on

Framing our next president

Beware of the filter bubble

Ella Hindriks, C4
Essay SCO/TO C3.3
Word count: 2650/2800

Not long after America's presidential elections in 2016 rumour had it that the votes were not rightfully earned. Not only did the Democrats accuse the Republicans from miscounting, many believed that an algorithm of Facebook and fake news on that website had a major influence on the results.

In short: the algorithm in question is fed by the user's behaviour. If you like pictures of baby animals, Facebook registers the times that you see these pictures and will suggest pages, articles, videos, advertisement and people around that theme. Then the algorithm combines your and other data and will become smarter and continuously adapt to the user's online behaviour. The heavier Facebook is used, the more data is generated. Meaning that Facebook's suggestions to the user will be personalised better. And with more data available, this personalization will be successfully optimized. This is an ongoing circle, called the filter bubble. More on that later in this paper.

The accusation contains that this ongoing circle of personalized content causes an incomplete view on reality. And if Facebook users have an incomplete or incorrect view of reality, there is a chance that this influenced their vote. Would these users have voted differently if they had been confronted with two-sighted articles?

In this paper research about the filter bubble and personalized content will be compared. Is a filter bubble a concept to fear? Can this concept indeed influence Dutch elections? This last question will be applied on the case of Dutch

parliamentary elections, which will be held in spring 2017.

At first a definition of personalized content will be given.

What is personalized content? “A personalized content system enables a user with a communications device to convert and/or passively receive pre-selected content from multiple resources.” (Scannel, 2006)[1]. In other words: personalized content is a way to manage the user’s experience on one's website. It is a marketing tool, which can be used for engagement, but also for advertisements. For successful personalized content, for example when a customer made a purchase, data is needed. Maybe this customer is looking for gadgets during his working hours because he is bored, but he never buys. The cookies left on his search device will cause for advertisements on other websites that he is visiting, for example Facebook. And then, at 9pm he clicks on one of this advertisements and returns to the site. How can he be pursued to to order the items he looked up earlier? A personalized feature on the website is one of options. What if he is tempted with a 20% off?

Another example is Google. There is this male that always searches for the newest Volvo and the newest iPhone. Based on his cookies and location services, Google knows that this human being works at a factory. And there is this girl, who is a teacher and she follows a Facebook page called *cutepolish Nail Designs*. On day these two both google for ‘Jaguar’. Google filters on their search history plus cookies and will show him pictures of the specific car, while she will find pictures of the animal. Personalized content.

But what if they both would never learn about the existence of the other ‘Jaguar’? That if they search they would always get the exampled ‘Jaguar’? This is called the (search) filter bubble. Eli Pariser, who came up with the term *filter bubble,* places this in a more historical context and asks himself what had really happened: “*In a broadcast society, there where this gatekeepers, the editors (…) What we are seeing*

is more a passing of the torch. From human gatekeepers to algorithmic ones." (Pariser, 2011)[2] . In other words: it is a frame through which we see the world, now controlled by an algorithm (a designed program that in this case updates its own behaviour: the more data is generated, the more its effectiveness increases) instead of a human being.

In contrast, one can (more) easily avoid human control. According to Pariser, the problem is that these Algorithms do not have an ethical filter embedded.

A deeper dive into this filter bubble. Researchers from the University of Amsterdam have found that there are two kinds of filter bubbles.[3] The first one is the one that is described above: an algorithm selecting information based on our behaviour in the past and present. On the contrary, the other one is created by the user himself: he can choose the media he uses and therefore choose to get engaged with only one kind of information, for example left-oriented political topics. This last filter bubble is called self-selected personalisation, one selects for themselves like minded information. (Or one does not.)

The researchers from Amsterdam's university also questioned what we know about filter bubbles. They say that already in 2003 the effect of selected personalisation was questioned, in terms of search optimization. What is the effect on the voting choice when it comes to the page ranking that causes webpages to be on top of the search results?

