

Ryen W. White, Ph.D.

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Biography

Ryen White is General Manager and Deputy Lab Director of Microsoft Research (MSR) in Redmond. He leads the LEAP (Language, Learning, Audio, Privacy) research area (six research groups), the Data Science team, the Central Engineering organization, and the Research Technology Engineering organization, with 150 team members in total. Ryen's teams advance the state of the art in Artificial Intelligence (AI), Human-Computer Interaction, and Systems, and deliver real world impact at scale through collaborations with product teams. His research takes a user- and task-centric view on AI, with a focus on search and assistance. In recent roles, Ryen led the applied science organization for the Microsoft Cortana digital assistant, and he was chief scientist for Microsoft Health, establishing a science culture and infusing AI in both products. Technology derived from his and his team's research has shipped and significantly improved key business metrics in many Microsoft products, including Bing (e.g., using context to improve search relevance for well over half of all Bing traffic), Xbox, Internet Explorer, Skype, Dynamics, Health, Windows, Cortana, and Office (Outlook, Teams, Planner, To Do, Word), and Azure. Ryen is a Fellow of the ACM and of the British Computer Society. He is an Affiliate Professor at the University of Washington. Ryen has published over 300 articles on search and related areas, including significant work on mining and modeling search activity at scale. He was named "Center of the SIGIR Universe" (most central author in the co-authorship graph) in the 40 years of ACM SIGIR, the top search conference. Ryen has received over 20 awards for his technical contributions, including three SIGIR Best Paper awards and two SIGIR Test of Time awards. His PhD work received the British Computer Society's Distinguished Dissertation Award for the best Computer Science Ph.D. dissertation in the UK. Ryen has received the Karen Spärck Jones Award (2014) and the Tony Kent Strix Award (2022) for outstanding contributions to search. He is a member of the SIGIR Academy. One of Ryen's books, "Interactions with Search Systems," received the ASIS&T Best Information Science Book Award (2017). He was program chair for The Web Conference 2019 and SIGIR 2017. Ryen is EiC of ACM Transactions of the Web and SIGIR Vice Chair.

Professional Experience

General Manager and Deputy Lab Director Microsoft Research, Redmond, USA	2022 – present
Affiliate Full Professor iSchool and School of Computer Science & Engineering, University of Washington, Seattle, USA	2021 – present
Partner Research Director Microsoft Research, Redmond, USA	2020 – 2022
Partner Research Manager Microsoft Research, Redmond, USA	2018 – 2020
Director of Applied Science Microsoft Cortana, Bellevue, USA	2017 – 2018
Chief Scientist Microsoft Health, Redmond, USA	2015 – 2017
Sr Principal Researcher Microsoft Research, Redmond, USA	2006 – 2017
Research Scientist Institute for Advanced Computer Studies, University of Maryland, College Park, USA	2004 – 2006

Education

Ph.D.	Computer Science, University of Glasgow, UK Advisors: Joemon M. Jose, Ian Ruthven, C.J. van Rijsbergen Dissertation: "Implicit Feedback for Interactive Information Retrieval" Winner of the British Computer Society Distinguished Dissertation Award	Defended 2004 Graduated 2005
B.Sc. (Hons)	Computer Science and Management Studies, University of Glasgow, UK	2001

Honors and Awards

- **Test of Time Award**
For "Beliefs and Biases in Web Search" [Sole Author] [Also received Best Paper Award in 2013]
ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2023)
- **ACM SIGIR Academy (Class of 2023)**
For "*significant, cumulative contributions to the development of the field of information retrieval.*"
- **Tony Kent Strix Award 2022**
For "*prolific and significant contributions to information retrieval research and development on multiple fronts, most notably the search experience.*"
- **Test of Time Award**
For "Modeling the Impact of Short-and Long-term Behavior on Search Personalization"
ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2022)
- **ACM Fellow (Class of 2021)**
For "*contributions to information retrieval, human-computer interaction, and computational health.*"
- **ASIS&T Best Information Science Book Award 2017**
For "Interactions with Search Systems" [Sole Author]
Awarded to the outstanding book in information science published during the preceding calendar year.
- **Best Student Paper Award**
For "Analyzing and Predicting Task Reminders"
ACM UMAP Conference on User Modeling Adaptation and Personalization (UMAP 2016)
- **Best Student Paper Award**
For "Struggling and Success in Web Search"
ACM CIKM Conference on Information and Knowledge Management (CIKM 2015)
- **Microsoft BCS/BCS IRSG Karen Spärck Jones Award 2014**
For contributions to information retrieval, specifically "*to a better understanding of search interaction, e.g., through novel and creative analyses of vital and as of yet unexplored aspects of searcher behavior, closely coupled with the development of models and applications for improving the search experience.*"
- **Best Paper Award**
For "Cross-Device Search"
ACM CIKM Conference on Information and Knowledge Management (CIKM 2014)
- **Best Paper Award**
For "Beliefs and Biases in Web Search" [Sole Author]
ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2013)
- **Best Paper Award**
For "Effects of Community Size and Contact Rate in Synchronous Social Q&A" [First Author]
ACM SIGCHI Conference on Human Factors in Computing Systems (SIGCHI 2011)
- **Best Paper Award**
For "Assessing the Scenic Route: Measuring the Value of Search Trails in Web Logs" [First Author]
ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2010)

- **Best Paper Award**
For “Evaluating Advanced Search Interfaces Using Established Information-Seeking Models”
Journal of the American Society for Information Science and Technology (JASIST 2010)
- **Best Paper Award**
For “Studying the Use of Popular Destinations to Enhance Web Search Interaction” [First Author]
ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2007)
- **BCS/CPHC Distinguished Dissertation Award 2005**
For “Implicit Feedback for Interactive Information Retrieval”
Awarded to the best Computer Science Ph.D. dissertation in the United Kingdom for 2004/2005.
- **Best Student Paper Award**
For “A Simulated Study of Implicit Feedback Models” [First Author]
European Conference on Information Retrieval (ECIR 2004)
- **Best Paper Award**
For “A Granular Approach to Web Search Result Presentation” [First Author]
IFIP TC13 International Conference on Human-Computer Interaction (INTERACT 2003)
- **UNISYS Executive of Interest Project Prize**
Best Undergraduate Computing Science Thesis, University of Glasgow (2000/2001)

Honorable Mentions and Best Paper Finalists

- **Honorable Mention Award**
For “Formation of Social Ties Predicts Food Choice: A Campus-wide Longitudinal Study”
ACM CSCW Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2021)
- **Honorable Mention Award**
For “VERSE: Bridging Screen Readers and Voice Assistants for Enhanced Eyes-Free Web Search”
ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2019)
- **Honorable Mention Award**
For “Exploring Time-Dependent Concerns about Pregnancy and Childbirth from Search Logs”
ACM SIGCHI Conference on Human Factors in Computing Systems (SIGCHI 2015)
- **Honorable Mention Award**
For “No Clicks, No Problem: Using Cursor Movements to Understand and Improve Search”
ACM SIGCHI Conference on Human Factors in Computing Systems (SIGCHI 2011)
- **Best Paper Finalist**
For “Evaluating Search Systems Using Result Page Context”
Symposium on Information Interaction in Context (IIIX 2010)
- **Best Paper Finalist**
For “Modeling Long-Term Search Engine Usage” [First Author]
International Conference on User Modeling, Adaptation and Personalization (UMAP 2010)

Editor Recommendations

- **Editors’ Highlight**
For “Disparate Impacts on Online Information Access During the COVID-19 Pandemic”
Nature Communications
- **Editors’ Choice**
For “Early Identification of Adverse Drug Reactions from Search Log Data” [First Author]
Journal of Biomedical Informatics (JBI)

Other Awards

- **Distinguished Service Award**
ACM Transactions on Information Systems (2021)
For over 10 years' service to ACM TOIS, in various roles: Associate Editor (2010-2017), Senior Associate Editor (2017-2021), and acting Editor-in-Chief for select submissions (2018-2021)
- **Center of the SIGIR Universe**
Awarded to the author most central in the ACM SIGIR co-authorship graph over 40 years of publications at the SIGIR conference (SIGIR 2017)
- **John Moyes Lessells Scholarship**
Royal Society of Edinburgh (2003)
Competitive award funded visiting researcher position at the University of Washington, Seattle, USA

Keynotes and Award Lectures

- "TBD" at the 25th International Conference on Web Information Systems Engineering (WISE 2024), Doha, Qatar, November 2024
- "Tasks, Copilots, and the Future of Search" at the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2023), Taipei, Taiwan, July 2023
- "Intelligent Futures in Task Assistance" at the Tony Kent Strix Memorial Lecture, Online, February 2023
- "Mining and Modeling Online Health Search" at the 37th European Conference on Information Retrieval (ECIR 2015), Vienna, Austria, March 2015

Editor-in-Chief

- ACM Transactions on the Web (TWEB) (2021 – present) – Publisher: ACM
- Information Retrieval Journal (2018 – 2021) – Publisher: Springer Nature

Editorial Board Memberships, as Associate Editor (AE) and Senior Associate Editor

- Communications of the ACM (2021 – 2023) [AE, Contributed Articles and Review Articles]
- ACM Transactions on the Web (TWEB) (2011 – 2021) [Senior AE]
- ACM Transactions on Information Systems (TOIS) (2010 – 2021) [Senior AE, Acting Editor-in-Chief]
- Information Retrieval Journal (2009 – 2018) [AE]
- Foundations and Trends in Information Retrieval (FnTIR) (2014 – 2021) [AE]
- Information Processing and Management (IP&M) (2014 – 2016) [AE]

Track/Area Chairing and Senior Program Committee Memberships

- AAAI: 2017, 2018
- ACM SIGIR CHIIR: 2016, 2017, 2021
- ACM CIKM: 2010-2012, 2014, 2015-2019 [Research Track and Applied Research Track 2019], 2022, 2023
- ACM SIGIR: Program Chair: 2017; Short Papers Chair: 2015; SPC: 2010-2014, 2016, 2018-2024
- ACM SIGIR-AP: SPC: 2023
- ACM WSDM: 2012, 2016-2019, 2021-2024
- ASIS&T: 2014
- The Web Conference (WWW): Program Chair 2019; Track Chair: 2010, 2011, 2015, 2021; SPC: 2022 (x2), 2023 (x4), 2024
- ACM SIGKDD: 2022

Award Committees

- ACM SIGIR Test of Time: Member: 2020 – 2021
- IW3C2 Seoul Test of Time: Selection Committee Chair: 2023 – present, Member: 2020 – 2022
- IEEE Technical Committee on the Internet (Distinguished Service, Rising Star): Member: 2023
- ACM SIGIR Best Paper: Member: 2023

