

# FILTER BUBBLE FIGHTER

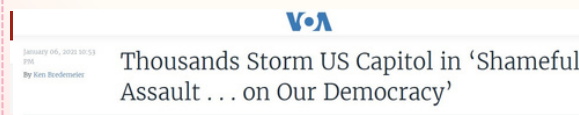


Are we truly enjoying as much content as we want?  
A personalized timeline just for me, an endless feast of shorts...  
Who exactly is the 'algorithm's choice' really for?

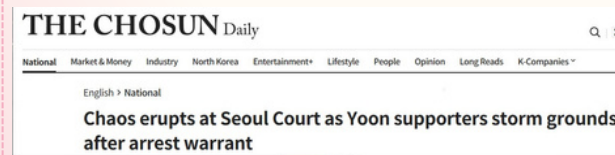
Team B  
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## 21st-century Post-Truth era

Violent incidents that occurred in the United States and South Korea were driven by 'confirmation bias' behind the scenes.



January 6 United States Capitol attack



2025 Seoul Western District Court riot

Both incidents were mobilized through social media  
=> Perceiving reality with a distorted view due to filter bubbles and fake news  
=> Examples that led to extreme actions

This shows that **bias in information consumption** can lead to social conflict and physical violence.

It suggests the need for vigilance against biased information and collective responses at the community level.

## Why does this happen?

**Transnational digital platform companies regulate the flow of information through algorithms.**

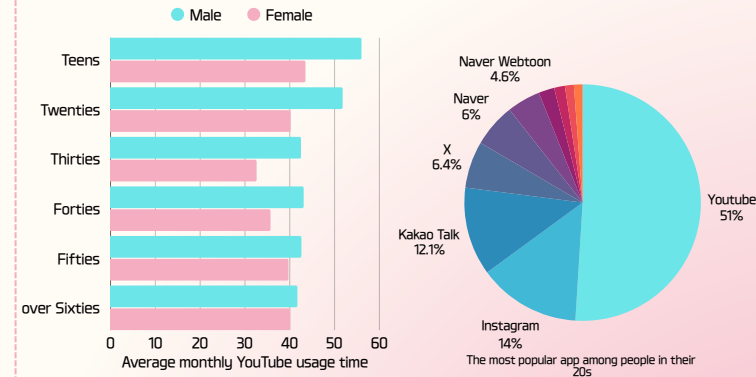
Algorithms show users info that matches their existing views  
=> Users ignore or reject opposing views  
=> Confirmation bias grows stronger

But the current system doesn't address this  
No clear definition of media platforms exists  
No strong international or domestic laws regulate companies  
=> Companies mostly self-regulate  
=> little accountability for filter bubbles and false info

## Target selection

It's not only the elderly who are vulnerable to confirmation bias — the filter bubble phenomenon is also prominent among teenagers and people in their twenties.

High social media usage rate among people in their twenties



People in their 20s mainly use YouTube and Instagram, making them vulnerable to algorithm-driven filter bubbles

## Online-centered social relationships

People in their 20s and 30s prefer connecting with like-minded others on social media, creating closed networks with mostly similar information.

## Familiarity with 'feed consumption'

They're used to consuming platform-recommended content  
=> Less exposure to diverse views and more reinforcement of existing preferences

## Limitations of digital literacy education?

Digital literacy is highlighted to tackle filter bubbles, but education for people in their twenties has been neither systematic nor critical, focusing mainly on technical skills. Many may still fail to recognize filter bubbles. Thus, this project targets people in their twenties.

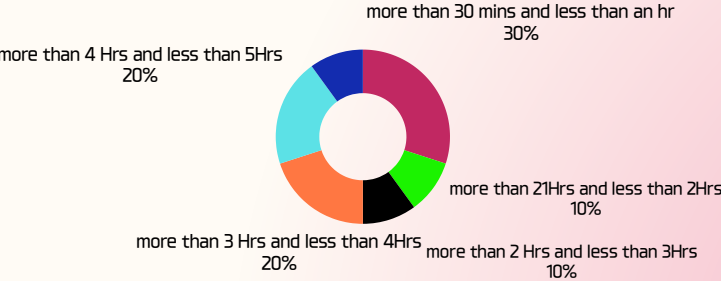
# Experiment: Filter Bubble Fighter

purpose	Survey perception changes of recommendations after clearing viewing history.
Hypothesis	Deleting viewing history will change algorithm perception.
subjects	10 college students in their twenties
Independent variable	Viewing history deletion : yes or no
Dependent variable	Level of algorithm awareness
method	Usual YouTube usage and algorithm Pre-survey on YouTube usage and algorithm awareness.  Use YouTube 3 days after auto-deleting history.  Then, post-survey on algorithm awareness

