries and the potential search results, and people who search in a certain language might be more likely to look for a specific topic than people searching in another language. When many people searching for 'Svizzera' are looking for work-related results, Google's algorithms will deem everything around 'lavoro/lavorare in Svizzera' ('work in Switzerland') to be most relevant for the query 'Svizzera'. If most people searching for 'Schweiz' do so with regard to tourism or housing, this will be reflected in what Google associates with 'Schweiz'. This seems logical, but the problem lies in the fact that we find ourselves very quickly confined within a world of meaning based on our language preference, constantly confronted with supposedly relevant meanings established through algorithmic procedures. No disambiguation, no freedom, and no accountability, only conformity.

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17. According to Micky Lee, *Free Information?*, both the providing of a ranking and the commodification of keywords are part of the three main values Google sells to the advertisers, the third being the Google Search user's attention.

The 'Word Selling' Business Becomes a Trade of 'Meaning'

The Prisoner illustrates with astonishing accuracy our relationship with Google by raising crucial questions: What processes are shaping our representation of the world? Who is in charge? Why is it impossible to get away? What does it mean to be free? *The Prisoner* finds himself trapped in a pleasant yet mysterious village where everyone refers to him as 'Number Six'. He opposes that designation, proclaiming 'I am not a number. I am a free man.'

It is in the same spirit that we criticize Google for erasing the distinction between *words* and *meaning*. A complex structure of integrated processes offers its own fragmented and oriented interpretation of the world through query results proposed as relevant, accurate, and meaningful. While answers to users' queries are rephrased or reframed by obscure rules and words proposed as packages, a major shift occurs: the words selling business become a trade of meanings. From Saussure to Wittgenstein, Berger, Luckmann, and beyond, countless scholars have pointed out how power structures are reflected by, built into, and maintained through language. The fundamental question is, then, what kind of power is embedded in Google's deconstruction and contextual reconfigurations of words such as 'Switzerland'?

A first answer could be found if we look at *The Prisoner's* village. What is most disturbing is not the display of power and control over information that we can actually see, but those that are concealed, out of reach. We still have limited technical and theoretical tools with which to understand how information is processed within Google.[18] Moreover – not unlike Lewis Mumford's concept of mega-machines – we know that we are an active part of a huge, epistemic infrastructure that includes rulers and managers, yet the different roles and the responsibilities are blurred. The lack of transparency and accountability of Google, by pretending to simply mirror the collective actions of its users, sets an asymmetric power relationship. This discourse constructed and maintained through practices operates like a mega-machine:

> The perception of the system as providing the limits to action (and possibility) rather than an actual (locatable) ruler, helps authority defuse most of the resistance from democratic technics. This is not to argue there are not individuals or groups with power in society but, that such power is partly masked by the technological system's "needs".[19]

A second level of power is economic, and this is explicitly at play when considering the strategic moves of major web companies. Various information retrieval systems – search engines in their many forms – find themselves at the core of a long-lasting struggle for influence, still largely dominated by Google, over the booming capitalist

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18. Which is why we agree with Lev Manovich (*Software Takes Command: Extending the Language of New Media,* New York and London: Bloomsbury, 2013) and Barocas et al. (Solon Barocas, Sophie Hood, and Malte Ziewitz, 'Governing Algorithms: A Provocation Piece', *SSRN Scholarly Paper*, Rochester, NY: Social Science Research Network (2013), http://ssrn.com/abstract=2245322 or http://dx.doi.org/10.2139/ssrn.2245322) that the study of software and, more fundamentally, algorithms deserves our utmost attention.
19. Christopher May, 'The Information Society as Mega-Machine', *Information, Communication & Society* 3 (2000): 251.

economy of word commodification. While it is impossible to assess how this domain will evolve, such confrontations by search engines overwhelmingly operated by business-oriented private companies challenge the very idea of common good.

Finally, at a more fundamental level, endeavours to control and market questions, answers, words, and meaning could also be perceived as a major shift in the way we think as a society. In his book *The Order of Things*, Michel Foucault defines the concept of *episteme* as 'the strategic apparatus which permits of separating out from among all the statements which are possible those that will be acceptable within, I won't say a scientific theory, but a field of scientificity, and which it is possible to say are true or false'.[20] While Foucault refers to change in modern society and the rise of science as the leading way to conceptualize the world, we might ask ourselves to what extent do hundreds of billions of monthly queries, with their processed answers, participate in the framing of our collective way of recognizing what is 'possible' and what is 'acceptable'. The issue here is not about a kind of censorship or about voluntary control of content but concerns a much more subtle and distributed influence in which the ontological status of information depends on its transformation and translation in the multiple processes we have described above. In other words, will the *googleability* of a piece of information become a condition of its social existence?

At this general level, the critical issue in terms of power and accountability is the search engines' non-visibility. If we accept this situation as such we would be following the path of the vast majority of *The Prisoner*'s village inhabitants: thankful and happy to live in a cozy, tidy, and artificial place they call their world. However, opening the 'black box' of meaning (re-)production through search engines could be an unsettling experience as we discover how much we have already delegated to algorithms and their owners, and how we are all entangled through our practices. Hopefully, transparency also would lay the ground for a much needed public debate about how to conceptualize systems where the (re-)production of meaning is not subordinated to economic interests. At this point it's important to remember how the search engine operates between us and our words.

NB: All data from Google (i.e. screenshots of SERPs, autocompletion, Keyword Planner data)
were retrieved on 11 September 2013, between 11.30am and 2pm, from Lausanne, Switzerland.

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