Other Organizational Roles

- Vice Chair of ACM SIGIR (2022 – present)
- Co-chair of ACM SIGIR Awards (2020 – 2022)
- Founder of ACM SIGIR Academy. Chair of selection committee for induction years 2021 and 2022
- Co-chair of ACM WSDM workshop: “Health Search and Data Mining” (2020)
- Technical program co-chair for TheWebConf 2019¹
- Technical program co-chair for ACM SIGIR 2017
- Founding chair, Steering Committee for ACM SIGIR Conference on Human Information Interaction and Retrieval (2014 – 2016)
- Short papers co-chair for ACM SIGIR 2015
- Guest co-editor of ACM TOIS special issue: “Contextual Search and Recommendation” (2013)
- Co-chair of Human Computer Interaction and Information Retrieval Symposium (2008 – 2013)
- Co-chair of ACM SIGIR workshop: “Health Search and Discovery” (2013)
- Guest co-editor of Information Processing and Management special issue: “Human-Computer Information Retrieval” (2013)
- Guest co-editor of IEEE Computer special issue: “Information Seeking Support Systems” (2009)
- Treasurer of ACM Conference on Information and Knowledge Management (2008)
- Poster chair of European Conference on Information Retrieval (2008)
- Co-chair of NSF Invitational workshop: “Information Seeking Support Systems” (2008)
- Co-chair of ACM SIGIR workshop: “Web Information Seeking and Interaction” (2007)
- Co-chair of ACM SIGCHI workshop: “Exploratory Search and HCI” (2007)
- Guest co-editor of Information Processing and Management special issue: “Evaluating Exploratory Search Systems” (2008)
- Co-chair of ACM SIGIR workshop: “Evaluating Exploratory Search Systems” (2006)
- Guest co-editor Communications of the ACM special issue: “Supporting Exploratory Search” (2006)

Professional Memberships

- ACM: Fellow (2021 – present), Member (2005 – present), SIGIR Member (2005 – present)
- British Computer Society: Fellow (2016 – present)
- IEEE: Senior Member (2021 – present), Member (2020 – present)

Doctoral Dissertation Committees

- Akhil Arora, École Polytechnique Fédérale de Lausanne, Switzerland (2024)
- Shawon Sakar, University of Washington, USA (2023)
- Tiziano Piccardi, École Polytechnique Fédérale de Lausanne, Switzerland (2021)
- Hosein Azarbondy, University of Amsterdam, The Netherlands (2019)

¹ The Web Conference 2019: The Twenty-Eighth International WWW Conference.

- Roberto González-Ibáñez, Rutgers University, USA (2013)
- Qi Guo, Emory University, USA (2012)

Publications

KEYNOTES

1. **Ryen W. White.** (2023). Tasks, copilots, and the future of search. *Proc. 45th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, pp. 5-6.

BOOKS

1. Chirag Shah and **Ryen W. White.** (2021). Task Intelligence for Search and Recommendation. *Synthesis Lectures on Information Concepts, Retrieval, and Services*, 13(3): pp. 1-160. Morgan and Claypool.
2. **Ryen W. White.** (2016). *Interactions with Search Systems*. Cambridge University Press: New York, NY. [ASIS&T BEST INFORMATION SCIENCE BOOK AWARD]
3. **Ryen W. White** and Resa A. Roth. (2009). Exploratory Search: Beyond the Query-Response Paradigm. *Synthesis Lectures on Information Concepts, Retrieval, and Services*, 1(1): pp. 1-98. Morgan and Claypool.

BOOK CHAPTERS

1. **Ryen W. White** (2011). Interactive techniques. In Ian Ruthven and Diane Kelly (Eds.), *Interactive Information Seeking, Behaviour and Retrieval*. Facet Publishing: London, UK.

INVITED EDITORIALS

1. Eric Horvitz and **Ryen W. White** (2017). Making connections: Advancing healthcare research via consumer mobile devices. *Circulation: Cardiovascular Quality and Outcomes*, 10(3).

EDITOR (* JOURNAL SPECIAL ISSUES)

1. Ling Liu, **Ryen W. White**, Amin Mantrach, Fabrizio Silvestri, Julian McAuley, Ricardo Baeza-Yates, and Leila Zia (2019). *Proceedings of the 28th International World Wide Web Conference (WWW 2019)*. ACM Press.
2. Noriko Kando, Tetsuya Sakai, Hideo Joho, Hang Li, Arjen P. de Vries, and **Ryen W. White.** (2017). *Proceedings of the 40th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2017)*. ACM Press.
3. *Paul N. Bennett, Kevyn Collins-Thompson, Diane Kelly, **Ryen W. White**, and Yi Zhang. (2015). Overview of the Special Issue on contextual search and recommendation. *ACM Transactions on Information Systems*, 33(1), 1e.
4. ***Ryen W. White**, Rob Capra, Gene Golovchinsky, Bill Kules, Daniel Tunkelang, and Catherine Smith. (2013). Human-Computer Information Retrieval. *Information Processing and Management*, 49(5).
5. Rob Capra, Bill Kules, Daniel Tunkelang, and **Ryen W. White.** (2010). *Proceedings of the Fourth Workshop on Human-Computer Information Retrieval (HCIR 2010)*.
6. Bill Kules, Daniel Tunkelang, and **Ryen W. White.** (2009). *Proceedings of the Third Workshop on Human-Computer Information Retrieval (HCIR 2009)*.
7. *Gary Marchionini and **Ryen W. White.** (2009). Information-seeking support systems. *IEEE Computer*, 42(3).
8. **Ryen W. White**, Daniel Tunkelang, and Bill Kules. (2008). *Proceedings of the Second Workshop on Human-Computer Information Retrieval (HCIR 2008)*.
9. Craig Macdonald, Iadh Ounis, Vassilis Plachouras, Ian Ruthven, and **Ryen W. White.** (2008). Advances in Information Retrieval: *Proceedings of the 30th European Conference on IR Research*.

10. ***Ryen W. White**, Gheorghe Muresan, and Gary Marchionini. (2008). Evaluating exploratory search systems. *Information Processing and Management*, 44(2).
11. Kerry Rodden, Ian Ruthven, and **Ryen W. White**. (2007). *Web Information Seeking and Interaction: Proceedings of SIGIR 2007 workshop*.
12. **Ryen W. White**, Steven M. Drucker, Gary Marchionini, Marti Hearst, and m.c. schraefel. (2007). *Exploratory Search and HCI: Proceedings of SIGCHI 2007 Workshop*.
13. **Ryen W. White**, Gheorghe Muresan, and Gary Marchionini. (2006). *Evaluating Exploratory Search Systems: Proceedings of SIGIR 2006 Workshop*.
14. ***Ryen W. White**, Bill Kules, Steven Drucker, and m.c. schraefel. Supporting exploratory search. *Communications of the ACM*, 49(4).

REFEREED JOURNAL ARTICLES

1. Kaize Ding, Elnaz Nouri, Guoqing Zheng, Huan Liu, and **Ryen W. White**. (2023). Toward robust graph semi-supervised learning against extreme data scarcity. *IEEE Transactions on Neural Networks and Learning Systems*, in press.
2. Damiano Spina, Mark Sanderson, Daniel Angus, Gianluca Demartini, Dana McKay, Lauren L. Saling, and **Ryen W. White**. (2023). Human-AI cooperation to tackle misinformation and polarisation. *Communications of the ACM*, 66(7): 40-45.
3. Alex C. Williams, Shamsi Iqbal, Julia Kiseleva, and **Ryen W. White**. (2023). Managing tasks across the work-life boundary: Opportunities, challenges, and directions. *ACM Transactions on Computer-Human Interaction*, 30(3): 1-31.
4. Yufan Kang, Mohammad Saiedur Rahaman, Yongli Ren, Mark Sanderson, **Ryen W. White**, and Flora D. Salim. (2022). App usage on-the-move: Context- and commute-aware next app prediction. *Pervasive and Mobile Computing*, 87, 101704.
5. Jina Suh, Eric Horvitz, **Ryen W. White**, and Tim Althoff. (2022). Disparate impacts on online information access during the COVID-19 pandemic. *Nature Communications*, 13, 7094.
6. Yonchanok Khaokaew, Indigo Holcombe-James, Mohammad Saiedur Rahaman, Jonathan Liono, Johanne R. Trippas, Damiano Spina, Peter Bailey, Nicholas Belkin, Paul N. Bennett, Yongli Ren, Mark Sanderson, Falk Scholer, **Ryen W. White**, and Flora D. Salim. (2022). Imagining future digital assistants at work: A study of task management needs. *International Journal of Human-Computer Studies*, 168, 102905.
7. **Ryen W. White**. (2022). Intelligent futures in task assistance. *Communications of the ACM*, 65(11), 35-39.
8. Kristina Gligorić, Arnaud Chiolero, Emre Kiciman, **Ryen W. White**, and Robert West. (2022). Population-scale dietary interests during the COVID-19 pandemic. *Nature Communications*, 13(1), 1073.
9. Chuxu Zhang, Julia Kiseleva, Sujay Kumar Jauhar, and **Ryen W. White**. (2021). Grounded task prioritization with context-aware sequential ranking. *ACM Transactions on Information Systems*, 40(4):68.
10. **Ryen W. White**, Elnaz Nouri, James Woffinden-Luey, Mark Encarnacion, and Sujay Kumar Jauhar. (2020). Microtask detection. *ACM Transactions on Information Systems*, 39(2), 1-29.
11. Paul Thomas, Bodo Billerbeck, Nick Craswell, and **Ryen W. White**. (2019). Investigating searchers' mental models to inform search explanations. *ACM Transactions on Information Systems*, 38(1), 1-25.
12. **Ryen W. White** and Eric Horvitz. (2019). Population-scale hand tremor analysis via anonymized mouse cursor signals. *npj Digital Medicine*, 2(1), 1-7.
13. **Ryen W. White**, Adam Fourney, Allen Herring, Paul N. Bennett, Niru Chandrasekaran, Robert Sim, Elnaz Nouri, and Mark Encarnación. (2019). Multi-device digital assistance. *Communications of the ACM*, 62(10), 28-31.
14. Mehrdad Farajtabar, Emre Kiciman, Girish Nathan, and **Ryen W. White**. (2018). Modeling behaviors and lifestyle with online and social data for prediction and analysis of sleep and exercise quality. *International Journal of Data Science and Analytics*, 8(4), 367-383.
15. **Ryen W. White**. (2018). Opportunities and challenges in search interaction. *Communications of the ACM*, 61(12), 36-38.

