



Chamber Breaker

Provide you with **fresh topics,**
diverse opinions on Reddit

BY RAN LIU. LINH HOANG. XI CHEN



Motivation.

User Preference [fresh]

Chamber of users' own opinion

- People seek information that reinforces their existing views
- People have limited amount of attention

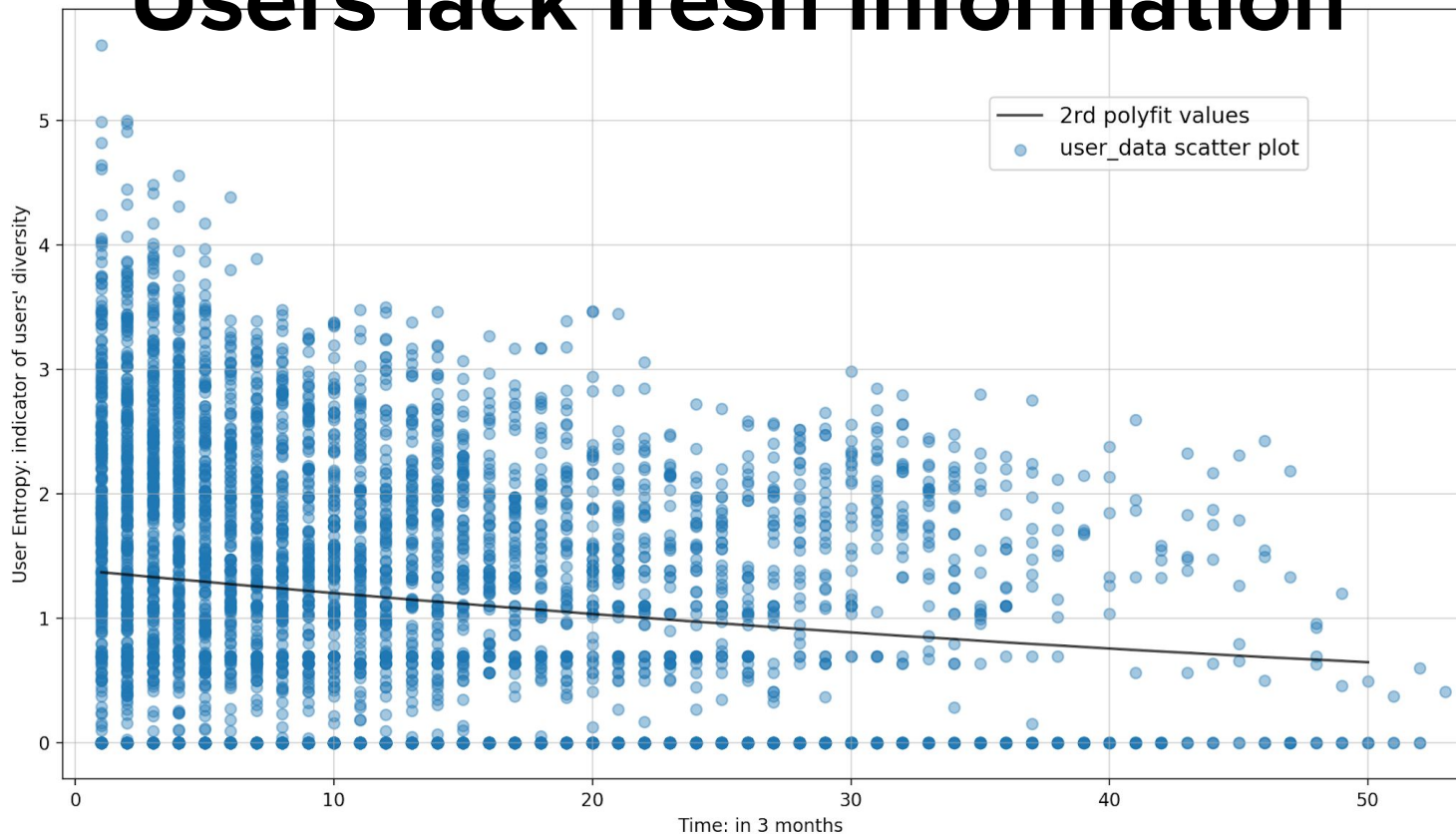
Platform Curation [diverse]

Chamber of majority people's opinion

- Post ranking is based on upvote and downvote
- Post ranking is based on subreddit rules

