What kind of interface that will encourage people to consider other versions of information on social media- to help identify false or biased news.

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Abstract

With the development of social media, the echo chamber effect has also begun to be noticed. Users are easily misled by the false information disseminated in echo chambers, which can cause negative social impacts.

This study hopes to improve users' media literacy through the design of the interface. And help users to get the key information faster, so as to help users to better distinguish the false information. Thus reducing the harm of the echo chamber effect on the society.

Introduction & Background

In the age of artificial intelligence, social media algorithms make recommendations based on user data, creating "filter bubbles". Users may also experience an "echo chamber effect" due to confirmation bias under the algorithm. At the same time, it is difficult for users to quickly judge the authenticity of new and specialised information. It takes a lot of time for users to find relevant information, which reduces their willingness to look for it. This accelerates the spread of false information, which has a negative impact on users and society.

Design
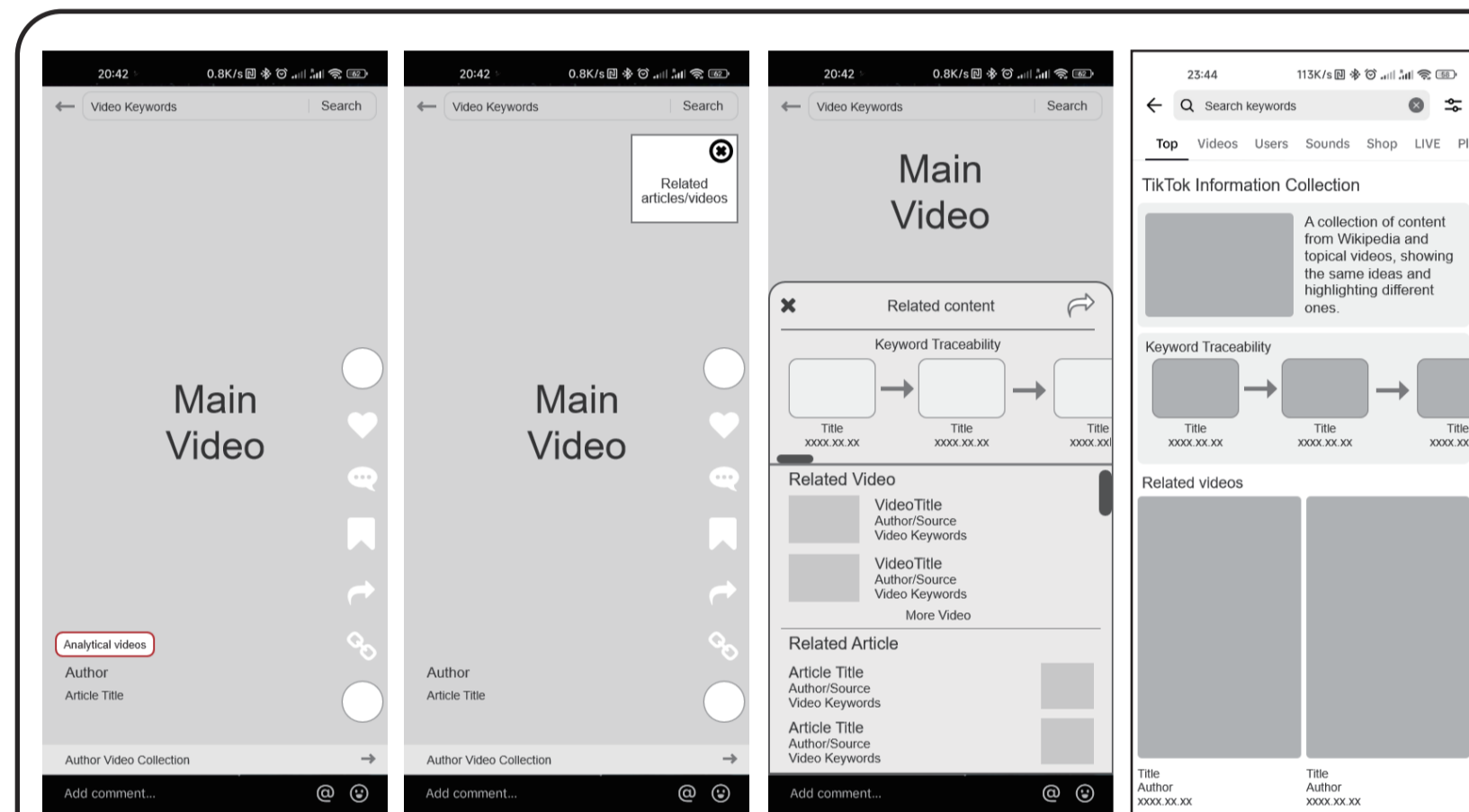
Video content tagging: Classify videos through AI or manually. Distinguish between objective and subjective videos and mark the credibility of the video by tag colour.

Related pop-up window: After the user has viewed the video for 10 seconds, more relevant content will be shown through a pop-up window.

Related link button: Users can click on buttons for a timeline of information as well as view related videos and articles.

The search interface: Generate an event entry for the event, and users can click on the entry to get the difference between the information from different sources.

Study Methodology& Testing

The study is conducted by observing the usage process of users browsing TikTok. And according to the user's habits of use interface optimisation, the design of the interface to meet the user's habits, so as to increase the user's click rate on the relevant information, motivate the user to understand more comprehensive information.