16. **Ryen W. White.** (2018). Skill discovery in virtual assistants. *Communications of the ACM*, 61(11), 106-113.
17. **Ryen W. White**, P. Murali Doraiswamy, and Eric Horvitz. (2018). Detecting neurodegenerative disorders from web search signals. *npj Digital Medicine*, 1(1), 1-4.
18. Rave Harpaz, William DuMouchel, Martijn Schuemie, Olivier Bodenreider, Carol Friedman, Eric Horvitz, Anna Ripple, Alfred Sorbello, **Ryen W. White**, Rainer Winnenburger, and Nigam Shah. (2017). Toward multimodal signal detection of adverse drug reactions. *Journal of Biomedical Informatics*, 76: 41-49.
19. Tim Althoff, Eric Horvitz, and **Ryen W. White.** (2017). Psychomotor function measured via online activity predicts motor vehicle fatality risk. *npj Digital Medicine*, 1(1), 1-2.
20. Tim Althoff, **Ryen W. White**, and Eric Horvitz. (2016). Influence of Pokémon Go on physical activity: Study and implications. *Journal of Medical Internet Research*, 18(12), e315.
21. **Ryen W. White**, Fernando Diaz, and Qi Guo. (2016). Search result prefetching on desktop and mobile. *ACM Transactions on Information Systems*, 35(3), 1-34.
22. **Ryen W. White** and Eric Horvitz (2016). Evaluation of the feasibility of screening patients for early signs of lung carcinoma in web search logs. *JAMA Oncology*, 3(3), 398-401.
23. John Paparrizos, **Ryen W. White**, and Eric Horvitz (2016). Screening for pancreatic adenocarcinoma using signals from web search logs: Feasibility study and results. *Journal of Oncology Practice*, 12(8), 737-744.
24. Michael J. Paul, **Ryen W. White**, and Eric Horvitz. (2016). Search and breast cancer: On episodic shifts of attention over life histories of an illness. *ACM Transactions on the Web*, 10(2), 1-27.
25. **Ryen W. White**, Sheng Wang, Apurv Pant, Rave Harpaz, Pushpraj Shukla, Walter Sun, William DuMouchel, and Eric Horvitz. (2016). Early identification of adverse drug reactions from search log data. *Journal of Biomedical Informatics*, 59, 42-48. [EDITORS' CHOICE AWARD]
26. **Ryen W. White** and Eric Horvitz. (2015). Belief dynamics and biases in web search. *ACM Transactions on Information Systems*, 33(4), 1-46.
27. Roberto González-Ibáñez, Chirag Shah, and **Ryen W. White.** (2015). Capturing collaboration opportunities: A method to evaluate collaboration opportunities in information search using pseudo-collaboration. *Journal of the American Society for Information Science and Technology*, 66(9), 1897-1912.
28. Rave Harpaz, David Odgers, Greg Gaskin, William DuMouchel, Rainer Winnenburger, Olivier Bodenreider, Anna Ripple, Ana Szarfman, Alfred Sorbello, Eric Horvitz, **Ryen W. White**, and Nigam Shah. (2014). A time-indexed reference standard of adverse drug reactions. *Nature Scientific Data*, 1(1), 1-10.
29. **Ryen W. White** and Ahmed Hassan. (2014). Content bias in online health search. *ACM Transactions on the Web*, 8(4), 1-33.
30. **Ryen W. White***, Rave Harpaz*, Nigam Shah, William DuMouchel, and Eric Horvitz. (2014). Toward enhanced pharmacovigilance using patient-generated data on the Internet. *Nature Clinical Pharmacology and Therapeutics (Nature CPT)* (* = shared first authorship), 96(2), 239-246.
31. Elad Yom-Tov, **Ryen W. White**, and Eric Horvitz. (2014). Seeking insights about cycling mood disorders via anonymized search logs. *Journal of Medical Internet Research*, 16(2), e2664.
32. **Ryen W. White.** (2014). Belief dynamics in Web search. *Journal of the American Society for Information Science and Technology*, 65(11), 2165-2178.
33. Jaime Teevan, Kevyn Collins-Thompson, **Ryen W. White**, and Susan Dumais. (2014). Slow search. *Communications of the ACM*, 57(8), 36-38.
34. **Ryen W. White** and Eric Horvitz. (2014). From health search to health care: explorations of intention and utilization via query logs and user surveys. *Journal of the American Medical Informatics Association*, 21(1), 49-55.
35. **Ryen W. White** and Eric Horvitz. (2013). Captions and biases in diagnostic search. *ACM Transactions on the Web*, 7(4), 1-28.
36. **Ryen W. White**, Nicholas P. Tatonetti, Nigam H. Shah, Russ B. Altman, and Eric Horvitz. (2013). Web-scale pharmacovigilance: listening to signals from the crowd. *Journal of the American Medical Informatics Association*, 20(3), 404-408.

37. **Ryen W. White** and Eric Horvitz. (2013). From web search to healthcare utilization: privacy-sensitive studies from mobile data. *Journal of the American Medical Informatics Association*, 20(1), 61-68.
38. Peter Bailey, **Ryen W. White**, Han Liu, and Giridhar Kumaran. (2010). Mining past query trails to label long and rare search engine queries. *ACM Transactions on the Web*, 4(4), 1-27.
39. Max Wilson, m.c. schraefel, and **Ryen W. White**. (2010). Evaluating advanced search interfaces using established information-seeking models. *Journal of the American Society for Information Science and Technology*, 60(7), 1407-1422. [BEST PAPER AWARD]
40. **Ryen W. White** and Eric Horvitz. (2009). Cyberchondria: studies of the escalation of medical concerns in web search. *ACM Transactions on Information Systems*, 27(4): 1-37.
41. **Ryen W. White**, Mikhail Bilenko, and Silviu Cucerzan. (2008). Leveraging popular destinations to enhance web search interaction. *ACM Transactions on the Web*, 2(3), 1-30.
42. Andy Edmonds, **Ryen W. White**, Dan Morris, and Steven M. Drucker. (2007). Instrumenting the dynamic web. *Journal of Web Engineering*, 6(3), 243-260
43. Gary Marchionini and **Ryen W. White**. (2007). Find what you need, understand what you find. *International Journal of Human-Computer Interaction*, 23(3), 205-237.
44. **Ryen W. White** and Gary Marchionini. (2007). Examining the effectiveness of real-time query expansion. *Information Processing and Management*, 43(3), 685-704.
45. **Ryen W. White**. (2006). Using searcher simulations to redesign a polyrepresentative implicit feedback interface. *Information Processing and Management*, 42(5), 1185-1202.
46. **Ryen W. White** and Ian Ruthven. (2006). A study of interface support mechanisms for interactive information retrieval. *Journal of the American Society for Information Science and Technology*, 57(7), 933-948.
47. **Ryen W. White**, Ian Ruthven, Joemon M. Jose, and C. J. van Rijsbergen. (2005). Evaluating implicit feedback models using searcher simulations. *ACM Transactions on Information Systems*, 23(3), 325-361.
48. **Ryen W. White**, Joemon M. Jose, and Ian Ruthven. (2005). Using top-ranking sentences to facilitate effective information access. *Journal of the American Society for Information Science and Technology*, 56(10), 1113-1125.
49. **Ryen W. White**, Joemon M. Jose, and Ian Ruthven. (2004). An implicit feedback approach for interactive information retrieval. *Information Processing and Management*, 42(1), 166-190.
50. **Ryen W. White**, Joemon M. Jose, and Ian Ruthven. (2003). A task-oriented study on the influencing effects of query-biased summarisation in web searching. *Information Processing and Management*, 39(5), 707-733.

REFEREED CONFERENCE PAPERS

1. Dong-Ho Lee, Jay Pujara, Mohit Sewak, **Ryen W. White**, and Sujay Kumar Jauhar. (2023). Making large language models better data creators. *Proc. 2023 Conference on Empirical Methods in Natural Language Processing*, in press.
2. Ali MontazerAlghaem, Nick Craswell, **Ryen W. White**, Ahmed H. Awadallah, and Byungki Byun. (2023). Algorithmic vibe in information retrieval. *Proc. 32nd ACM Web Conference*, 3278-3287.
3. Chirag Shah, **Ryen W. White**, Paul Thomas, Bhaskar Mitra, Shawon Sarkar, and Nicholas Belkin. (2023). Taking search to task. *Proc. 8th ACM SIGIR Conference on Human Information Interaction and Retrieval*, 1-13.
4. Marwah Alaofi, Luke Gallagher, Dana Mckay, Lauren L. Saling, Mark Sanderson, Falk Scholer, Damiano Spina, and **Ryen W. White**. (2022). Where do queries come from? *Proc. 45th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 2850-2862.