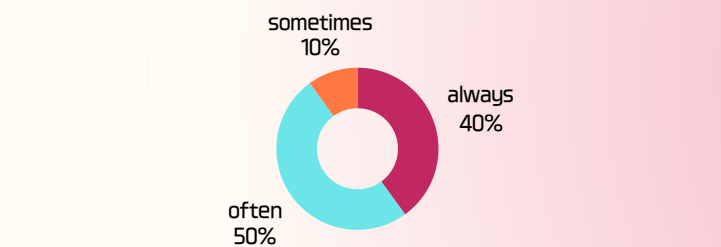
If you're ready, press the button and leave the familiar soap bubble behind to start anew. How different is it from your previous feed? Will it soon be filled with similar things again? Even so, stepping out of your comfort zone to explore a different place can be a refreshing experience.

## Pre-survey results

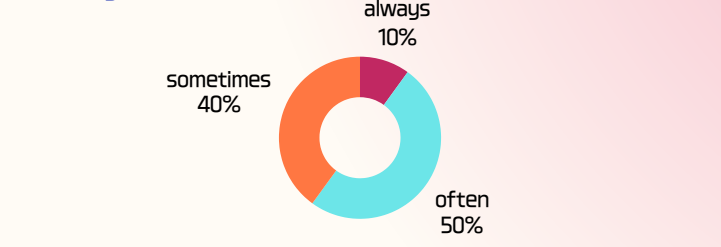
Q: How many hours do you spend watching YouTube in a day?



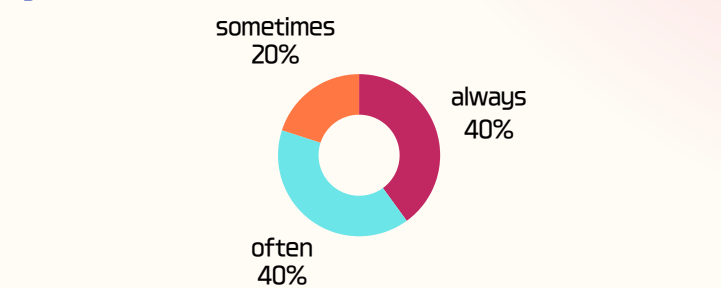
Q: YouTube provides content tailored to my preferences through its algorithm.



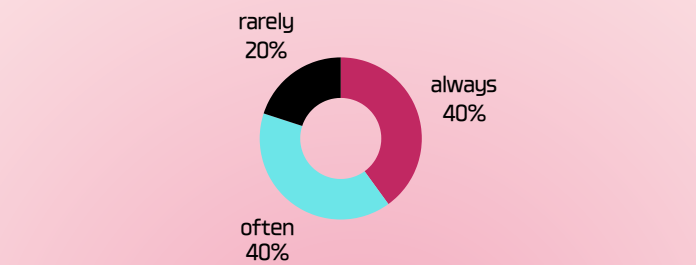
Q: When using YouTube, I tend to pick videos from the recommended content feed rather than entering search terms myself.



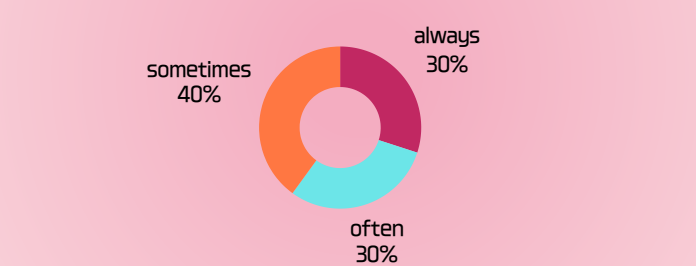
Q: The YouTube algorithm also provides content outside of my areas of interest.



Q: I believe the YouTube algorithm influences the entire process of selecting videos I watch.



Q: I usually get information about social issues through YouTube.

