

Towards Usable Transparency Interfaces to Understand Facebook Data Collection from 3rd Parties

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1. Data collection and aggregation happens at scale: How do users react to it?

Problem User activity across multiple sites and apps, even in physical shops, is collected and aggregated.
Risks: leaks, misuses, abuses, etc.
→ Transparency can help!

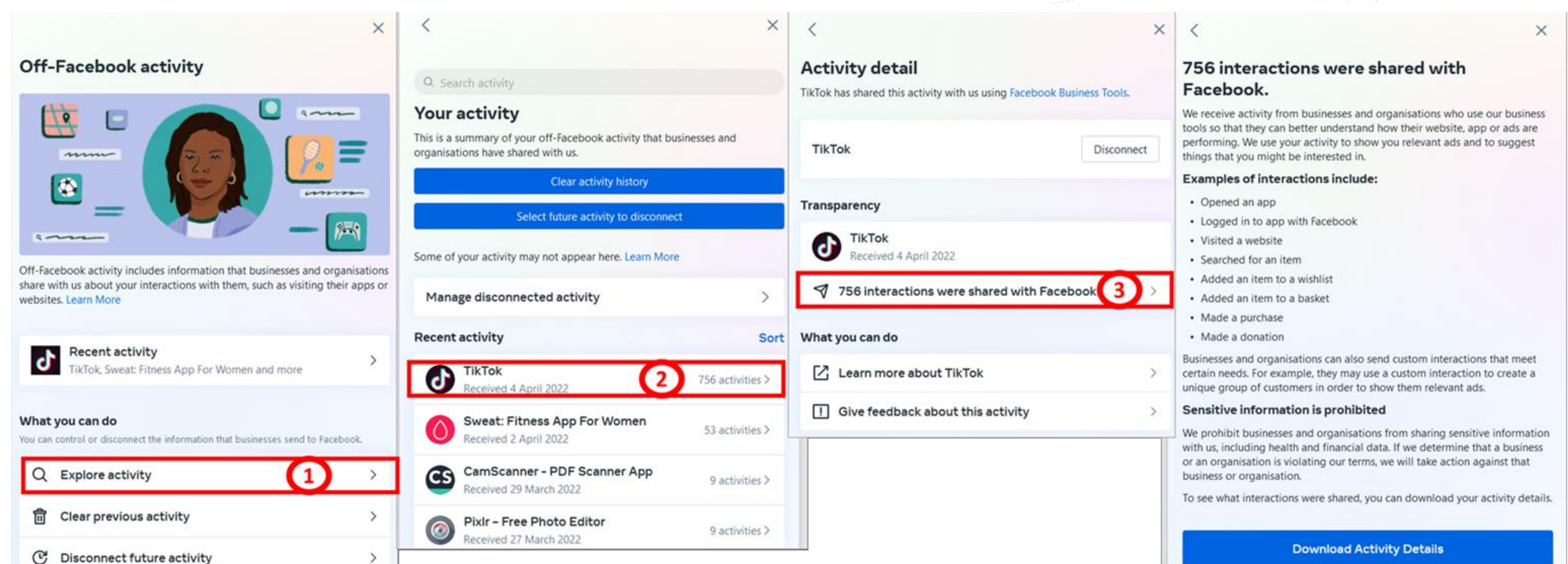
Research Questions

How does the “Off-Facebook Activity” tool affect users’ **privacy attitudes**?