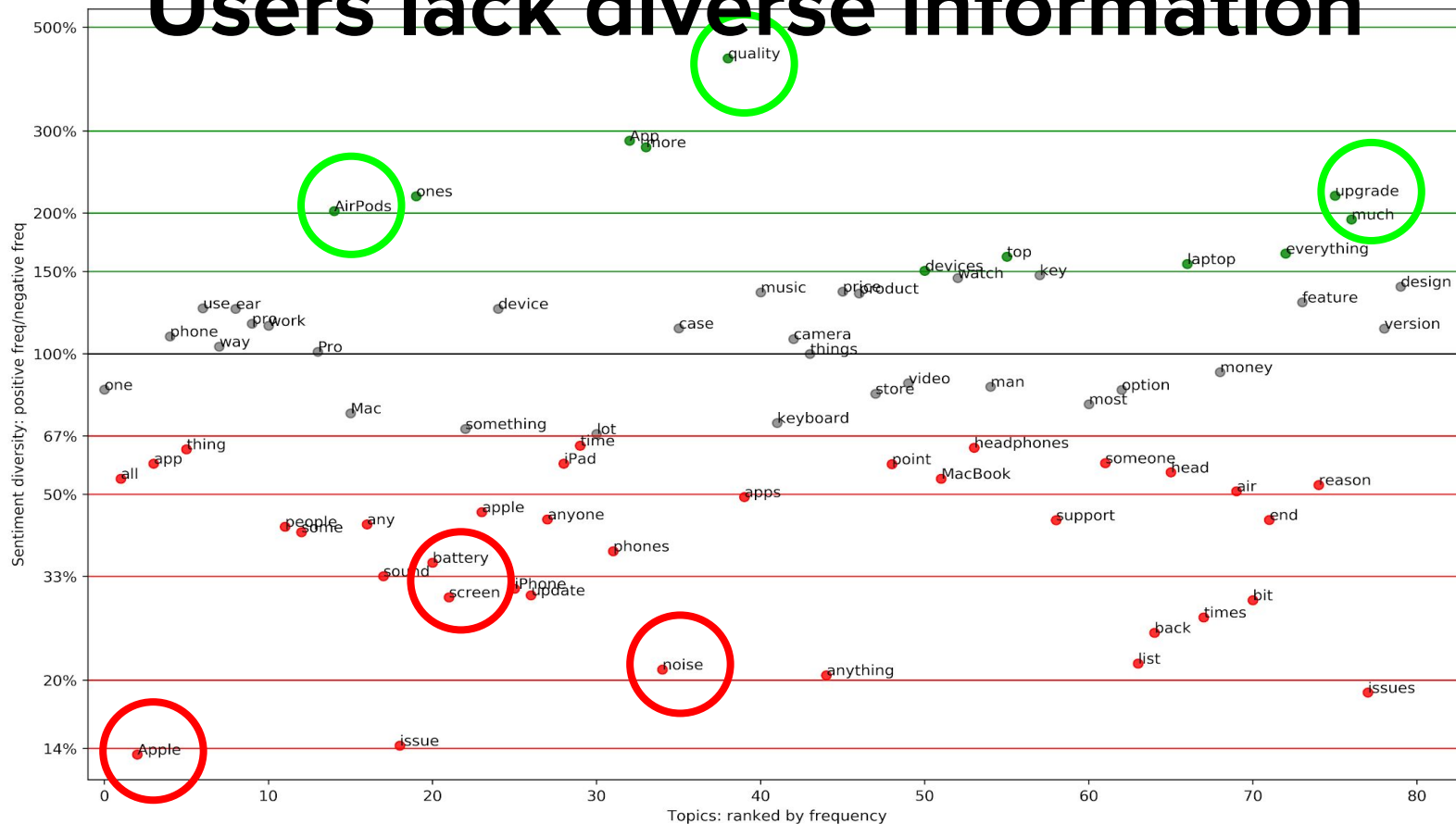


Users lack fresh information





Users lack diverse information





Goals.

Help users understand more
fresh & diverse information.

We want to provide

- *fresh topics*
- *fresh posts*
- *diverse topics*
- *diverse posts*



Methods.



Determine Objective



Data Crawling



Topic Model Implementation



Design & Testing



Interface Implementation



Determine Objective

Competitive Analysis
User Interview

Methods.



Methods.



Determine Objective



Data Crawling

- Post Dataset (processed):
 - /r/SelfDrivingCars: 210 high-quality posts from 1000 posts
 - /r/apple: 320 high-quality posts from 1000 posts
- User Dataset:
 - 360 users with average active user history around 2 years (longest: ~12 years)



Methods.



