

# Bogeum Choi

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## EDUCATION

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**University of North Carolina**, Chapel Hill, NC

Ph.D. Student, Information Science, 2018 – Present

M.S. in Information Science, 2018

**Sungkyunkwan University**, Seoul, Republic of Korea

B.A. in Information and Library Science and B.S. in Psychology, 2016

## RESEARCH INTERESTS

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My research interests lie primarily in the fields of human information behavior and human computer interaction. My research topic includes: (1) how people search and make use of information in various contexts (e.g., procedural task, health management); (2) how people interact with information systems (e.g., mixed-initiative conversational system) and tools (e.g., note-taking tool); and (3) key factors affecting information behavior such as cognitive ability, task complexity, and modality (i.e., spoken vs. written query). I leverage both qualitative and quantitative approaches to investigating these issues.

## SELECTED PUBLICATIONS

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**Choi, B.**, Castell, S., Capra, R., & Arguello, J. (2022, Preprint). Procedural Knowledge Search by Intelligence Analysts. *Conference on Human Information Interaction and Retrieval*

Avula, S., **Choi, B.**, & Arguello, J. (2022, Preprint). The Effects of System Initiative during Conversational Collaborative Search. *Computer supported cooperative work (CSCW)*

**Choi, B.**, Kim, H., & Huh-Yoo, J. (2021). Seeking Mental Health Support Among College Students in Video-Based Social Media: Content and Statistical Analysis of YouTube Videos. *JMIR Formative Research*, 5(11)

**Choi, B.**, Arguello, J., Capra, R., & Ward, A. R. (2021). OrgBox: A Knowledge Representation Tool to Support Complex Search Tasks. In *Proceedings of the 2021 Conference on Human Information Interaction and Retrieval* (pp. 219-228).

**Choi, B.**, & Arguello, J. (2020). A Qualitative Analysis of the Effects of Task Complexity on the Functional Role of Information. In *Proceedings of the 2020 Conference on Human Information Interaction and Retrieval* (pp. 328-332).

**Choi, B.**, Ward, A., Li, Y., Arguello, J., & Capra, R. (2019). The Effects of Task Complexity on the Use of Different Types of Information in a Search Assistance Tool. *ACM Transactions on Information Systems (TOIS)*, 38(1), 1-28

**Choi, B.**, Capra, R., & Arguello, J. (2019). The effects of working memory during search tasks of varying complexity. In *Proceedings of the 2019 Conference on Human Information Interaction and Retrieval* (pp. 261-265).

Capra, R., Arguello, J., O'Brien, H., Li, Y., & **Choi, B.** (2018, June). The effects of manipulating task determinability on search behaviors and outcomes. In *The 41st International ACM SIGIR Conference on Research & Development in Information Retrieval* (pp. 445-454).

## RESEARCH EXPERIENCE *(All projects resulted in a manuscript for publication)*

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### How people search procedural knowledge

- Currently analyzing qualitative survey data collected from the Amazon Mechanical Turk (n=160)
- Conducted a remote user study (n=36) and analyzed qualitative data (screen activities with think-aloud comments) to investigate how people search during procedural tasks

### **Mixed-initiative interactions between a conversational agent and human collaborators**

- Conducted qualitative analyses of interview data (with the human collaborators as well as a human intermediary who played the role of a conversational agent); identified perceived benefits and challenges of different levels of system initiative; and explored the action space of an agent

### **The use of a knowledge representation tool during complex search tasks**

- Designed and conducted a lab-based user study (n=32); analyzed post-task survey and interview data to examine the perceived benefits and challenges of the tool as well as its effect on users' perceptions of their task performance and their approach to the task

### **Exploring the potential of mental health videos on YouTube**

- Conducted user engagement analysis and content analysis to explore the potential ways user-generated content on YouTube videos can support college students' mental health

### **Investigation of "functional roles" of information**

- Collected and analyzed quantitative (how frequently the information was sought) as well as qualitative (participants' comments regarding the information was useful) data to characterize the functional roles different types of information can serve during search tasks of varying complexity

### **The effect of working memory and task complexity on information search**

- Designed and conducted a lab-based user study (n=24); analyzed quantitative data (i.e., interaction measures and quantitative survey data)

### **Comparative examination of credibility factors of health information on social media**

- Led a qualitative analysis (inductive and deductive) to identify credibility factors (i.e., platform-general vs. platform-specific) of health information on social media using 1,000 data instances

## **RESEARCH SKILLS**

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- Qualitative: interview, think-aloud protocol, video recording, cognitive task analysis, content analysis, thematic analysis

- Quantitative: lab-based experiment, survey, statistical analysis

- Tools: Qualtrics, TechSmith Morae, Camtasia, Eye-Tracking, SPSS, R, and Python

## **AWARD & FELLOWSHIP**

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SIGIR Student Travel Grant (2019; 2020; 2021)

UNC-SILS/Carnegie Research Grant (2018)

SKKU Global Humanities Scholarship (2014)