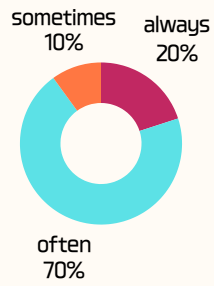


## Pre-survey results analysis

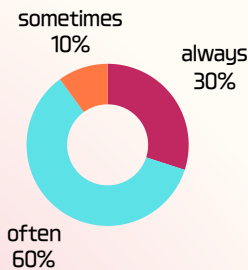
- High trust in the algorithm  
=> Builds confidence in personalized recommendations
- Usage centered on recommended feeds  
=> Passive consumption patterns, increased dependence on algorithms
- Awareness of algorithm influence
- YouTube as a source of information  
=> News and current affairs are often obtained via YouTube,
- which has a significant impact on public opinion formation

# Post-survey results

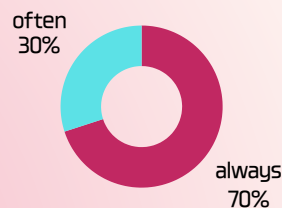
Q: The content in the YouTube recommendation feed has changed compared to before using the program.



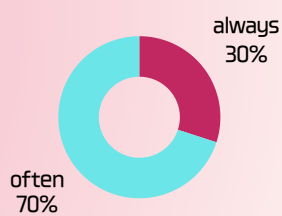
Q: The videos watched may differ when I enter a search term myself versus when I use YouTube's recommended feed.



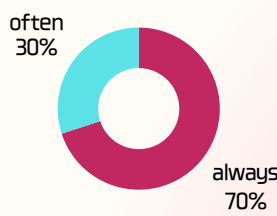
Q: The information I encounter can vary depending on which videos YouTube recommends.



Q: I feel that the content provided by YouTube is biased toward my existing interests.



Q: I feel the need to access content from a wider range of perspectives.



## conclusion & implications

### Conclusion

- People in their 20s and 30s trust algorithms and consume content passively.
- They lack critical review and grow more dependent.
- They notice clear changes in recommendations after experiments.
- They feel a difference between recommendations and direct searches.
- They realize algorithms directly affect their information and perceptions.

### Implications

- Algorithms aren't neutral; they filter based on preferences.
- Users should move from passive consumption to active searching.
- Digital literacy should include critical thinking about information.
- Small actions, like deleting watch history, can change information exposure.

- half of the 10 participants preferred using a separate account during the test to avoid erasing their main algorithmic feed.
- This suggests not just familiarity with personalized content, but a deep reliance on algorithm-driven consumption patterns.
- Deleting viewing history won't break the filter bubble—but it's a starting point for awareness. It serves as an initial step that helps users become aware of algorithmic influence and consciously take a step back.
- current algorithms are driven by multiple variables beyond viewing history, this experiment confirmed that deleting past records can still shift the direction of recommended content and affect short-term exposure.
- Even small actions can help users recognize and question algorithmic influence! This finding is meaningful in that it offers users an opportunity to recognize the power of algorithms and begin engaging with content more intentionally.

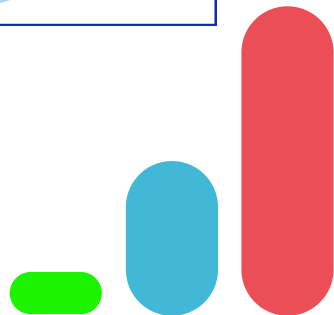
# Future Direction : Filter Bubble Fighter ver.2

What if the YouTube app we use every day provided us with a visual summary analyzing the videos we watch?

Instead of passively absorbing the endless flow of information and opinions without question, couldn't we regain control as active consumers of content?

This program categorizes the videos watched over a month by topic and offers visually organized charts, helping users understand the world they are viewing on their own.

## 2025 Algorithm Recap.



Based on an algorithm..  
Your political preference is...

## Expected Effects

Provide consumers with visual tools to assess their own usage patterns and viewing tendencies.



Restore user agency in the content consumption process.

This experiment was a preliminary experiment that focused on qualitative exploration rather than quantitative representation, and it was a significant early example in that most of the participants showed attitude changes as they felt changes in content recommendation and algorithm recognition. In the future, the sample can be expanded to continue follow-up research.

# THANK YOU!