Now, after the American elections the question raises again: what is the effect and how does it harm the society? The fact that there is not yet a covering answer in the ever changing (digital) world shows the relevance of the question. Even Mark Zuckerberg, CEO of Facebook, avoided this question when asked about the influence of Facebook and its algorithm on the elections. He reacted with a long note on his Facebook page, mainly focussing on the subjective proposition of 'the truth', the

positive fact that his social platform activated many people to vote and explaining what Facebook does to oppose hoaxes and fake news. Many journalists wanted him to clarify the influence of the algorithm, but he simply could not. [4]

Now that we have seen what a filter bubble contains, some questions around the topic. Why is the filter bubble supposed to be a good thing? And why is the filter bubble supposed to be a bad thing?

The idea of the filter bubble is that it helps you find relevant results. Results to your liking. Internet does not divide random content to its users. This personalisation is based on over fifty different signals. But this also causes something different. The algorithm may know more about the user than the user knows about himself. The content offered is based on your likes, search commands and the clicks you make. In the example that Pariser uses: he likes to read about friends with a different political view, but apparently he interacts more on friends with a similar opinion, resulting in an algorithm showing him a lot of similar opinions. Metaphorically speaking: we could end up with a plate of our favorite vegetables and become one-sided vegetarians or seeing only one side of the 'Jaguar'. That is just one big disadvantage of this filter bubble.

Another disadvantage is the so called 'fake news'. This was seen a lot around the American elections, especially in and around the Trump-fanbase. Because the users data showed that they would engage with a certain topic, articles that address that topic would show up, especially when similar words are found in the search optimization-elements of the article: the header, the summary and the keywords. Thanks to the filter bubble this fake news will not be provided with a counter argument. It could even result in a kind of invisible propaganda, says Pariser. And from an ethical point of view: that would not make fair elections, would it?

But just as it became clear that the filter bubble has a lot of disadvantages that

could possibly injure society's system of fair voting, *De Correspondent's* journalist Maurits Martijn concludes that the filter bubble does not exist.[5] Or well, it is not empirically proven, not enough. What is proven – this is shown in the earlier referred to findings of the research for the University of Amsterdam – is that people will find other ways to get their not so like-minded news. People do not only consume news on Facebook. Or Google. Nor from their favorite newspaper. People tend to compare their findings. That is the hole in the filter bubble.

Were Pariser continues to think about the transitions that have to be made to solve the problem of the vegetarian plate, the Dutch elections are waiting around the corner. And for integrity's sake, fair voting is a fundamental human right. So in the case of a political party, GroenLinks, a party whose members are very active on a diversity of social media channels, what can be done for successful campaigning? A few situations can be outlined.

At first: a member from the left-wing party will find like minded content in search results and his media feed. These will contain political ideas and social-orientated ideas, as these are his interests. When this member posts about a topic, say equal rights for man and woman, the member now thinks that he is sharing this idea with the wide world. Because that is what the medium is telling him: *share with everyone, we are an open platform*. But the truth might be different. And it was not a human to decide for this. It was the algorithm used.

A first step that can be made is awareness of this member: increase the knowledge of the member so he will be aware of the fact that he is sharing his news with like-minded people. This awareness may already cause a change in attitude. For example: a Facebook post on his timeline. Before the member was ware of the filter bubble he would write something like *This is inspirational. Everyone should think like this*. But in the new situation he would know he is writing to like minded people

and will feel/write more like *This is inspirational. How can we get more people to think like this?*

The behaviour does not have to be changed. The post can be a brickstone in community building. The focus of sharing the news should not only lay in showing an idea or sharing inspirational content, but in the engagement around the person. If the member asks his friends, family and like minded people, conversation will continue. An illustration to this idea: *The member made a video for his campaign and shows it to his family. The next day, his wife shows the video to her college: you know my husband from the New Years Party, right? Here is a video he made.* And the next day he will come home with a new campaign poster to be shared. These people, his wife and college, are now connected to the community by their interest in his life. The brickstone he shared with them now builds to the community.

Second: the party itself can also post with this community-building idea in mind. The filter bubble connects equals, so this is the time to get like minded people involved and make them the living brand.

