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The Online World: What You See Has Been Chosen

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Background

We depend on "search" heavily. We search for all kinds of information. For me, as an English major, to search is a key ability that I have to acquire. However, at times I would question the search results. I question why some certain entry is on the top list, why so many information is shown in pictures, and why this set of contents are shown, instead of another set. Later I realized that it is the "algorithms" that determine for me what I see in the online world. I would like to fathom what potential impacts the algorithms can have on us, the users, and its implicit influence over decision making through searching.

Keywords

algorithms, anti-trust, search rankings, decision making

Literature Review

Elmer-Dewitt, Philip. "Uh oh. What did I just give Google?" *Time.com.* Fortune.com. 31 May. 2015. Web. 1 June 2015.

The writer's own experience of using Google's service led him to think that Google is no longer preserving user privacy. "Google collects information about me in two ways: There's the kind of information I volunteered when I signed up for a Google account and the information they collect when I use their services." That means when he uses Google Photo, he actually volunteers to give the company the right to use his, and his family's profile pictures—this also means your friend is able to give Google your profile picture. I would like

to use this case to back up my statement that the users are exposed to the lack of privacy in using technology company's services.

Foucault, Michael. "*Discipline and Punish: The Birth of the Prison*." Pantheon Books, 1977. Ch.3. Web. 23 Apr. 2015.

Bentham conceives a building complex where a tower of supervision—namely, authority—is standing out in the center of a circle composed of cells where the authorities can hold workers, psychopaths, etc. The authorities need only one supervisor in the central tower to monitor a plenty of people in the cells, for experimental purposes or supervision. The supervisor, however, does not always need to stay full alert to the person in their own cells, for the supervisor in the tower is invisible to the inmates owing to the strong light emitting from the tower. Foucault uses Bentham's idea of jail to construct a social theory that the inmates are extremely inferior. I'd like to describe Internet users and algorithm programmers as inmates and supervisors respectively to underpin my statement to the effect that Internet users are stringently deprived of their rights and can do little to go around in order to change the situation.

Gibbs, Samuel. "Apple Co-founder Steve Wozniak Says Humans Will Be Robots' Pets." *The Guardian*, 25 June 2015. Web. 27 June 2015.

Apple's co-founder Steve Wozniak thinks that the world will eventually be controlled by robots powered by artificial intelligence, and humans will receive orders from them. He also stated that robots are going to be smarter than humans. He is not the only one who concern about this issue. Many important technology developers and scientists, including Tesla's Elon Musk and Stephen Hawking, have cautioned the public against the use of AI since algorithms think on their own and they are now taking the initiative to recommend users "what to do next"—even before we find ourselves in need of what they recommend. I'd like to use this news as part of my conclusion.

Hogan, Mél, and Tamara Shepherd. "Information Ownership and Materiality in an Age of Big Data Surveillance." *Journal of Information Policy* 5: 6-31. *JSTOR*. Web. 14 Sept. 2015.

Information now is collected in a big data center. But it is the owner of the center who has the right to claim the ownership of the information, instead of the providers of the information. When the owner uses the data, the owner does not necessarily need to ask for permission. Even though the policy of "enhancing the democratic potential of information stewardship" is put forth, question remains. To me, this source can work in accordance with the idea of panopticon.

Lao, Marina "'Neutral' Search As A Basis for Antitrust Action?" *Harvard Journal of Law & Technology Occasional*. July 2013. Web. 7 Oct. 2015.

The author quotes an event in which the Federal Trade Commission (FTC) closed a probe into whether Google's algorithms violate the U.S. antitrust laws in a way to boost its profits. Later he states that even though the FTC said "Google did not manipulate its search algorithms," the fact that Google does not adopt search neutrality is an undeniable action that has altered the way how users search. This source provides evidence that the search result—with the help of algorithms—is not neutral; rather it is "biased." Users are already under influence of the filter mechanism.

Pariser, Eli. "Beware Online 'Filter Bubbles.'" Online lecture. *TED.com*. TED Conference, Mar. 2011. Web. 10 Apr. 2015.

Filter bubble is what every Internet user sees in the online world when they search. It looks perfect from the inside as it is a perfect bubble and full of a wide variety of information users have looked up. However, users do not get to see what is outside the bubble thanks to Google's algorithms, a mechanism that programs what users see in their search result. In other words, the algorithms shape the search results in a certain way. As a result, "we need to

make sure that they also show us things that are uncomfortable or challenging or important" so as to really participate the world. This talk basically is the motive why I would like to talk about this topic so I think I will introduce this very talk in the beginning of my paper, to let the readers know why the topic matters and how is it important.