5. Sujay Kumar Jauhar, Nirupama Chandrasekaran, Michael Gamon, and **Ryen W. White**. (2022). MS-LaTTE: a dataset of where and when to-do tasks are completed. *Proc. 13th Conference on Language Resources and Evaluation*, in press.
6. Farnaz Jahanbakhsh, Elnaz Nouri, Robert Sim, **Ryen W. White**, and Adam Fourney. (2022). Understanding questions that arise when working with business documents. *Proceedings of the ACM on Human-Computer Interaction*, (CSCW), in press.
7. Paul Thomas, Gabriella Kazai, **Ryen W. White**, and Nick Craswell. (2022). The crowd is made of people: observations from large-scale crowd labelling. *Proc. 7th ACM SIGIR Conference on Human Information Interaction and Retrieval*, 25-35.
8. Yi Zhang, Sujay Kumar Jauhar, Julia Kiseleva, **Ryen W. White**, and Dan Roth. (2021). Learning to decompose and organize complex tasks. *Proc. Annual Conference of the North American Chapter of the Association for Computational Linguistics*, 2726-2735.
9. Kristina Gligorić, **Ryen W. White**, Emre Kiciman, Eric Horvitz, Arnaud Chiolero, and Robert West. (2021). Formation of social ties predicts food choice: a campus-wide longitudinal study. *Proceedings of the ACM on Human-Computer Interaction*, 5(CSCW1), 1-25. [BEST PAPER HONORABLE MENTION]
10. Jina Suh, Eric Horvitz, **Ryen W. White**, and Tim Althoff. (2021). Population-scale study of human needs during the COVID-19 pandemic: analysis and implications. *Proc. 14th Annual International ACM WSDM Conference on Web Search and Data Mining*, 4-12.
11. Bahareh Sarrafzadeh, Sujay Kumar Jauhar, Michael Gamon, Edward Lank, and **Ryen W. White**. (2020). Characterizing stage-aware writing assistance for collaborative document authoring. *Proceedings of the ACM on Human-Computer Interaction*, 4(CSCW3), 1-29.
12. Jonathan Liono, Mohammad Saiedur Rahaman, Flora D. Salim, Yongli Ren, Damiano Spina, Falk Scholer, Johanne R. Trippas, Mark Sanderson, Paul N. Bennett, and **Ryen W. White**. Intelligent task recognition: towards enabling productivity assistance in daily life. *Proc. 10th ACM Conference on Multimedia Retrieval*, 472-478.
13. Maartje ter Hoeve, Robert Sim, Elnaz Nouri, Adam Fourney, Maarten de Rijke, and **Ryen W. White**. Conversations with documents: an exploration of document-centered assistance. *Proc. 5th ACM SIGIR Conference on Human Information Interaction and Retrieval*, 43-52.
14. Elnaz Nouri and **Ryen W. White**. Step-wise recommendation for complex task support. *Proc. 5th ACM SIGIR Conference on Human Information Interaction and Retrieval*, 203-212.
15. Leif Azzopardi, **Ryen W. White**, Paul Thomas, and Nick Craswell. Data-driven evaluation metrics for heterogeneous search engine result pages. *Proc. 5th ACM SIGIR Conference on Human Information Interaction and Retrieval*, 213-222.
16. Alexandra Vtyurina, Adam Fourney, Meredith Morris, Leah Findlater and **Ryen W. White**. VERSE: bridging screen readers and voice assistants for enhanced eyes-free web search. *Proc 21st International ACM SIGACCESS Conference on Computers and Accessibility*, 414-426. [BEST PAPER HONORABLE MENTION]
17. Alex C. Williams, Adam Fourney, Shamsi Iqbal, **Ryen W. White**, Jaime Teevan, and Harmanpreet Kaur. Mercury: Empowering programmers' mobile practices with microproductivity. *Proc. 32nd ACM Symposium on User Interface Software and Technology*, 81-94.
18. **Ryen W. White**, Ahmed Hassan Awadallah, and Robert Sim. Task completion detection. *Proc. 42nd ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2019)*, 405-414.
19. Johanne R. Trippas, Damiano Spina, Falk Scholer, Ahmed Hassan Awadallah, Peter Bailey, Paul N. Bennett, **Ryen W. White**, Jonathan Liono, Yongli Ren, Flora D. Salim, and Mark Sanderson. (2019). Learning about work tasks to inform intelligent assistant design *Proc. ACM SIGIR Conference on Human Information Interaction and Retrieval*, 5-14.

20. **Ryen W. White** and Ahmed Hassan Awadallah. (2019). Task duration estimation. *Proc. 12th Annual International ACM WSDM Conference on Web Search and Data Mining*, 636-644.
21. Hosein Azarbonyad, Robert Sim, and **Ryen W. White**. (2019). Domain adaptation for commitment detection in email. *Proc. 12th Annual International ACM WSDM Conference on Web Search and Data Mining*, 672-680.
22. Yu Su, Ahmed Hassan Awadallah, Miaosen Wang, and **Ryen W. White**. (2018). Natural language interfaces with fine-grained user interaction: A case study on web APIs. *Proc. 41st Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 855-864.
23. Hua He, Kris Ganjam, Navendu Jain, Jessica Lundin, **Ryen W. White**, and Jimmy Lin. (2017). An insight extraction system on biomedical literature with deep neural networks. *Proc. Conference on Empirical Methods in Natural Language Processing*, 2691-2701.
24. Tim Althoff, Eric Horvitz, **Ryen W. White**, and Jamie Zeitzer. (2017). Population-scale study of sleep and performance. *Proc. 26th International World Wide Web Conference*, 113-122.
25. Adam Fourney, Meredith Ringel Morris, and **Ryen W. White**. (2017). Web search as a linguistic tool. *Proc. 26th International World Wide Web Conference*, 549-557.
26. John Paparrizos, **Ryen W. White**, and Eric Horvitz. (2016). Detecting devastating diseases in search logs. *Proc. 22nd ACM SIGKDD Conference on Knowledge Discovery and Data Mining*, 559-568.
27. David Graus, Paul N. Bennett, **Ryen W. White**, and Eric Horvitz. (2016). Analyzing and predicting task reminders. *Proc. 24th Annual ACM UMAP Conference on User Modeling, Adaptation and Personalization*, 7-15. [BEST STUDENT PAPER AWARD]
28. Fernando Diaz, Qi Guo, and **Ryen W. White**. (2016). Search result prefetching using cursor movement. *Proc. 39th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 609-618.
29. Sandro Bauer, Filip Radlinski, and **Ryen W. White**. (2016). Where can I buy a boulder? Searching for offline retail locations. *Proc. 25th International World Wide Web Conference*, 1225-1235.
30. Daan Odijk, **Ryen W. White**, Ahmed Hassan Awadallah, and Susan Dumais. (2015). Struggle and success in web search. *Proc. 24th ACM International Conference on Information and Knowledge Management*, 1551-1560. [BEST STUDENT PAPER AWARD]
31. **Ryen W. White** and Ahmed Hassan Awadallah. (2015). Personalizing search on shared devices. *Proc. 38th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 523-532.
32. Adish Singla, Eric Horvitz, Pushmeet Kohli, **Ryen W. White**, and Andreas Krause. (2015). Information gathering in networks via active exploration. *Proc. International Joint Conferences on Artificial Intelligence*, in press.
33. Michael Paul, **Ryen W. White**, and Eric Horvitz. (2015). Diagnoses, decisions, and outcomes: Web search as medical decision support for cancer. *Proc. 24th International World Wide Web Conference*, 831-841.
34. Adam Fourney, **Ryen W. White**, and Eric Horvitz. (2015). Exploring time-dependent concerns about pregnancy and childbirth from search logs. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 737-746. [BEST PAPER HONORABLE MENTION]
35. Jiepu Jiang, Ahmed Hassan, Xiaolin Shi, and **Ryen W. White**. (2015). Understanding and predicting graded search satisfaction. *Proc. 8th Annual International ACM WSDM Conference on Web Search and Data Mining*, 57-66.
36. George Montanez, **Ryen W. White**, and Xiao Huang. (2014). Cross-device search. *Proc. 23rd ACM CIKM Conference on Information and Knowledge Management*, 1669-1678. [BEST PAPER AWARD]
37. Ahmed Hassan, **Ryen W. White**, Patrick Pantel, Susan Dumais, and Yi-Min Wang. (2014). Supporting complex search tasks. *Proc. 23rd ACM CIKM Conference on Information and Knowledge Management*, 829-838.

38. Georg Schoenherr and **Ryen W. White**. (2014). Interactions between health searchers and search engines. *Proc. 37th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 143-152.
39. Jinyun Yan, Wei Chu, and **Ryen W. White**. (2014). Cohort modeling for enhanced personalized search. *Proc. 37th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 505-514.
40. Nina Mishra, **Ryen W. White**, Samuel leong, and Eric Horvitz. (2014). Time-critical search. *Proc. 37th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 747-756.
41. Hongning Wang, Yang Song, Ming-Wei Chang, Xiaodong He, Ahmed Hassan, and **Ryen W. White**. (2014). Modeling action-level satisfaction for search task satisfaction prediction. *Proc. 37th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 123-132.
42. Yang Song, Xiaolin Shi, **Ryen W. White**, and Ahmed Hassan. (2014). Context-aware web search abandonment prediction. *Proc. 37th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 93-102.
43. Adish Singla, Ece Kamar, **Ryen W. White**, and Eric Horvitz. (2014). Stochastic privacy. *Proc. 28th AAAI Conference on Artificial Intelligence*, in press.
44. **Ryen W. White**, Ahmed Hassan, Adish Singla, and Eric Horvitz. (2014). From devices to people: Attribution of search activity in multi-user settings. *Proc. 23rd International World Wide Web Conference*, 431-442.
45. Munmun De Choudhury, Meredith Ringel Morris, and **Ryen W. White**. (2014). Seeking and sharing health information online: Comparing search engines and social media. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 1365-1376.
46. Carsten Eickhoff, Jaime Teevan, **Ryen W. White**, and Susan Dumais. (2014). Lessons from the journey: A query log analysis of within-session learning. *Proc. 7th Annual International ACM WSDM Conference on Web Search and Data Mining*, 223-232.
47. Ahmed Hassan, **Ryen W. White**, Susan Dumais, and Yi-Min Wang. (2014). Struggling or exploring? Disambiguating long search sessions. *Proc. 7th Annual International ACM WSDM Conference on Web Search and Data Mining*, 53-62.
48. Youngho Kim, Ahmed Hassan, **Ryen W. White**, and Imed Zitouni. (2014). Modeling dwell time to predict click-level satisfaction. *Proc. 7th Annual International ACM WSDM Conference on Web Search and Data Mining*, 193-202.
49. Jaime Teevan, Kevyn Collins-Thompson, **Ryen W. White**, Susan Dumais, and Yubin Kim. (2013). Slow search: information retrieval without time constraints. *Proc. 7th Symposium on Human-Computer Interaction and Information Retrieval*, article 1.
50. Ahmed Hassan and **Ryen W. White**. (2013). Personalized models of search satisfaction. *Proc. 22nd ACM International Conference on Information and Knowledge Management*, 2009-2018.
51. Fernando Diaz, **Ryen W. White**, Dan Liebling, and Georg Buscher. (2013). Robust models of mouse movement on dynamic web search results pages. *Proc. 22nd ACM International Conference on Information and Knowledge Management*, 1451-1460.
52. **Ryen W. White**. (2013). Beliefs and biases in web search. *Proc. 36th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 3-12. [BEST PAPER AWARD] [TEST OF TIME AWARD]
53. Milad Shokouhi, **Ryen W. White**, Paul Bennett, and Filip Radlinski. (2013). Fighting search engine amnesia: reranking repeated results. *Proc. 36th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 273-282.

