# Filter Bubbles

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#### Abstract

The term 'filter bubble' was coined by Eli Pariser. This paper will explore the implications of filter bubbles on society, and how they have changed the internet. This paper will describe how filter bubbles have affected society and describe how a filter of any kind necessarily dictates how society forms opinions; Thus, this paper will explain why filter bubbles are an important factor for society.

## 1 Introduction

The idea of filter bubbles was created by Eli Pariser in his book "The Filter Bubble: What the Internet Is Hiding from You" [1]. The idea relates to how the public disseminates content, and how the internet has changed the way we consume information. In short, the internet has allowed (if not required) websites to develop automated algorithms for prioritizing and delivering content to users. One of the key points Pariser makes is that the change in how we filter information has led to people being 'lazier' in their consumption of information.

Pariser describes how although people may have skipped over the front page of a newspaper, they would still be exposed to the headlines. Quoting Clary Shark, Pariser writes "But to do so, they had to at least glance at the front page – and so, if there was a huge political scandal, enough people would know about it to make an impact at the polls" [1]. In contrast, Pariser goes on, the internet allows for filtering out content before it even reaches the user. The modern internet now hinges on having some form of filtering in place, and many services (such as Google, YouTube, and other social media) extend this filter into the bubble that Pariser describes.

This brings up the question of how filter bubbles are affecting society. Pariser argues that filter bubbles are a 'threat to democracy', and take power away from the people. Websites are now the deciders of what content you do (or don't) see.

## 2 Analysis

#### 2.1 Historic Prevalence in News

The internet has enabled any person to generate content and share it with the world. This has led to an explosion of information, and the need to filter out the noise. The goal of the internet ultimately is to spread information. News sites and social media platforms at the end of the day need to stay profitable. Filter bubbles aren't only pertinent to these types of sites, but any with a large amount of content is reliant on filtering.

Filter bubbles are absolutely an important factor for society. Whether a website wants to find the next article that you are most likely going to click on, or Amazon trying to suggest to you new products in their story, filter bubbles dictate the content that people see.

A similar idea to filter bubbles is the idea of echo chambers. Dr. Richard Fletcher points out an important distinction between filter bubbles and echo chambers:

"An echo chamber is what might happen when we are overexposed to news that we like or agree with, potentially distorting our perception of reality because we see too much of one side, not enough of the other, and we start to think perhaps that reality is like this.

Filter bubbles describe a situation where news that we dislike or disagree with is

automatically filtered out and this might have the effect of narrowing what we know. This distinction is important because echo chambers could be a result of filtering or they could be the result of other processes, but filter bubbles have to be the result of algorithmic filtering." [2]

In essence, all filter bubbles are echo chambers, but not necessarily vice-versa. This implication that filter bubbles are echo chambers would suggest that they would lead to a narrowing of the mind.

Note that Dr. Fletcher finds that these types of filter bubbles tended to result in a person viewing more media from a varying amount of sources than they would have otherwise [2].

## 2.2 Terminology

The decision to use the term 'bubble' when describing filters implies a similarity to other types of bubbles. Bubbles are fragile and can be popped easily. Some examples are the housing [3] and tulip bubbles [4]. Eli Pariser thus implies that the usage of these types of automated filters is fragile and subject to public opinion.

It must be considered what would happen if this bubble were to 'pop'. In the two above examples, the popping of the bubble led to great economic issues and volatility. For the filter bubble to pop would likely lead to an enormous change in paradigm for how the internet organizes content.

It may be unfair to label this model as a bubble, as unlike the housing and tulip bubbles, the filter bubble is not a result of speculation. While investments are certainly made into the algorithms that go behind these filters, these algorithms at their core solve current and present problems.

For this 'bubble' to pop, the underlying content and media would similarly need to pop. The algorithms and filters used in modern-day simply prioritize and serve the content; even a simple 'most recently created' algorithm would be considered a filter.

#### 2.3 Prevalence in other Media

Though Pariser claims that filter bubbles are recent, in reality, these types of filters have always existed. Regardless of what medium, the source of information has always been filtered. Someone had to write the article, someone had to decide what to put on the front page, and someone had to decide what to put on the evening news. The difference with the internet is that the filter is now automated, and can be based on a person's behavior and preferences (hence the bubble).

In my experience, I have found that filter bubbles rely on proper development, balance, and scope. I have seen countless times people on YouTube attribute their success/failures to 'the algorithm'. Similarly, these types of algorithms apply to other social platforms and have faced their fair share of controversy. The most recent example is the 2020 US Presidential Election, where Facebook and Twitter were accused of censoring content [5].

#### 2.4 TikTok

Similarly to Facebook's debacle, TikTok has faced numerous controversies regarding its algorithms. TikTok has had countless trends that have largely affected our society as a whole. From its teeth filing trend [6] to the 'Kia/Hyundai challenge' where people would steal cars [7], these trends have had a large impact on society.

I experienced the effects of TikTok's algorithm when my mother's car was stolen. Many insurance companies began refusing to insure Kia and Hyundai cars, leading to a large spike in insurance rates for these cars.

Not only did TikTok not filter these types of videos, it actively delivered them to users.

## 3 Conclusion

It is clear to see that filter bubbles are an important factor for society. The biggest bubble when it comes to these filters is how well they are designed and developed. Though Richard

Fletcher said, "focusing on filter bubbles can cause us to misunderstand the mechanisms at play and might also be distracting us.", he goes on to admit that "we need to critically examine the effects of algorithmic selection on news use".

In short, Fletcher agrees that we should be aware and critical of these types of filters and algorithms.

## References

- [1] Eli Pariser. The Filter Bubble: What the Internet is Hiding from you. The Penguin Press, 2011.
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- [5] Vera Bergengruen and Billy Perrigo. Facebook acted too late to tackle misinformation on 2020 election, report finds. *Time*, 2021(5949210), 2021.
- [6] Allyson Chiu. Millions have watched tiktokers file their own teeth. now, two of these diy dentists say: Don't try it. *The Washington Post*, 2020(20), 2020.
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## Response

Where feasible, I've incorporated the feedback given from the review. All quotations now properly use double quotes ("") instead of single quotes ("). There was also a slight revision in the abstract to include more detail. Unfortunately, some of the other pieces of feedback were regarding the PDF -> DOCX conversion, as I had originally written this in LATEX, and some of the formatting issues (italics, hyphenation, etc.) were lost in the conversion.

Aside from that, I'm reasonably happy weith the result of my essay, and greatly appreciate the feedback given.