Research Question

Do Google's algorithms have some sort of potential risk, and do they have the ability to shape its users interests? We love Google, and we love to google. "Why don't you google it?" pops up here and there in our daily life. The more we google, the more "accurate" the results would be due to something called "customization." The reason Google remembers our habit is that you have a Google account, especially the younger generation. From Gmail to Google Map to YouTube, all kinds of free service, what we need to access them is a single account, an almighty account. When we watch a movie trailer on YouTube, Google records; when we look for directions to Vieshow Cinema, Google records. Step by step, our habit is formed, so is our customized Google's search results. Here is an example. One time when I searched for information about Salvador Dali on the Google bar, it showed results about *Spellbound*, a movie by Alfred Hitchcock, with a background setting by Dali; but what I in effect would like to see was his surrealistic style art works, *The Persistence of Memory* and *Premonition of Civil War*. My friend's search result was instead what I was looking for. All this is due to the algorithms. Of course, it is not a problem to narrow the key words, yet there is more in it. And Google is not the only company using algorithms; Yelp, Pinterest, Instagram, every platform that you use to search, use them. The potential danger of the algorithms is that the automatic-on filter mechanism is preventing users from seeing what actually counts now that the results are jammed with articles from content farms. As a result, users are living in a world where everything is being filtered before publishing.

We, as Internet users, depend on “Internet” heavily, on all kinds of devices for a wide variety of purposes. For me, an English major, to search is a key ability that I have to acquire to bring my assignments to completion. However, at times I would question the search results. I would question why some certain entry is on the top list, why some information is shown in the form of pictures, and why this set of contents is shown, instead of another. Later I realized that it is the “algorithms” that determine for me what I see in the online world. Take Google as an example. The services it provides are our favorites. “Why don’t you google it?” pops up here and there in our daily conversations. The more we google, the more “accurate” the results would be due to “customization,” which initially was programmed to help us find what we would like to know quickly in searching. However, the customization is actually a filter mechanism. Customization works well on the ground that we all have a Google account—especially the younger generation—which we use for many services from Gmail to Google Map to YouTube. Therefore, when we watch a movie trailer on YouTube, Google records; when we look for directions to Vieshow Cinema, Google records, too. Step by step, our search habits are formed, so is our customized Google’s search results processed by algorithms. The potential danger of algorithms is that the automatic-on filter mechanism is filtering search results before they are presented and therefore shape people’s interests. This paper is going to deal with the negative impact of Google’s search rankings and its implicit influence over decision making through algorithms.

With the intervention of algorithmic mechanism, it is next to impossible to get a set of untouched search results. Users are becoming easier to be content with what they see, not even taking the initiative to search. Eli Pariser, the chief executive of Upworthy, a website for meaningful viral content, coined the jargon “filter bubble”, which means a “personal, unique universe of information that you live in online” (Pariser). To him, the filter bubble is preventing

users from seeing what is important and challenging. Internet users are living in “a world in which the Internet is showing us what it thinks we want to see, but not necessarily what we need to see.” In other words, the algorithmic mechanism, or the filter bubble is a circle which shapes our visions and its edge is the boundary between all the information users can see and the unknown world in beyond. The good thing about it is that users are ensured to see topics or links that match their interests or hobbies; however, under the current algorithms, the drawback is that users have very limited ability to see over the bubbles. What is more daunting is that users “do not decide what gets in” and they “don’t actually see what gets edited out.” In other words, users are not granted the right to know how the filter bubble processes.

Few people know that there is an algorithmic mechanism working behind the scene, not to mention the number of people who understand how it works in practice. Based on TechTerms, an online dictionary of computer and Internet terms, “an algorithm is a set of instructions designed to perform a specific task.” According to BusinessDictionary, a computer algorithm is a “step by step procedure designed to perform an operation, and which will lead to the sought result if followed correctly.” For example, Google Maps use Route Finding Algorithm to determine for its users the roads to take to Vieshow Cinemas. Even how one gets to school from home is a kind of algorithm—bike, MRT station, and then walk; after all, it is a set of steps to accomplish a goal.

The algorithms, or the filter bubble, is of such great power that it is capable of influencing users’ psychological decisions without being noticed, if manipulated. Based on a recent research conducted by the world-renowned psychologist, Dr. Robert Epstein, Google is capable of altering the outcome of the 2016 presidential election in the US. Dr. Epstein argued that “Google, Inc. has amassed far more power to control elections” and that “Google’s search algorithm can easily shift the voting preferences of undecided voters by 20 percent or more.” Nicole Fersko, an instructor specializing in communications at the American Universities of

Rome, stated in the department website that

> "We—the users—have learned that higher rankings mean better material, which is why 50 percent of our clicks go to the first two items, with more than 90 percent of all clicks going to that precious first search page. Unfortunately, when it comes to elections, that extreme trust we have developed makes us vulnerable to manipulation."