54. Hongning Wang, Xiaodong He, Ming-Wei Chang, Yang Song, **Ryen W. White**, and Wei Chu. (2013). Personalized ranking model adaptation for web search. *Proc. 36th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 323-332.
55. Ahmed Hassan, **Ryen W. White**, and Yi-Min Wang. (2013). Toward self-correcting search engines: using underperforming queries to improve search. *Proc. 36th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 263-272.
56. Robert West, **Ryen W. White**, and Eric Horvitz. (2013). From cookies to cooks: insights on dietary patterns via analysis of web usage logs. *Proc. 22nd International World Wide Web Conference*, 1399-1410.
57. **Ryen W. White**, Wei Chu, Ahmed Hassan, Xiaodong He, Yang Song, and Hongning Wang. (2013). Enhancing personalized search by mining and modeling task behavior. *Proc. 22nd International World Wide Web Conference*, 1411-1420.
58. Hongning Wang, Yang Song, Ming-Wei Chang, Xiaodong He, **Ryen W. White**, and Wei Chu. (2013). Learning to extract cross-session search tasks. *Proc. 22nd International World Wide Web Conference*, 1353-1364.
59. Henry Feild, **Ryen W. White**, and Xin Fu. (2013). Supporting orientation during search result examination. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 2999-3008.
60. Yu Wang, Xiao Huang, and **Ryen W. White**. (2013). Characterizing and supporting cross-device search tasks. *Proc. 6th Annual International ACM WSDM Conference on Web Search and Data Mining*, 707-716.
61. Youngho Kim, Ahmed Hassan, **Ryen W. White**, and Yi-Min Wang. (2013). Playing by the rules: mining query associations to predict search performance. *Proc. 6th Annual International ACM WSDM Conference on Web Search and Data Mining*, 133-142.
62. Abdigani Diriye, **Ryen W. White**, Georg Buscher, and Susan Dumais. (2012). Leaving so soon? understanding and predicting web search abandonment. *Proc. 21st ACM International Conference on Information and Knowledge Management*, 1025-1034.
63. Ahmed Hassan and **Ryen W. White**. (2012). Task tours: helping users tackle complex search tasks. *Proc. 21st ACM International Conference on Information and Knowledge Management*, 1885-1889.
64. **Ryen W. White** and Eric Horvitz. (2012). On the onset and persistence of medical concerns in search logs. *Proc. 35th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 265-274.
65. Jeff Huang, **Ryen W. White**, Georg Buscher, and Kuansan Wang. (2012). Improving searcher models using mouse cursor activity. *Proc. 35th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 195-204.
66. Paul N. Bennett, **Ryen W. White**, Wei Chu, Susan Dumais, Peter Bailey, Fedor Borisyuk, and Xiaoyuan Cui. (2012). Modeling the impact of short and long-term behavior on search personalization. *Proc. 35th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 185-194. [TEST OF TIME AWARD]
67. Eugene Agichtein, **Ryen W. White**, Susan Dumais, and Paul N. Bennett. (2012). Search, interrupted: understanding and predicting search task continuation. *Proc. 35th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 315-324.
68. Xiaojun Yuan and **Ryen W. White**. (2012). Building the trail best traveled: effects of domain knowledge on web search trailblazing. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 1795-1804
69. Jeff Huang, **Ryen W. White**, and Georg Buscher. (2012). User see, user point: gaze and cursor alignment in web search. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 1341-1350.

70. Scott Bateman, Jaime Teevan, and **Ryen W. White**. (2012). The search dashboard: how reflection and comparison impact search behavior. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 1785-1794.
71. **Ryen W. White** and Georg Buscher. (2012). Characterizing local interests and local knowledge. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 1607-1610.
72. Jeff Huang, Tom Lin, and **Ryen W. White**. (2012). No search result left behind: branching behavior with browser tabs. *Proc. 5th Annual International ACM WSDM Conference on Web Search and Data Mining*, 203-212.
73. David Sontag, Kevyn Collins-Thompson, Paul Bennett, **Ryen W. White**, Susan Dumais, and Bodo Billerbeck. (2012). Probabilistic models for personalizing web search. *Proc. 5th Annual International ACM WSDM Conference on Web Search and Data Mining*, 433-442.
74. Georg Buscher, **Ryen W. White**, Susan Dumais, and Jeff Huang. (2012). Large-scale analysis of individual and task differences in search result page examination strategies. *Proc. 5th Annual International ACM WSDM Conference on Web Search and Data Mining*, 373-382.
75. Victor Hu, Maria Stone, Jan Pedersen, and **Ryen W. White**. (2011). Effects of search success on search engine re-use. *Proc. 20th ACM International Conference on Information and Knowledge Management*, 1841-1846.
76. Kevyn Collins-Thompson, Paul N. Bennett, **Ryen W. White**, Sebastian de la Chica, and David Sontag. (2011). Personalizing web search results by reading level. *Proc. 20th ACM International Conference on Information and Knowledge Management*, 403-412.
77. Marc-Allen Cartright, **Ryen W. White**, and Eric Horvitz. (2011). Intentions and attention in exploratory health search. *Proc. 34th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 65-74.
78. Alex Kotov, Paul Bennett, **Ryen W. White**, Susan Dumais, and Jaime Teevan. (2011). Modeling and analysis of cross-session search tasks. *Proc. 34th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 5-14.
79. Paul Bennett, Filip Radlinski, **Ryen W. White**, and Emine Yilmaz. (2011). Inferring and using location metadata to personalize web search. *Proc. 34th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 135-144.
80. Qi Guo, **Ryen W. White**, Yunqiao Zhang, Blake Anderson, and Susan Dumais. (2011). Why searchers switch: understanding and predicting engine switching rationales. *Proc. 34th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 335-344.
81. **Ryen W. White**, Matthew Richardson, and Yandong Liu. (2011). Effects of community size and contact rate in synchronous social Q&A. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 2837-2846. [BEST PAPER AWARD]
82. Jeff Huang, **Ryen W. White**, and Susan Dumais. (2011). No clicks, no problem: using cursor movements to understand and improve search. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 1225-1234. [BEST PAPER HONORABLE MENTION]
83. Matthew Richardson and **Ryen W. White**. (2011). Supporting synchronous social Q&A throughout the question lifecycle. *Proc. 20th International World Wide Web Conference*, 755-764.
84. Pavel Serdyukov, Mike Taylor, Vishwa Vinay, Matthew Richardson, and **Ryen W. White**. (2011). Automatic people tagging for expertise profiling in the enterprise. *Proc. 33rd European Conference on Information Retrieval*, 399-410.
85. Paul André, m.c. schraefel, Alan Dix, and **Ryen W. White**. (2011). Expressing well-being online: towards self-reflection and social awareness. *Proc. iConference*, 114-121.

86. **Ryen W. White** and Eric Horvitz. (2010). Web to world: predicting transitions from self-diagnosis to the pursuit of local medical assistance in web search. *Proc. Annual Symposium of the American Medical Informatics Association*, 882-886.
87. **Ryen W. White**, Paul Bennett, and Susan Dumais. (2010). Predicting short-term interests using activity-based search context. *Proc. 19th Annual ACM CIKM Conference on Information and Knowledge Management*, 1009-1018.
88. Peter Bailey, Nick Craswell, **Ryen W. White**, Liwei Chen, Ashwin Satyanarayana, and S.M.M. Tahaghoghi. (2010). Evaluating search systems using result page context. *Proc. 3rd Symposium on Information Interaction in Context*, 105-114. [BEST PAPER FINALIST]
89. Adish Singla, **Ryen W. White**, and Jeff Huang. (2010). Studying trailfinding algorithms for enhanced web search. *Proc. 33rd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 443-450.
90. Chao Liu, **Ryen W. White**, and Susan Dumais. (2010). Understanding web browsing behaviors through Weibull analysis of dwell time. *Proc. 33rd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 379-386.
91. **Ryen W. White** and Jeff Huang. (2010). Assessing the scenic route: measuring the value of search trails in web logs. *Proc. 33rd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 587-594. [BEST PAPER AWARD]
92. Jeff Huang and **Ryen W. White**. (2010). Parallel browsing behavior on the web. *Proc. 21st ACM Conference on Hypertext and Hypermedia*, 13-17.
93. **Ryen W. White**, Susan Dumais, and Ashish Kapoor. (2010). Modeling long-term search engine usage. *Proc. 19th International Conference on User Modeling, Adaptation and Personalization*, 28-39. [BEST PAPER FINALIST]
94. Qi Guo, **Ryen W. White**, Susan Dumais, Jue Wang, and Blake Anderson. (2010). Predicting query performance using query, result, and user interaction features. *Proc. 9th International Conference on Adaptivity, Personalization and Fusion of Heterogeneous Information*, 198-201.
95. Paul André, m.c. schraefel, Alan Dix, and **Ryen W. White**. (2010). Experience in social affective applications: methodologies and case study. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 2755-2764.
96. **Ryen W. White** and Susan Dumais. (2009). Characterizing and predicting search engine switching behavior. *Proc. 18th Annual ACM CIKM Conference on Information and Knowledge Management*, 87-96.
97. **Ryen W. White** and Eric Horvitz. (2009). Experiences with web search on medical concerns and self diagnosis. *Proc. Annual Symposium of the American Medical Informatics Association*, 696-700.
98. **Ryen W. White**, Peter Bailey, and Liwei Chen. (2009). Predicting user interests from contextual information. *Proc. 32nd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 363-370.
99. Maryam Karimzadehgan, **Ryen W. White**, and Matthew Richardson. (2009). Enhancing expert finding using organizational hierarchies. *Proc. 31st European Conference on Information Retrieval*, 177-188.
100. **Ryen W. White**, Susan Dumais, and Jaime Teevan. (2009). Characterizing the influence of domain expertise on web search behavior. *Proc. 2nd Annual International ACM WSDM Conference on Web Search and Data Mining*, 132-141.
101. Srivatsan Laxman, Vikram Tankasali, and **Ryen W. White**. (2008). Stream prediction using a generative model based on frequent episodes in event sequences. *Proc. 14th Annual International ACM SIGKDD Conference on Knowledge Discovery and Data Mining*, 453-461.
102. **Ryen W. White**, Matthew Richardson, Mikhail Bilenko, and Allison P. Heath. (2008). Enhancing web search by promoting multiple search engine use. *Proc. 31st Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 43-50.