Determine Objective



Data Crawling



Topic Model Implementation

Example:

“The design is good but the service is horrible.”

“The **design** is good but the **service** is horrible.”

“The **design** is good but the **service** is horrible.”





Methods.



Determine Objective



Data Crawling



Topic Model Implementation



Design & Testing

Brainstorming
Concept design
Task based comparable user testing
Design iteration



Methods.



Determine Objective



Data Crawling



Topic Model Implementation



Design & Testing



Interface Implementation



Design Outcome.

Get something fresh

Break the chamber of users' own opinion


Get diverse opinions

Break the chamber of majority people's opinion



1

Get something fresh




SelfDrivingCars

51.6k
Members

302
Posts

Top Topics

Topics in this SubReddit based on frequency



Topics Fresh to You

Topics that you didn't involve a lot before based on your posts, comments

- Ethics
- Model X
- Deep Learning
- Automakers
- Electric Vehicles


SORT 🔥 HOT ▼

↑
120
↓

Posted by u/walky22talky 10 days ago

Tesla on Autopilot senses three bears on highway

I'm sure more validation would be needed, but according to Fraunhofer's research and validation, as least shock and vibration wise, MEMS LIDAR can be considered as solid-state.





1

Get something fresh





1

Get something fresh

↑
80
↓

Posted by u/walky22talky 10 days ago

Airless tire makers hope for breakout moment with autonomous driving

I'm sure more validation would be needed, but according to Fraunhofer's research and validation, as least shock and vibration wise, MEMS LIDAR can be considered as solid-state.

4 Comments Give Award Share Save ...

↑
0
↓

Posted by u/reimmoriks 1 month ago · Fresh to you

IMPORTANT!! We're doing a research on AI *ETHICS* IN SELF DRIVING CARS. Please fill this survey form! PLEASE!

bimileap.com/survey...

3 Comments Give Award Share Save ...

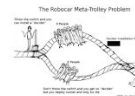
↑
187
↓

Posted by u/bradtem 8 months ago

***Ethics* professors solve the "Trolley Problem" by debating whether to kill one or five. Engineers solve it by fixing the brakes on the Trolley.**

forbes.com/sites/...

145 Comments Give Award Share Save ...



↑
39
↓

Posted by u/irvdrive 2 years ago

Robot Cars And Fake *Ethical* Dilemmas. Is the Trolley Problem a hyperbole and a distraction?

I like how the author shows that this hyperbolic trolley problem talk is overshadowing the real, far more subtle and interesting ethical issues posed by SDCs.

31 Comments Give Award Share Save ...





1

Get something fresh

↑
80
↓

Posted by u/walky22talky 10 days ago

Airless tire makers hope for breakout moment with autonomous driving

I'm sure more validation would be needed, but according to Fraunhofer's research and validation, as least shock and vibration wise, MEMS LIDAR can be considered as solid-state.

4 Comments Give Award Share Save ...

↑
0
↓

Posted by u/reimmoriks 1 month ago Fresh to you

IMPORTANT!! We're doing a research on AI ETHICS IN SELF DRIVING CARS. Please fill this survey form! PLEASE!

bimileap.com/survey...

3 Comments Give Award Share Save ...

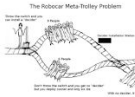
↑
187
↓

Posted by u/bradtem 8 months ago

Ethics professors solve the "Trolley Problem" by debating whether to kill one or five. Engineers solve it by fixing the brakes on the Trolley.

forbes.com/sites/...

145 Comments Give Award Share Save ...




↑
39
↓

Posted by u/irvdrive 2 years ago

Robot Cars And Fake Ethical Dilemmas. Is the Trolley Problem a hyperbole and a distraction?

I like how the author shows that this hyperbolic trolley problem talk is overshadowing the real, far more subtle and interesting ethical issues posed by SDCs.

31 Comments Give Award Share Save ...





1

Get something fresh

80

Posted by u/waikyzztalky 10 days ago

Airless tire makers hope for breakout moment with autonomous driving

I'm sure more validation would be needed, but according to Fraunhofer's research and validation, as least shock and vibration wise, MEMS LIDAR can be considered as solid-state.

4 Comments Give Award Share Save ...

0

Posted by u/reimmoriks 1 month ago Fresh to you

IMPORTANT!! We're doing a survey form! PLEASE!

bimileap.com/survey...

This post contains some fresh topics to you

#Auto-Parking #Nova

3 Comments Give Award Share Save ...

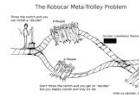
187

Posted by u/bradtem 8 months ago

Ethics professors solve the "Trolley Problem" by debating whether to kill one or five. Engineers solve it by fixing the brakes on the Trolley.

forbes.com/sites/...