Dr. Epstein also maintained that "Virtually no one knows they are being manipulated." The possible "redirection" to a certain candidate in a presidential election, undoubtedly, is a product of the filter bubble: users do not know what gets in and what gets edited out. The rankings on the search page have led the corporation to a billion-dollar fine in Europe and India for the neutrality of the search results, based on BloombergBusiness's news published on April 14th. Google has been attempting to influence web browsers to purchase certain products and services over other companies. For example, when one types in "restaurant" in the search bar, the presentation of search results are already filtered based on one's search history, location, and, the most important of all, Google's own social medium, Google+. In addition, Google's own services are usually on the top three items because Google knows that fifty percent of the clicks goes to the first two items and ninety percent goes to the first page. Google, in a sense, is manipulating its users in many ways just as the scandal that Facebook conducted an experiment to the effect that how the news feed could influence the Facebook users' emotions without notifying in advance.

Nonetheless, Google did not encounter any punishment in the U.S.A. in the similar anti-trust case. The Federal Trade Commission reached an agreement that "although the practice—favoring its own content in the presentation of search results—may have an incidental negative impact on some competitors, it was a product improvement that likely benefited consumers" (Lao 2). That being said, the acquittal failed to prove that the

presentation of search items are neutralized or have a standard version, which supports the idea that the presentation, without a doubt, is manipulated in favor of certain products or services and that Google can adopt its biased search algorithms with impunity.

The algorithms, on the other hand, can be used by the law enforcement agencies to carry out pre-crime investigations or preventions. As long as people use social media or cell phones, government officials can monitor citizens in real time. After the 9/11 attack, the Patriot Act took effect. The Act grants the National Security Agencies the rights to collet "'books, records, papers, documents, and other items' that are 'relevant' to 'an authorized investigation (Schwartz).'" "Metadata for every domestic phone call from Verizon and other carriers, hundreds of billions of records in all, are considered 'relevant (Schwartz).'" In other words, many people's privacy has been deprived of. Algorithms make pre-crime prevention possible, even though it sounds rather futuristic, just as it is in the 2002 science-fiction movie *Minority Report*. In the movie, the protagonist, a police officer in Pre-crime Department, is able to thwart a crime prior to being committed with the help of precogs. In real life—although precogs do not exist—government officials use algorithms to examine posts or messages by prospective criminals or terrorists on social media; in some cases, they do prevent the attacks from taking place. For example, according to a November 11th news on USA Today, the campus police arrested a university male student who posted on Yik Yak, a social medium consisted of anonymous posts, that "I'm going to shoot any black people tomorrow, so be ready." Another news report on February 25th says that three New York men were arrested in an alleged plot to join terror group. The two cases above have shown that the law enforcement is able to monitor citizens and take action even before things go bad.

The surveillance of algorithms, similar to Michel Foucault's panopticon, has therefore changed the way how terrorists communicate with one another. They understand that the authorities concerned are keeping their eyes on them, so they either take a detour or seek

solutions. Under the condition that social media and messengers can no longer be the platform where exchange of information takes place, terrorists turn to online games on Play Station 4, with which they can communicate with one another during gaming with a microphone, leaving no traces for intelligence agencies to investigate, or messengers featuring encrypted messages that even the program developers cannot decrypt. Therefore, the act of using algorithms has turned counterterrorism even harder. The algorithms also changed the users' online behavior. For example, Facebook fan pages owners are well aware of that if their followers do not "like" or comment on their posts, the posts are less likely to be shown in the followers' news feed thanks to Facebook's algorithms despite the fact that the users have liked the page. As a consequence, many fan page owners would tailor the posts to meet the algorithms in order to reach a wider audience and to earn more money, such as from "I'm going to tell a story" to "I'm going to tell everybody a story." Some Facebook fan pager owners maintain that the algorithms have made their posts not original and creative as it could be when blogs were still popular. The influence of current algorithms hove covered so many areas that it may not be appropriate, as long as it hinders human's own decision making.

The search algorithms, or the filter bubbles, is the process of editing out information that the computers think its users do not want to see. Even though the initial idea was to help Internet users find desired search items faster and easier, the algorithms are now taking the initiative to present search items based on personalization or customization. In reality, the invention of the customization on social platforms is actually the result of targeting or classifying users through advertisement since the corporations—Google, Facebook, Amazon, or Netfilx—need to make profits out of it. As a consequence, some argue that users' search habits are formed out of corporations' greedy desire. What's more is that Apple's co-founder Steve Wozniak thinks that the algorithms will be so powerful enough to take control of the world, making human beings their pets because today's flow of information does not depend

on users any more, but on computers that is constantly presenting “recommendations” to users—a result of customization (Samuel). Users no longer search desired information actively and there is even a recommendations of what to type in in the search bar. In other words, computers can easily decide what users can see, or what it wants users to see, an outcome of search algorithms that is able to influence users’ decision from over which restaurant to go for dinner to which presidential candidate better fits my vision. Little do some undecided voters know that the search rankings can be a place where presidential campaigns take place. Algorithms, all in all, should be tailored to a point where users can decide what gets in in the bubbles and what gets out.

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