103. Mikhail Bilenko and **Ryen W. White**. (2008). Mining the search trails of surfing crowds: identifying relevant websites from user activity. *Proc. 17th International World Wide Web Conference*, 51-60.
104. Massimo Melucci and **Ryen W. White**. (2007). Utilizing a geometry of context for enhanced implicit feedback. *Proc. 16th Annual ACM CIKM Conference on Information and Knowledge Management*, 273-282.
105. Massimo Melucci and **Ryen W. White**. (2007). Discovering hidden contextual factors for implicit feedback. *Proc. Workshop on Contextual Information Retrieval (part of the 6th International and Interdisciplinary Conference on Modeling and Using Context, CONTEXT 2007)*.
106. **Ryen W. White**, Mikhail Bilenko, and Silviu Cucerzan. (2007). Studying the use of popular destinations to enhance web search interaction. *Proc. 30th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 159-166. [BEST PAPER AWARD]
107. **Ryen W. White** and Dan Morris. (2007). Investigating the querying and browsing behavior of advanced search engine users. *Proc. 30th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 255-262.
108. Charles L.A. Clarke, Eugene Agichtein, Susan Dumais, and **Ryen W. White**. (2007). The influence of caption features on clickthrough patterns in web search. *Proc. 30th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 135-142.
109. **Ryen W. White** and Steven M. Drucker. (2007). Investigating behavioral variability in web search. *Proc. 16th International World Wide Web Conference*, 21-30.
110. **Ryen W. White**, Steven M. Drucker, Gary Marchionini, Marti Hearst, and mc schraefel. (2007). Exploratory search and HCI: designing and evaluating interfaces to support exploratory search interaction. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 2877-2880.
111. Douglas W. Oard, Jianqiang Wang, Gareth J.F. Jones, **Ryen W. White**, Pavel Pecina, Dagobert Soergel, Xiaoli Huang, and Izhak Shafran. (2006). Overview of the CLEF-2006 Cross-Language Speech Retrieval Track. *Proc. Cross-Language Evaluation Forum*, 744-758.
112. **Ryen W. White** and Diane Kelly. (2006). A study on the effects of personalization and task information on implicit feedback performance. *Proc. 15th Annual ACM CIKM Conference on Information and Knowledge Management*, 297-306.
113. **Ryen W. White**, Hyun Young Song, Jay Liu. (2006). Concept maps to support oral history search and use. *Proc. ACM Joint Conference on Digital Libraries*, 192-193.
114. Penelope Brooks, Khoo Yit Phang, Douglas W. Oard, **Ryen W. White**, Rachael Bradley, and François Gumbretière. (2006). Measuring the utility of gaze detection for task modeling: a study design. *Proc. Workshop on Intelligent User Interfaces for Intelligence Analysis (part of IUI 2006)*.
115. **Ryen W. White**, Douglas W. Oard, Dagobert Soergel, Xiaoli Huang, and Gareth Jones. (2006). Overview of the CLEF2005 Cross-Language Speech Retrieval Track. *Proc. Cross-Language Evaluation Forum*, 744-759.
116. **Ryen W. White**. (2005). *Contextual simulations for information retrieval evaluation*. *Proc. Information Retrieval in Context Workshop (IRiX 2005, part of SIGIR 2005)*.
117. **Ryen W. White**, Ian Ruthven, and Joemon M. Jose. (2005). A study of factors affecting the utility of implicit relevance feedback. *Proc. 28th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 35-42.
118. **Ryen W. White**, Joemon M. Jose, C.J. van Rijsbergen, and Ian Ruthven. (2004). A simulated study of implicit feedback models. *Proc. 26th Annual European Conference on Information Retrieval*, 311-326. [BEST STUDENT PAPER AWARD]
119. **Ryen W. White**, Joemon M. Jose, Ian Ruthven. (2003). A granular approach to web search result presentation. *Proc. 9th IFIP TC13 International Conference on Human-Computer Interaction*, 213-220. [BEST PAPER AWARD]

120. Anastasios Tombros, Ian Ruthven, Joemon M. Jose, and **Ryen W. White**. (2003). Clustering the information space using top-ranking sentences: a study of user interaction. *Proc. 9th IFIP TC13 International Conference on Human-Computer Interaction*, 928-931.
121. Richard Osdin, Iadh Ounis, **Ryen W. White**. (2002). Using hierarchical clustering and summarisation approaches for web retrieval: Glasgow at the TREC 2002 interactive track. *Proc. Text REtrieval Conference*.
122. **Ryen W. White**, Joemon M. Jose, Ian Ruthven. (2002). Implicit contextual modelling for information seeking. *Proc. Glasgow Context Group 1st Colloquium: "Building Bridges: Interdisciplinary Context-Sensitive Computing"*.
123. **Ryen W. White**, Ian Ruthven, Joemon M. Jose. (2002). Finding relevant documents using top-ranking sentences: an evaluation of two alternative schemes. *Proc. 25th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 57-64.
124. **Ryen W. White**, Ian Ruthven, Joemon M. Jose. (2002). The use of implicit evidence for relevance feedback in web retrieval. *Proc. 24th BSC-IRSG European Colloquium on IR Research*, 93-109.
125. **Ryen W. White**, Ian Ruthven, Joemon M. Jose. (2001). Comparing implicit and explicit feedback techniques for web retrieval: TREC-10 interactive track report. *Proc. Text REtrieval Conference*.

REFEREED CONFERENCE POSTERS AND SHORT PAPERS

1. Yonchanok Khaokaew, Mohammad Saiedur Rahaman, **Ryen W. White** and Flora D. Salim. (2021). CoSEM: Contextual and semantic embedding for app usage prediction. *Proc. 30th ACM CIKM Conference on Information and Knowledge Management*, 3137-3141.
2. Chirag Shah and **Ryen W. White**. (2021). Bridging task expressions and search queries. *Proc. 6th ACM SIGIR Conference on Human Information Interaction and Retrieval*, 319-323.
3. Alex C. Williams, Shamsi Iqbal, Julia Kiseleva, and **Ryen W. White**. (2020). Managing tasks across the work-life boundary: Opportunities, challenges, and directions. *Proc. the New Future of Work Symposium*.
4. Elnaz Nouri, Robert Sim, Adam Fourney, and **Ryen W. White**. (2020). Proactive suggestion generation: Data and methods for stepwise task assistance. *Proc. 43rd ACM SIGIR Conference on Research and Development in Information Retrieval*, 1585-1588.
5. Sudipto Mukherjee, Subhabrata Mukherjee, Marcello Hasegawa, Ahmed Awadallah, and **Ryen W. White**. (2020). Smart to-do: Automatic generation of to-do lists from emails. *Proc. Annual Conference of the Association for Computational Linguistics*, in press.
6. **Ryen W. White** and Ryan Ma. (2017). Improving search engines via large-scale physiological sensing. *Proc. 40th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 881-884.
7. Ashiqur KhudaBukhsh, Paul N. Bennett, and **Ryen W. White**. (2015). Building effective query classifiers: A case study in self-harm intent detection. *Proc. 24th ACM International Conference on Information and Knowledge Management*, 1735-1738.
8. Milad Shokouhi, **Ryen W. White**, and Emine Yilmaz. (2015). Anchoring and adjustment in relevance estimation. *Proc. 38th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 963-966.
9. **Ryen W. White**, Matthew Richardson, and Wen-tau Yih (2015). Questions vs. queries in informational search tasks. *Proc. 24th International World Wide Web Conference*, 135-136.
10. Youngho Kim, Ahmed Hassan, **Ryen W. White**, and Imed Zitouni. (2014). Comparing client and server dwell time estimates for click-level satisfaction prediction. *Proc. 37th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 895-898.

11. Adish Singla, **Ryen W. White**, Ahmed Hassan, and Eric Horvitz. (2014). Enhancing personalization via search activity attribution. *Proc. 37th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 1063-1066.
12. Robert West, **Ryen W. White**, and Eric Horvitz. (2013). Here and there: goals, activities, and predictions about location from geotagged queries. *Proc. 36th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 817-820.
13. Shuang-Hong Yang, **Ryen W. White**, and Eric Horvitz. (2013). Pursuing insights about healthcare utilization via geocoded search queries. *Proc. 36th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 993-996.
14. Dmitry Lagun, Peter Bailey, Georg Buscher, Avneesh Sud, and **Ryen W. White**. (2013). Explicit feedback in local search tasks. *Proc. 36th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 1065-1068.
15. Makato Kato, **Ryen W. White**, Jaime Teevan, and Susan Dumais. (2013). Clarifications and question specificity in synchronous social Q&A. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 913-918.
16. Roberto González-Ibáñez, Chirag Shah, and **Ryen W. White**. (2012). Pseudo-collaboration as a method to perform selective algorithmic mediation in collaborative IR systems. *Proc. 75th Annual Meeting of the American Society for Information Science and Technology*, 1-4.
17. **Ryen W. White** and Georg Buscher. (2012). Text selections as implicit relevance feedback. *Proc. 35th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 1151-1152.
18. Dan Liebling, Paul N. Bennett, and **Ryen W. White**. (2012). Anticipatory search: using context to initiate search. *Proc. 35th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 1035-1036.
19. **Ryen W. White** and Matthew Richardson. (2012). Effects of expertise differences in synchronous social Q&A. *Proc. 35th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 1055-1056.
20. Ovi Dan, Pavel Dmitriev, and **Ryen W. White**. (2012). Mining for insights in the search engine query stream. *Proc. 21st International World Wide Web Conference*, 489-490.
21. Jie Tang, **Ryen W. White**, and Peter Bailey. (2011). Recommending interesting activity-related local entities. *Proc. 34th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 1161-1162.
22. **Ryen W. White** and Adish Singla. (2011). Finding our way on the web: exploring the role of waypoints in search interaction. *Proc. 20th International World Wide Web Conference*, 147-148.
23. Peter Bailey, Nick Craswell, **Ryen W. White**, Liwei Chen, Ashwin Satyanarayana, and S.M.M. Tahaghoghi. (2010). Evaluating whole-page relevance. *Proc. 33rd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 767-768.
24. **Ryen W. White** and Eric Horvitz. (2010). Predicting escalations of medical queries based on web page structure and content. *Proc. 33rd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 769-770.
25. **Ryen W. White** and Raman Chandrasekar. (2010). Exploring the use of labels to shortcut search trails. *Proc. 33rd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 811-812.
26. Adish Singla and **Ryen W. White**. (2010). Sampling high-quality clicks from noisy click data. *Proc. 19th International World Wide Web Conference*, 1187-1188.