Studying user habits

In my first observation, I found that users mainly viewed videos by checking synopsis, comments and searching for related content. In the later interview, I learnt that users prefer to get information quickly. They can listen to the video content while getting related information. Users used the search interface only if they were very interested in the current video content or if they were not sure about a specialised term. They thought that the information in the search interface was too similar and it was difficult to get more information.

User Ratings and Interviews

Test (Out of 5)	User1	User2	User3	User4	User5
Video content tagging	2	1	2	2	1
Related pop-up window	5	3	4	3	4
Related link button	5	3	4	4	5
The search interface	4	2	3	3	3

In this interview, users did not pay attention to the change in the video content label. They thought that the label could be discriminated by the video. And there is a learning cost for the video trustworthiness label. And the related pop-up window users think it can be clicked quickly, but there may be a situation of blocking important images. Related link button users think they can view the information while playing the video, and the information content is clear and unambiguous. The search interface keyword article users may not have the patience to read through.

User eye movement data analysis
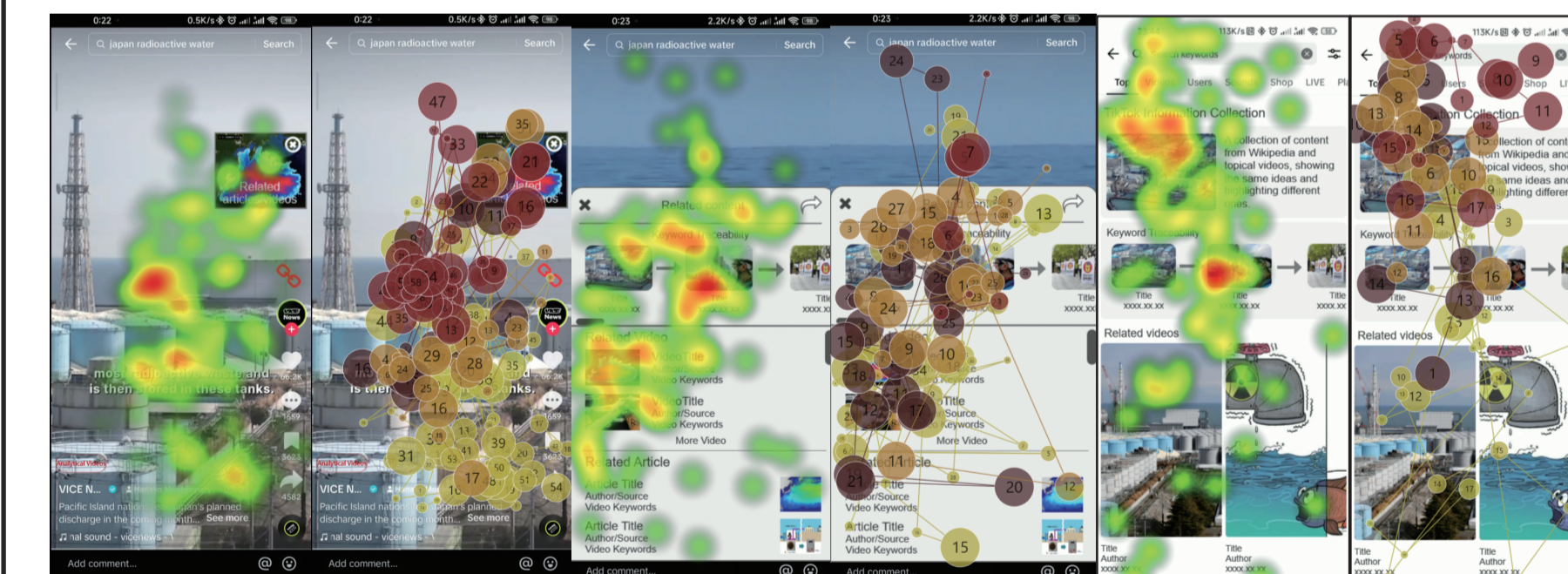
When users are browsing videos, the interface pops up relevant information through pop-up windows, and users can usually notice and read the pop-up information. It is proved that pop-up windows can effectively attract users' attention. When users browse the related links interface, they mainly browse the event timeline, so as to quickly understand the whole picture of the information. When users browse the search interface, they pay more attention to the content of the words. All of these can help users to get more information content, so as to recognize false information.

Research Results

This study validates the previously observed browsing habits of users, who prefer to access information related to the video content without interrupting the video. By optimising the interface and creating buttons or pop-ups that are easy for users to click on, it is possible to increase the willingness of users to click on relevant information while browsing. This optimisation of the interface can help users to access relevant information faster, and can also be used as a reminder to develop media literacy. This can help users better identify false information and reduce the harm caused by the dissemination of false information to the society.

Conclusions& Future Work

I think the optimisation of the interface can better guide the user to click, and can help the user to understand the context of the event more quickly, so as to identify false information. The main demographic of social media users are young people, who are inherently curious and sceptical about information. This design can remind and help them to better recognise false information. However, it may be difficult to guide the people who do not doubt the truth of the information. Therefore, in the follow-up study, I should expand the population for research and think about more interfaces and guidance methods.