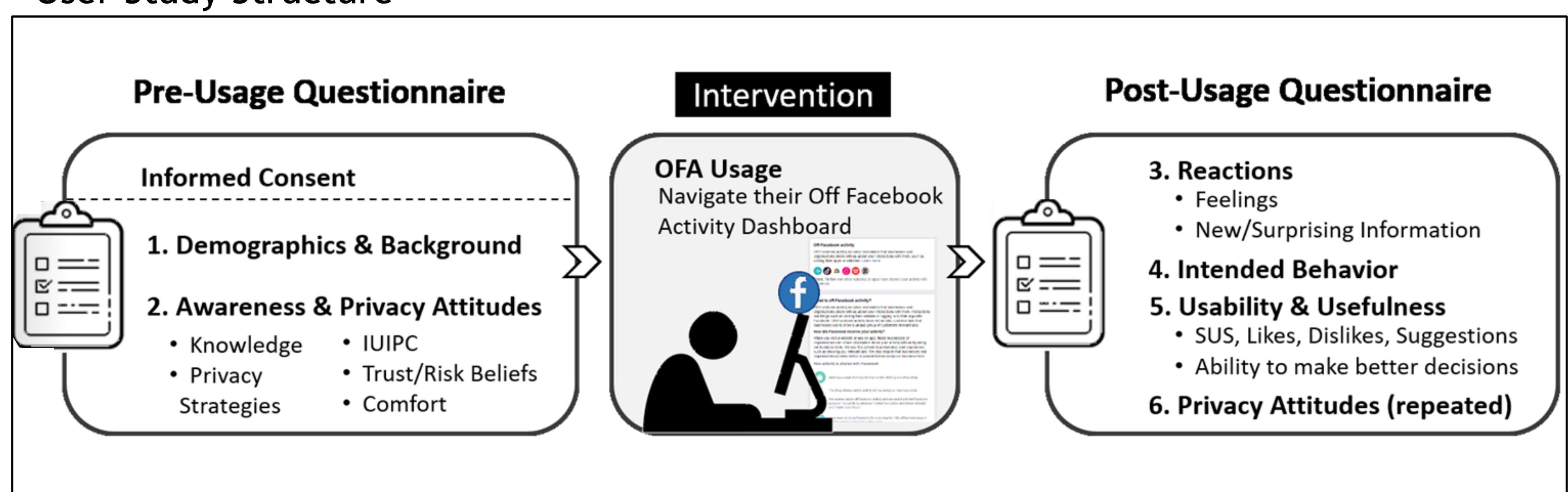
What are users’ **reactions and intended behavioral changes** after exposure?

How **usable** is the “Off-Facebook Activity” dashboard as a transparency enhancing tool?

