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Online News Reading– Personalized news recommendation

Group 14

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Background and Problem

- **Online news reading has become very popular as the web provides access to news articles from millions of sources around the world. If the News Website is able to catch people’s attention within a shorter time, it can attract more people.**

- **Only using one method(information filtering or collaborative filtering) has many drawbacks**

- **TARGET: Propose a mechanism to generate more personalized and real time news recommendations**

Idea

- An analysis on the change of users interests in news topics over time
- Personalized framework=genuine interest + local news trend
- An experiment with the method

Methodology

- **Predicting User's Genuine News Interest**
  Information filtering (past click)

- **Predicting User's Current News Interest**
  Collaborative filtering (combine with genuine interest)

Preliminary result

- **Improved the quality of news recommendations (by 30.9%)**

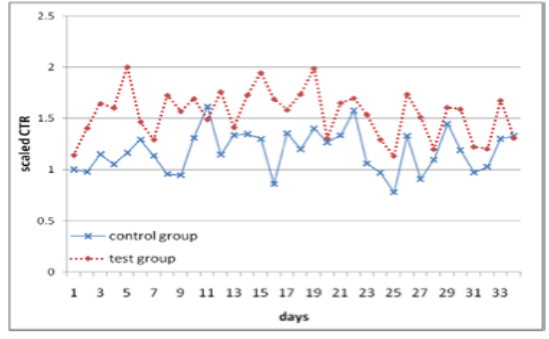

Figure 4. CTR of the recommended news section

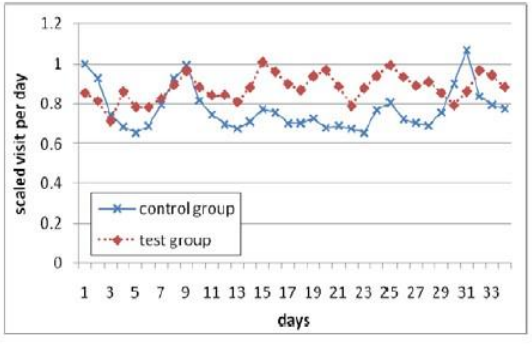

Figure 6. Frequency of website visit per day

- **Attracted more frequent visits to the Google News website.**

- **The total amount of attention that users are willing to pay per visit seems to be constant**

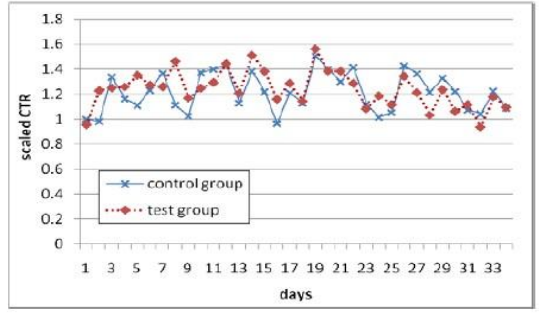

Figure 5. CTR of the Google News homepage

Q & A

References

[1] Liu, Jiahui, Peter Dolan, and Elin Rønby Pedersen. "Personalized news recommendation based on click behavior." Proceedings of the 15th international conference on Intelligent user interfaces. ACM, 2010.

[2] Billsus, Daniel, and Michael J. Pazzani. "A hybrid user model for news story classification." COURSES AND LECTURES-INTERNATIONAL CENTRE FOR MECHANICAL SCIENCES (1999): 99-108.