27. Craig Macdonald and **Ryen W. White**. (2009). Usefulness of click-through data in expert search. *Proc. 32nd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 816-817.
28. m.c. schraefel, **Ryen W. White**, Paul André, and Desney Tan. (2009). Investigating web search strategies and forum use to support diet and weight loss. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 3829-3834.
29. Mikhail Bilenko, **Ryen W. White**, Matthew Richardson, and G. Craig Murray. (2008). Talking the talk vs. walking the walk: salience of information needs in querying vs. browsing. *Proc. 31st Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 705-706.
30. **Ryen W. White**, Susan T. Dumais, and Jaime Teevan. (2008). How medical expertise influences web search interaction. *Proc. 31st Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 791-792.
31. Allison Heath and **Ryen W. White**. (2008). Defection detection: predicting search engine switching. *Proc. 17th International World Wide Web Conference*, 1173-1174.
32. Pavel Ircing, Pavel Pecina, Douglas W. Oard, Jianqiang Wang, and **Ryen W. White**. (2007). Information retrieval test collection for spontaneous conversational speech. *Proc. 10th International Conference on Text, Speech, and Dialog*.
33. **Ryen W. White**, Charles L.A. Clarke, and Silviu Cucerzan. (2007). Comparing query logs and pseudo-relevance feedback for web-search query refinement. *Proc. 30th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 831-832.
34. Silviu Cucerzan and **Ryen W. White**. (2007). Query suggestion based on user landing pages. *Proc. 30th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 875-876.
35. **Ryen W. White** and Gary Marchionini. (2006). A study of real-time query expansion effectiveness. *Proc. 29th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 715-716.
36. Zvi Band and **Ryen W. White**. (2006). PygmyBrowse: A small screen tree browser. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 514-519.
37. Xiaoli Huang and **Ryen W. White**. (2005). Policy capturing models for multi-faceted relevance assessments. *Proc. 68th Annual Meeting of the American Society for Information Science and Technology*.
38. Wilma Bainbridge, **Ryen W. White**, and Douglas W. Oard. (2005). An interface to search human movements based on geographic and chronological metadata. *Proc. 28th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 579-580.
39. **Ryen W. White** and Joemon M. Jose. (2004). A study of topic similarity measures. *Proc. 27th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 520-521.
40. **Ryen W. White**. (2004). A visualisation technique to communicate implicit feedback decisions. *Proc. 26th Annual European Conference on Information Retrieval*.
41. **Ryen W. White**, Joemon M. Jose, and Ian Ruthven. (2003). An approach for implicitly detecting information needs. *Proc. 12th International Conference on Information and Knowledge Management*, 504-507.
42. **Ryen W. White**, Joemon M. Jose, and Ian Ruthven. (2003). Adapting to evolving needs: evaluating a behaviour-based search interface. *Proc. 17th Annual Human-Computer Interaction Conference*.
43. **Ryen W. White**, Joemon M. Jose, and Ian Ruthven. (2003). Using top-ranking sentences for web search result presentation. *Proc. 12th International World Wide Web Conference*.

44. **Ryen W. White**, Joemon M. Jose, and Ian Ruthven. (2001). Query-biased web page summarisation: a task-oriented evaluation. *Proc. 24th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 412-413.

WORKSHOP PAPERS

1. Jonathan Liono, Johanne R. Trippas, Damiano Spina, Mohammad S. Rahaman, Yongli Ren, Flora D. Salim, Mark Sanderson, Falk Scholer, and **Ryen W. White**. (2019). Building a benchmark for task progress in digital assistants. *Proc. WSDM 2019 Workshop on Task Intelligence*.
2. Elnaz Nouri, Adam Fourney, Robert Sim, and **Ryen W. White**. (2019). Supporting complex tasks using multiple devices. *Proc. WSDM 2019 Workshop on Task Intelligence*.
3. Adish Singla, Eric Horvitz, Pushmeet Kohli, **Ryen W. White**, and Andreas Krause. (2014). Building collaborative teams: A local navigation-based approach. *Proc. NIPS 2014 Workshop on Crowdsourcing and Machine Learning*.
4. David Sontag, Kevyn Collins-Thompson, Paul Bennett, **Ryen W. White**, Susan Dumais, and Bodo Billerbeck. (2013). Personalization via probabilistic adaptation. *Proc. NIPS 2013 Workshop on Personalization*.
5. Alan Haggerty, **Ryen W. White**, Joemon M. Jose. (2003). NewsFlash: adaptive TV news delivery on the web. *Proc. 1st International Workshop on Adaptive Multimedia Retrieval (AMR 2003, part of KI 2003)*.
6. **Ryen W. White**, Ian Ruthven, and Joemon M. Jose. (2001). Web document summarisation: a task-oriented evaluation. *Proc. 1st International Workshop on Digital Libraries (DLib 2001, part of DEXA 2001)*.

PANELS

1. m.c. schraefel, Paul André, **Ryen W. White**, Desney Tan, Tim Berners-Lee, Sunny Consolvo, Robert Jacobs, Christopher A La Dantec, Gary Marsden, Ben Shneiderman, and Daniel Weitzner. (2009). Interacting with eHealth. *Proc. ACM SIGCHI Conference on Human Factors in Computing Systems*, 3309-3312.

DEMONSTRATIONS

1. Alexandra Vtyurina, Adam Fourney, Meredith Ringel Morris, Leah Findlater, and **Ryen W. White**. (2019). Bridging screen readers and voice assistants for enhanced eyes-free web search. *Proc. The Web Conference*, 3590-3594.
2. **Ryen W. White** and Joemon M. Jose. (2004). An implicit system for predicting interests. *Proc. 27th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 595.
3. **Ryen W. White**, Joemon M. Jose, and Ian Ruthven. (2002). A system using implicit feedback and top-ranking sentences to help users find relevant web documents. *Proc. 25th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, 446.

DISSERTATION

1. **Ryen W. White**. (2004). *Implicit Feedback for Interactive Information Retrieval*. Unpublished Doctoral Dissertation, Department of Computing Science, University of Glasgow, Glasgow, UK. [DISTINGUISHED DISSERTATION AWARD – BRITISH COMPUTER SOCIETY / COUNCIL OF PROFESSORS AND HEADS OF COMPUTING].

BOOK REVIEWS

1. **Ryen W. White.** (2006). "Information Retrieval Design" by James Anderson and Jose Perez-Carballo. *Journal of the American Society for Information Science and Technology*, 57(10): 1412-1413.

OTHER PUBLICATIONS

1. Chirag Shah and **Ryen W. White.** (2023). Report on the workshop on task focused IR in the era of generative AI. *SIGIR Forum*, 57(2).
2. **Ryen W. White.** (2023). Tasks, copilots, and the future of search: A keynote at SIGIR 2023. *SIGIR Forum*, 57(2).
3. **Ryen W. White.** (2020). Announcement and call for nominations: ACM SIGIR academy. *SIGIR Forum*, 54(1), 1-2.
4. Ahmed Hassan Awadallah, Cathal Gurrin, Mark Sanderson, and **Ryen W. White.** (2019). Task intelligence workshop at WSDM 2019. *Proc. 12th Annual International ACM WSDM Conference on Web Search and Data Mining*, 848-849.
5. **Ryen W. White.** (2018). Perspectives from a new editor-in-chief of a computer science journal. *Science Editor*, 41(2): 45-47.
6. Nick Ghotbi and **Ryen W. White.** (2018). Building breakthrough products using AI research. *Microsoft Research Technical Report (MSR-TR-2018-21)*.
7. Robert Capra, Luanne Freund, Catherine L. Smith, Mark D. Smucker, and **Ryen W. White.** (2013). HCIR 2013: The Seventh International Symposium on Human-Computer Interaction and Information Retrieval. *SIGIR Forum*, 47(2).
8. **Ryen W. White**, Elad Yom-Tov, Eric Horvitz, Eugene Agichtein, and William Hersh. (2013). Report on SIGIR 2013 workshop on health search and discovery. *SIGIR Forum*, 47(2).
9. Daniel Tunkelang, Robert Capra, Gene Golovchinsky, Bill Kules, Catherine L. Smith, and **Ryen W. White.** (2012). Symposium on human-computer information retrieval. *Big Data*, 1(1): 65-70.
10. Robert Capra, Gene Golovchinsky, Bill Kules, Catherine L. Smith, Daniel Tunkelang, and Ryen W. White. (2012). HCIR 2012: The sixth international symposium on human-computer interaction and information retrieval. *SIGIR Forum*, 46(2): 42-49.
11. Robert Capra, Gene Golovchinsky, Bill Kules, Dan Russell, Catherine L. Smith, Daniel Tunkelang, and **Ryen W. White.** (2011). HCIR 2011: The fifth international workshop on human-computer interaction and information retrieval. *SIGIR Forum*, 45(2): 102-106.
12. Robert Capra, Bill Kules, Catherine L. Smith, Daniel Tunkelang, and **Ryen W. White.** (2010). HCIR 2010: The fourth international workshop on human-computer interaction and information retrieval. *SIGIR Forum*, 44(2): 73-77.
13. Bill Kules, Daniel Tunkelang, and **Ryen W. White.** (2009). HCIR 2009: The third international workshop on human-computer interaction and information retrieval. *SIGIR Forum*, 43(2): 83-87.
14. **Ryen W. White** and Eric Horvitz. (2008). Cyberchondria: studies of the escalation of medical concerns in web search. *Microsoft Research Technical Report (MSR-TR-2008-178)*.
15. Kerry Rodden, Ian Ruthven, and **Ryen W. White.** (2007). Report on ACM SIGIR 2007 workshop on web information seeking and interaction. *SIGIR Forum*, 41(2): 63-67.
16. **Ryen W. White**, Gheorghe Muresan, and Gary Marchionini. (2006). Report on ACM SIGIR 2006 workshop on evaluating exploratory search systems. *SIGIR Forum*, 40(2): 52-60.
17. **Ryen W. White**, Bill Kules, and Ben Bederson. (2005). Exploratory search interfaces: categorization, clustering and beyond. *SIGIR Forum*, 39(2): 52-56.

Patents Granted (Inventor name order not meaningful)