“Off-Facebook Activity” Transparency Tool



User Study Structure



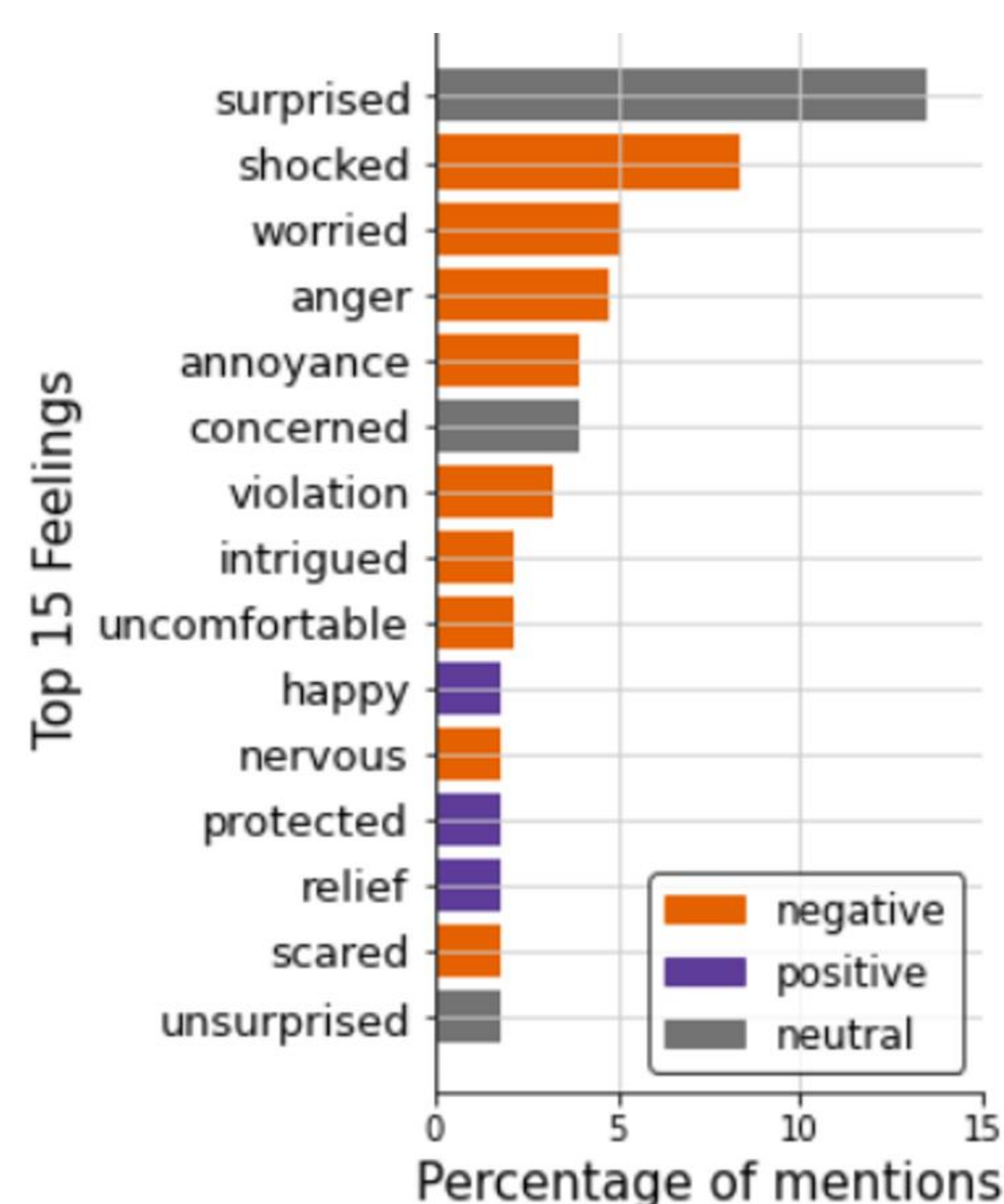
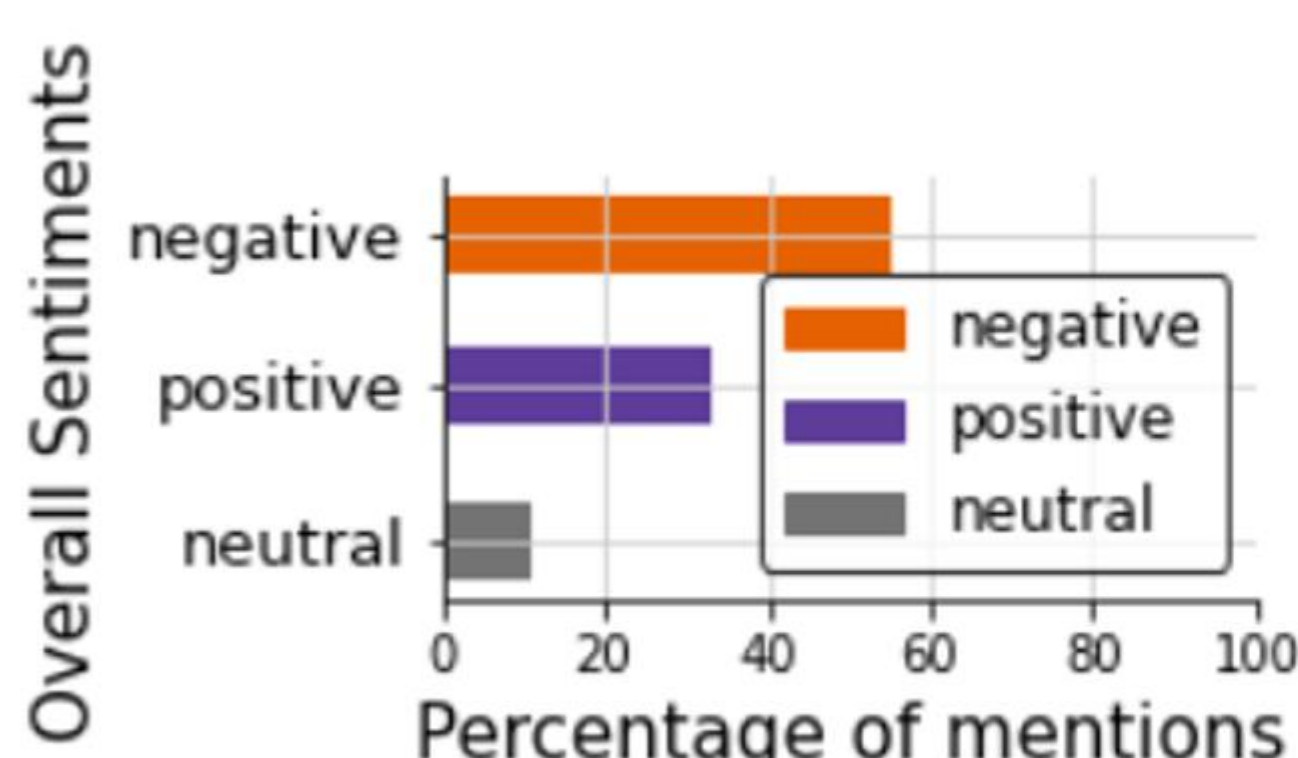
Methodology