These two actions together raise a new question: how do we find a broader, maybe new, audience online? One that lays outside of our own network of peers and like-minded people. This can be done through alternative search optimization. By picking keywords of the new target audience, there is still a difference to be made.

When it comes to fake-news, a party member, for example, will cross it while scrolling through his daily news and updates, as well as the innocent-not-knowing-the-truth-citizen. Commenting on the article with the real facts will probably help. Besides that, mostly every community also has a notify-spam icon that should be used in this and similar cases. Especially as political active member it would be a sign of integrity to mark all the fake news you cross. Negative and positive fake news about your own party and party leader, as well as all the fake

news addressing other parties.

Another way to support the campaign goes for the individual party members as well as for the voting citizens. Every time you make a move on the internet, your data is tailored, so you add more boundaries to your own (digital) reality. This does not mean that you should stop browsing the web, to avoid these boundaries, but it does mean that you should deliberately search and read unusual content. In a way these extremist views will be rewarded more by the system. This data is clear and helps the algorithm to select new content that also fits this opinion. You will be rewarded for speaking up. There is a another way to achieve this. Just like in reality, there are different views. If you have a friend with a different view, do not unfriend him! But besides that, do realise that these frames are not only existing online on digital platforms... [6]

Last but not least, finding new platforms to work on might work at the beginning. There is less data to connect with, so that might give the party a jump start in neutral positioning. There is a chance that working together with opposite parties will neutralize the data as well, for two opposite subjects will be connected. This may be true for reality as well. Discussion between party members is good, discussion with other parties is better. Discussion with the people, demos, is the best. And an idea for a discussion topic? The filter bubble. The researches from the Amsterdam University concluded that we should not worry too much about the filter bubble, but it should be discussed. They conclude that the filter bubble is in its child-phase, discussion will prevent a growing blind spot. And yes, the discussion will cause a coloured view by the media. But they are not the only party with an opinion.

At the end of the paper, the following conclusions can be made: the filter bubble is the definition of algorithms that process data into an ecosystem of personalized content. This results in seeing only content from like-minded people,

with a risk on incomplete information.

When it comes to the case of the upcoming Dutch elections, the most valueable advice is to use the algorithm for building your community. If news will be shown to like-minded people, there is a perfect place for discussion and engagement served on plate. This should definitely be used for campaigning.

So, on *Framing our next president*, is the filter bubble to be feared? As stated: the algorithm will eventually show just one side of the coin, just as traditional media end up doing. But people still find ways and will find ways to get a view from multiple sides. **And as long as that is the case, '*Beware of the filter bubble*' is just fake news.**

Literature / Sources

1. Personalized content processing and delivery system and media. Scannel, Robbert (2006). 12 december 2016 from https://www.google.com/patents/US20060123053
2. Beware of the Filter Bubble. Pariser, Eli (2011). 1 december 2016 from https://www.ted.com/talks/eli_pariser_beware_online_filter_bubbles
3. Should we worry about filter bubbles? Zuiderveen Borgesius, Frederik J (2016). Downloaded on 8 december 2016 from https://policyreview.info/articles/analysis/should-we-worry-about-filter-bubbles
4. Mark Zuckerberg stands his ground: says Facebook didn't lead to a Trump Presidency. Heisler, Yoni(2016) http://bgr.com/2016/11/14/2016-election-facebook-fake-stories-zuckerberg/
5. Facebook de schuld geven van Trump. Dát is pas elitair. Martijn, Maurits (2016). De Correspondent. 8 december 2016 from https://decorrespondent.nl/5679/facebook-de-schuld-geven-van-trump-dat-is-pas-elitair/174663324-315e4361
6. How can Facebook and its users burst the filter bubble? Adee, Sally (2016). New Scientist. 12 december 2016 from https://www.newscientist.com/article/2113246-how-can-facebook-and-its-users-burst-the-filter-bubble/
7. Politieke partijen, overbodig of niet? De Lange, Sarah L. Leyenaar, Monique. Jongh, Pieter de. (2014). Raad voor het openbaar bestuur. 10 december 2016 from http://www.rob-rfv.nl/documenten/boekje_politieke_partijen_overbodig_of_nodig.pdf