145 Comments Give Award Share Save ...




39

Posted by u/irvdrive 2 years ago

Robot Cars And Fake Ethical Dilemmas. Is the Trolley Problem a hyperbole and a distraction?

I like how the author shows that this hyperbolic trolley problem talk is overshadowing the real, far more subtle and interesting ethical issues posed by SDCs.

31 Comments Give Award Share Save ...





2 Get diverse opinions

51.6k
Members

302
Posts

Top Topics
Topics in this SubReddit based on frequency

Topics Fresh to You
Topics that you didn't involve a lot before based on your posts, comments

Ethics

Model X

Deep Learning

Automakers

Electric Vehicles

Top different opinions
Generated based on the upvote and downvote of the post

↑
120
↓

Posted by u/walky22talky 10 days ago

Airless tire makers hope for breakout moment with autonomous driving

Agreed

↑
16
↓

Posted by u/linh 20 days ago

Tesla Full Self-Driving in early access this year, without supervision next year

Controversial

↑
-45
↓

Posted by u/Shelly 1 month ago

Trolley problem is useless

Disagreed

↑
120
↓

Posted by u/walky22talky 10 days ago

Tesla on Autopilot senses three bears on highway

The user says validation would be needed, but according to French safety research and validation, at least about and



2 Get diverse opinions

51.6k
Members

302
Posts

Top Topics
Topics in this SubReddit based on frequency

Topics Fresh to You
Topics that you didn't involve a lot before based on your posts, comments

Ethics

Model X

Deep Learning

Automakers

Electric Vehicles

Top different opinions
Generated based on the upvote and downvote of the post

↑
120
↓

Posted by u/walky22talky 10 days ago

Airless tire makers hope for breakout moment with autonomous driving

Agreed

↑
16
↓

Posted by u/linh 20 days ago

Tesla Full Self-Driving in early access this year, without supervision next year

Controversial

↑
-45
↓

Posted by u/Shelly 1 month ago

Trolley problem is useless

Disagreed

↑
120
↓

Posted by u/walky22talky 10 days ago

Tesla on Autopilot senses three bears on highway

The user's original validation would be needed, but according to Google's full research and validation, at least about and



Get diverse opinions



Topics in this SubReddit based on frequency

51.6k

Members

302

Posts



Topics that you didn't involve a lot before
based on your posts, comments

Ethics

Model X

Deep Learning

Automakers

Electric Vehicles

SORT  HOT ▼



Generated based on the upvote and downvote of the post

↑ Posted by u/Eve 10 days ago

2

Toyota boss says autonomous cars will accept crash liability



↑ Posted by u/linh 1 hour ago

C

Nova PBS episode on self-driving cars including a look at Waymo's private "Castle" test track



↑ Posted by u/PlusItVibrate 1 month ago

2

Steve Wozniak does not expect self driving cars in his lifetime.



120

Posted by u/walky22talky 10 days ago

Tesla on Autopilot senses three bears on highway

I'm sure more validation would be needed, but according to Fraunhofer's research and validation, as least shock and vibration wise, MEMS LiDAR can be considered as solid-state.




2 Get diverse opinions

51.6k
Members

302
Posts

Top Topics

Topics in this SubReddit based on frequency



Topics Fresh to You

Topics that you didn't involve a lot before based on your posts, comments

- Ethics
- Model X
- Deep Learning
- Automakers
- Electric Vehicles


SORT **SECURITY**

Different opinions of 'security'

Posts are generated based on the sentiment towards the topic.

Posted by u/walky22talky 10 days ago


Airless tire makers hope for breakout moment with autonomous driving



Agreed

Posted by u/linh 20 days ago


Tesla Full Self-Driving in early access this year, without supervision next year



Controversial

Posted by u/Shelly 1 month ago

Trolley problem is useless




Disagreed

Posted by u/walky22talky 6 months ago

Cruise: How to Prioritize Self-Driving Car Security

I know this was an article linking to a whitepaper, but it felt thin. Limited, outbound connections are the assumption.





Prototype Showcase.



What we've learned.

Entity sentiment analysis is difficult and still has limitations

Make sure the problem / objective is what we need to solve instead of what we want to solve



Future work.

Better targeted sentiment analysis model.

Fresh subreddits recommendation.

Extend our idea to other social media platforms.



Thank you!
Any Questions?

BY RAN LIU. LINH HOANG. XI CHEN