- Intervention study
- N=100 participants
- Recruitment through MTurk

Study Sample (n = 100)		
Gender	Female	38 %
	Male	61 %
	No Answer	1 %
Age	13-17	—
	18-24	29 %
	25-34	43 %
	35-44	16 %
	45-54	8 %
	55-64	2 %
	>= 65	1 %
	No Answer	1 %

2. Results: User Reactions to Facebook Data Collection

Please list three feelings you have after using the "Off-Facebook Activity" tool.



3. Results: Impact on Privacy Attitudes

If I don't explicitly realise or remember that I'm giving my permission to a company to share my business with them, I should be able expect confidentiality in the same way I would from a public service such as a Library or Doctors Surgery. (P12)

"I won't take any other action because I don't know how to, I feel hopeless" (P67)

"Over 500 listed, I am in shock, how do I remove all of these without having to go through one by one?!" (P76)

"I genuinely had no idea that so many websites and apps fed information back (sold my information?) to FB. For instance, one of my banks that I use an app for has a marketing app that sends info to FB. I mean really... FFS. If I can trust anyone, it should be my bank" (P175)

4. Results: Usability

TRANSPARENCY Level of detail of the information is vague

CONTROL Limited actionable means to exercise privacy rights

INTERFACE Meaningful visualizations needed, data exports are hard to interpret

Participants:

- Were shocked about amount of collected information
- felt significantly less comfortable with data collection
- want to protect themselves but feel unable

Current consent notices don't work well!!

5. Reference

Patricia Arias-Cabarcos, Saina Khalili, and Thorsten Strufe. 2023. 'Surprised, Shocked, Worried': User Reactions to Facebook Data Collection from Third Parties. In Privacy Enhancing Technologies Symposium, PETS 2023 (to appear).



Activity received from TikTok	
ID	597615686992125
Event	CUSTOM
Received on	4 April 2022 at 07:31
ID	597615686992125
Event	CUSTOM
Received on	3 April 2022 at 14:28

```

2  "off_facebook_activity_v2": [
3  {
4    "name": "TikTok",
5    "events": [
6      {
7        "id": "597615686992125",
8        "type": "CUSTOM",
9        "timestamp": "1649050260"
10     },
11     {
12       "id": "597615686992125",
13       "type": "CUSTOM",
14       "timestamp": "1648988880"
15     }
16   ]
17 }

```