1. **Ryen W. White** and Dan S. Morris. Identification and use of web searcher expertise. U.S. Patent 7996400 (Filed: 2007, Granted: 2011).
2. Nick E Craswell, Hugh E. Williams, **Ryen W. White**, Michael M. Cameron, and Mikhail Bilenko. Using search trails to provide enhanced search interaction. U.S. Patent 7774339 (Filed: 2007, Granted: 2010).
3. Steven M. Drucker, Eric D. Brill, Chris J.C. Burges, and **Ryen W. White**. Accounting for behavioral variability in web search. U.S. Patent 7743047 (Filed: 2007, Granted: 2010).
- 4-5. Robert L. Rounthwaite, Eric D. Brill, Chris J.C. Burges, **Ryen W. White**, and Allison P. Heath. Predicting and using search engine switching behavior. U.S. Patents 7984000, 8185484 (Filed: 2007, Granted: 2011).
6. Srivatsan Laxman, **Ryen W. White**, and Vikram M. Tankasali. Future data event prediction using a generative model. U.S. Patent 8126891 (Filed: 2008, Granted: 2012).
7. Robert Rounthwaite, Scott Imig, John Larcheveque, Silviu-Petru Cucerzan, Kenneth Church, **Ryen W. White**, Sam Paye, and Emily Pitler. Contextual query suggestion in result pages. U.S. Patent 8275759 (Filed: 2009, Granted: 2012).
8. Eric Brill, Matthew Richardson, and **Ryen W. White**. Balanced routing of questions to experts. U.S. Patent 8751559 (Filed 2008: Granted: 2014).
9. Kevyn Collins-Thompson, **Ryen W. White**, David Sontag, Paul Bennett, and Susan Dumais. Functionality for personalizing search results. U.S. Patent 8700544 (Filed: 2011, Granted: 2014).
10. Kevyn Collins-Thompson, Paul Bennett, **Ryen W. White**, Sebastian de la Chica, and David Sontag. Using reading levels in responding to requests. U.S. Patent 8954423 (Filed: 2011, Granted: 2015).
- 11-14. **Ryen W. White**, Jaime Teevan, and Susan Dumais. Domain expertise determination. U.S. Patents 8122021, 8402024, 8930357, 9268864 (Filed: 2009, Granted: 2012, 2015, 2016).
15. Allison Heath, **Ryen W. White**, Chris J.C. Burges, Eric Brill, and Robert Rounthwaite. Predicting and using search engine switching behavior. U.S. Patent 8185484 (Filed: 2007, Granted: 2014).
16. Milad Shokouhi, **Ryen W. White**, and Paul Bennett. Ranking search results using result repetition. U.S. Patent 9064016 (Filed: 2011, Granted: 2015).
17. Paul Bennett, Filip Radlinski, **Ryen W. White**, and Emine Yilmaz. Using aggregate location metadata to provide a personalized service. (Filed: 2011, Granted: 2014).
18. **Ryen W. White**, Robert Rounthwaite, and Silviu Cucerzan. Suggesting related search queries during web browsing. U.S. Patent 9015148 (Filed: 2009, Granted: 2014).
19. Eric Horvitz and **Ryen W. White**. Predicting escalation events during information searching and browsing. U.S. Patent 9015081 (Filed: 2010, Granted: 2014).
20. Elad Yom-Tov, Eric J. Horvitz, **Ryen W. White**, Munmun De Choudhury, and Scott J. Counts. User behavior monitoring on a computerized device. U.S. Patent 9427185 (Filed: 2013, Granted: 2014).
21. Allison P. Heath, **Ryen W. White**, Christopher J.C. Burges, Eric D. Brill, and Robert L. Rounthwaite. Technologies for encouraging search engine switching based on behavior patterns. U.S. Patent 9031885 (Filed: 2012, Granted: 2015).
22. Paul N. Bennett, **Ryen W. White**, Milad Shokouhi, and Filip Radlinski. Ranking search results using result repetition. U.S. Patent 9064016 (Filed: 2013, Granted: 2015).
23. Timothy Edgar, Ambarish Chitnis, **Ryen W. White**, Pavel Dmitriev, RajaniKanth Ageeru, Lin Tang, and Ovi Dan. Query refinement in a browser toolbar. U.S. Patent 9189550 (Filed: 2011, Granted: 2015).
24. Scott Imig, Robert Rounthwaite, Matthew Richardson, and **Ryen W. White**. Identifying a discussion topic based on user interest information. U.S. Patent 9195739 (Filed: 2008, Granted: 2015).
25. **Ryen W. White**, Xiao Huang, Yu Wang, An Yan, and Zijian Zheng. Task completion. U.S. Patent 9378456 (Filed: 2012, Granted: 2016).

26. Elad Yom-Tov, Eric Horvitz, **Ryen W. White**, Munmun De Choudhury, and Scott Counts. User behavior monitoring on a computerized device. U.S. Patent 9427185 (Filed: 2013, Granted: 2016).
27. Andre Furtado, Robert Rounthwaite, Xiaohan Shi, Matthew Richardson, **Ryen W. White**, Syed Fahad Allam Shah, and Shantanu Sharma. Role-specific device behavior (Filed: 2015, Granted: 2017).
28. **Ryen W. White**, Ahmed Hassan, Adish Singla, and Eric Horvitz. Attribution of activity in multi-user settings. U.S. Patent 9818065 (Filed: 2013, Granted: 2017).
29. Eric Horvitz, Ahmed Hassan, and **Ryen W. White**. Compensating for bias in search results. U.S. Patent 10007730 (Filed: 2015, Granted: 2018).
30. Eric Horvitz, Ahmed Hassan, and **Ryen W. White**. Compensating for individualized bias of search users U.S. Patent 10007719 (Filed: 2015, Granted: 2018).
31. Gabriel A. DesGarennes and **Ryen W. White**. Emergency alerting system and method. U.S. Patent 10037668 (Filed: 2017, Granted: 2018).
32. Ahmed Hassan Awadallah, Yi-Min Wang, and **Ryen W. White**. Identifying dissatisfaction segments in connection with improving search engine performance. U.S. Patent 10108704 (Filed: 2014, Granted: 2018).
33. Adish Singla, Eric Horvitz, Ece Kamar, and **Ryen W. White**. Stochastic privacy. U.S. Patent 10133878 (Filed: 2014, Granted: 2018).
34. Andre Furtado, Syed Fahad Allam Shah, Shantanu Sharma, **Ryen W. White**, Matthew Richardson, and Robert Rounthwaite. Role-specific service customization. U.S. Patent 10171472 (Filed: 2016, Granted: 2019).
35. Paul Bennett, Nirupama Chandrasekaran, Michael Gamon, Nikrouz Ghotbi, Eric Horvitz, Richard Hughes, Prabhdeep Singh, and **Ryen W. White**. Automatic extraction of commitments and requests from communications and content. U.S. Patent 10361981 (Filed: 2016, Granted: 2019).
36. Nirupama Chandrasekaran, Robert A. Sim, **Ryen W. White**, and Nikrouz Ghotbi. Empathetic personal virtual digital assistant. U.S. Patent 10522143 (Filed: 2018, Granted: 2019).
37. **Ryen W. White** and R. Allen Herring. Proximity-based engagement with digital assistants. U.S. Patent 10540977 (Filed: 2018, Granted: 2020).
38. Tim Althoff, Eric Horvitz, and **Ryen W. White**. Sleep monitoring from implicitly collected computer interactions. U.S. Patent 10559387 (Filed: 2017, Granted: 2020).
- 39-40. Adam Fourney, Paul N. Bennett, **Ryen W. White**, Eric Horvitz, Xin Rong, and David Graus. System for interpreting and managing imprecise temporal expressions. U.S. Patents 10719757, 11562199 (Filed: 2016, Granted: 2020, 2023).
41. Nikrouz Ghotbi and **Ryen W. White**. Identification and notification of correctness and contradiction in communications. U.S. Patent 10726209 (Filed: 2017, Granted: 2020).
42. Jessica Lundin, **Ryen W. White**, Kris K. Ganjam, Navendu Jain, and Hua He. Domain review system for identifying entity relationships and corresponding insights. U.S. Patent 10706113 (Filed: 2017, Granted: 2020).
- 43-44. R. Allen Herring, Adam Fourney, **Ryen W. White**, and Paul N. Bennett. Computerized task guidance across devices and applications. U.S. Patents 10747560, 11080073 (Filed: 2018, Granted: 2020, 2021).
45. **Ryen W. White**, Mathieu Audouin, Patrick Pantel, Nikrouz Ghotbi, Anantha Deepthi Uppala, Vanessa Murdock, Mark Encarnación, and Nirupama Chandrasekaran. Automated quick task notifications via an audio channel. U.S. Patent 10818287 (Filed: 2018, Granted: 2020).
46. **Ryen W. White**, Ahmed Awadallah, and Eric Horvitz. Compensating for bias in search results. U.S. Patent 10936676 (Filed: 2015, Granted: 2021).
47. Robert Sim, Marcello Hasegawa, **Ryen W. White**, Mudit Jain, Tomer Hermelin, Adi Rosenthal, and Sagi Hilleli. Computer support for meetings. U.S. Patent 11113672 (Filed: 2018, Granted: 2021).

48. **Ryen W. White**, Peter Bailey, and Mathieu Audouin. Situational message deferral. U.S. Patent 11196689 (Filed: 2018, Granted: 2021).
49. **Ryen W. White**, Andrew D. Wilson, Gregg R. Wygonik, Nirupama Chandrasekaran, and Sean E. Andrist. Non-verbal engagement of a digital assistant. U.S. Patent 11221669 (Filed: 2017, Granted: 2022).
50. Nikrouz Ghotbi and **Ryen W. White**. Contextually inferred talking points for improved communication. U.S. Patent 11307764 (Filed: 2017, Granted: 2022).
51. Robert A. Sim, **Ryen W. White**, Omar Shaya, Bernd I. Plontsch, and Elnaz Nouri. Semi-autonomous intelligent task hub. U.S. Patent 11416290 (Filed: 2020, Granted: 2022).
52. Robert A. Sim, Adam Fourney, R. Allen Herring, **Ryen W. White**, and Elnaz Nouri. User interaction and task management using multiple devices. U.S. Patent 11438435 (Filed: 2019, Granted: 2022).
53. Niyathi N. Chakrapani, Mark J. Encarnacion, Silviu-Petru Cucerzan, James S. Woffinden-Luey, **Ryen W. White**, and Bernhard S.J. Kohlmeier. Content frames for productivity applications. U.S. Patent 11468228 (Filed: 2021, Granted: 2022).
- 54-55. Ahmed Hassan Awadallah, Miaosen Wang, **Ryen W. White**, and Yu Su. Natural language to API conversion. U.S. Patent 11474836 (Filed: 2018, Granted: 2022); U.S. Patent 11842205 (Filed: 2022, Granted: 2023).
56. Fernando Diaz, **Ryen W. White**, and Qi Guo. Prefetching using dynamic user model to reduce latency. U.S. Patent 11526521 (Filed: 2016, Granted: 2022).
57. Elnaz Nouri and **Ryen W. White**. Automatically controlling participant indication request for a virtual meeting. U.S. Patent 11558212 (Filed: 2021, Granted: 2023).
58. Ajoy Nandi, Jason T. Creighton, Nikrouz Ghotbi, and **Ryen W. White**. Identifying task assignments. U.S. Patent 11568337 (Filed: 2017, Granted: 2023).
59. **Ryen W. White** and Girish S. Nathan. Federated intelligent assistance. U.S. Patent 11631017 (Filed: 2019, Granted: 2023).
60. Robert A. Sim, **Ryen W. White**, and Hosein Azarbondyad. Task detection in communications using domain adaptation. U.S. Patent 11704552 (Filed: 2018, Granted: 2023).
61. Vanessa Murdock, R. Allen Herring, Nirupama Chandrasekaran, Robert A. Sim, and **Ryen W. White**. Location-based task suggestions. U.S. Patent 11741406 (Filed: 2018, Granted: 2023).
62. **Ryen W. White**, Omar Shaya, Kevin M. Carter, Yongli Ren, Jonathan Liono, and Flora D. Salim. Scheduling tasks based on cyber-physical-social contexts. U.S. Patent 11741437 (Filed: 2020, Granted: 2023).
63. **Ryen W. White**. Eye contact assistance in video conference. U.S. Patent 11843469 (Filed: 2022, Granted: 2023).
64. **Ryen W. White** and Peter Bailey. Contextual messaging in video conference. U.S. Patent 11848900 (Filed: 2021, Granted: 2023).