# **User Modeling in Exploratory Search**

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# **ABSTRACT**

This is abstract.

### **Author Keywords**

Exploratory Search; Information Retrieval; User Modeling.

# **ACM Classification Keywords**

H.5.m. Information Interfaces and Presentation (e.g. HCI): Miscellaneous

### **General Terms**

Human Factors; Design; Measurement.

# INTRODUCTION

This is the introduction.

### **USER MODELING**

Shortish explanation of user modeling key concepts. [14], [5]

### Sterotypes

Modeling stereotypes. [3], [13]

# How to Collect and Analyze User Information

[12], [17]

# Personalization

Individualization of user models, Adaptive/Adaptable User Interfaces, intelligent user interfaces [2], [4], [1]

# EXPLORATORY SEARCH IS A SUBTOPIC OF INFORMATION RETRIEVAL

### Information retrieval

There are many goals in information retrieval and exploratory search is one of them. [6], [7]

# **Exploratory Search**

Introduction to exploratory search. [10], [20], [16]

# **USER MODELING IN EXPLORATORY SEARCH**

How has user modeling been used in supporting exploratory search, example cases? What challenges have emerged? [11], [15], [18], [8]

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### **Evaluation of Exploratory Search Systems**

What are the challenges in evaluating Exploratory Search Systems? [19], [9]

# CONCLUSION

Here are the conclusions.

### WHO ADDED WHAT REFERENCES?

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### Reference count

Author	Tuire	Ilkka
References added	10	10

### **REFERENCES**

- 1. Brusilovsky, P. Methods and techniques of adaptive hypermedia. *User Modelling and User-Adapted Interaction* 6, 2-3 (1996), 87–129.
- 2. Bunt, A., Conati, C., and McGrenere, J. What role can adaptive support play in an adaptable system? In *Proceedings of the 9th international conference on Intelligent user interfaces*, ACM (2004), 117–124.
- 3. Dillon, A., and Watson, C. User analysis in hci the historical lessons from individual differences research. *International Journal of Human-Computer Studies 45*, 6 (12 1996), 619–637.
- 4. Findlater, L., and McGrenere, J. A comparison of static, adaptive, and adaptable menus. In *Proceedings of the SIGCHI conference on Human factors in computing systems*, ACM (2004), 89–96.

- 5. Fischer, G. User modeling in human–computer interaction. *User modeling and user-adapted interaction* 11, 1-2 (2001), 65–86.
- 6. Hearst, M., Elliott, A., English, J., Sinha, R., Swearingen, K., and Yee, K.-P. Finding the flow in website search. *Communications of the ACM 45*, 9 (2002), 42–49.
- 7. Kuhlthau, C. C. Inside the search process: Information seeking from the user's perspective. *JASIS* 42, 5 (1991), 361–371.
- 8. Kules, B., Capra, R., Banta, M., and Sierra, T. What do exploratory searchers look at in a faceted search interface? In *Proceedings of the ACM/IEEE Joint Conference on Digital Libraries* (2009), 313–322.
- 9. Kules, B., and Shneiderman, B. Users can change their web search tactics: Design guidelines for categorized overviews. *Information Processing and Management 44*, 2 (2008), 463–484.
- 10. Marchionini, G. Exploratory search: From finding to understanding. vol. 49 (2006), 41–46.
- 11. O'Connor, B., Krieger, M., and Ahn, D. Tweetmotif: Exploratory search and topic summarization for twitter. *Proceedings of ICWSM* (2010), 2–3.
- 12. Pazzani, M., and Billsus, D. Learning and revising user profiles: The identification of interesting web sites. *Machine Learning* 27, 3 (1997), 313–331.
- 13. Pu, H. ., Chuang, S. ., and Yang, C. Subject categorization of query terms for exploring web users' search interests. *Journal of the American Society for Information Science and Technology 53*, 8 (2002), 617–630.
- 14. Rich, E. Users are individuals: individualizing user models. *International Journal of Human-Computer Studies* 51, 2 (8 1999), 323–338.
- 15. Sugiyama, K., Hatano, K., and Yoshikawa, M. Adaptive web search based on user profile constructed without any effort from users (2004). 675–684.
- 16. Tvarožek, M. Exploratory search in the adaptive social semantic web. *Information Sciences and Technologies Bulletin of the ACM Slovakia 3*, 1 (2011), 42–51.
- 17. White, R. W., Bennett, P. N., and Dumais, S. T. Predicting short-term interests using activity-based search context. In *Proceedings of the 19th ACM international conference on Information and knowledge management*, ACM (2010), 1009–1018.
- 18. White, R. W., Drucker, S. M., Marchionini, G., Hearst, M., and Schraefel, M. C. Exploratory search and hci: Designing and evaluating interfaces to support exploratory search interaction. In *Conference on Human Factors in Computing Systems Proceedings* (2007), 2877–2880. Cited By (since 1996): 3.

- 19. White, R. W., Marchionini, G., and Muresan, G. Evaluating exploratory search systems. introduction to special topic issue of information processing and management. *Information Processing and Management* 44, 2 (2008), 433–436.
- 20. White, R. W., and Roth, R. A. Exploratory search: Beyond the query-response paradigm. *Synthesis Lectures on Information Concepts, Retrieval, and Services 1*, 1 (2009), 1–98.