

# Lisa Orie

Ph.D. Student in Computer Science & Engineering  
Human-Computer Interaction, Information and Communication Technologies for Development

Paul G. Allen School of Computer Science & Engineering  
University of Washington, Seattle, WA, USA

[lisaorie@cs.washington.edu](mailto:lisaorie@cs.washington.edu) / 781.666.7120  
[lisaorie.github.io](https://lisaorie.github.io)

## Research Interests

---

My research examines and evaluates mobile health (mHealth) for healthcare delivery in low- and middle-income countries (LMICs). I apply frameworks and methods from human-computer interaction to support mHealth interventions that can integrate into existing health systems. I closely collaborate with health researchers, researchers from LMICs, and Ministries of Health to prioritize the needs of local people and addressing local challenges. I am interested in examining all phases of maturity of mHealth interventions, from pre-prototyping to deployment.

## Education

---

### University of Washington (UW)

Ph.D. in Computer Science & Engineering  
Advisor: Professor Richard Anderson

*Sept 2021 – Aug 2026 (Expected)*

### Wellesley College

B.A. in Computer Science and Philosophy  
Advisor: Professor Orit Shaer  
*Magna Cum Laude, Phi Beta Kappa, Sigma Xi*

*Sept 2017 – June 2021*

### University of Oxford Worcester College

Visiting student in Computer Science and Philosophy

*Sept 2019 – Dec 2019*

## Publications

---

### Peer-Reviewed Publications

1. **Lisa Orie**, Caryl Feldacker, Jacqueline Madalitso Huwa, Agness Thawani, Evelyn Viola, Christine Kiruthu-Kamamia, Odala Sande, Hannock Tweya, and Richard Anderson. 2024. HIV Client Perspectives on Digital Health in Malawi. In *Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24)*, May 11–16, 2024, Honolulu, HI, USA. ACM, New York, NY, USA, 13 pages. <https://doi.org/10.1145/3613904.3642245>
2. **Lisa Orie**, Caryl Feldacker, Hannock Tweya, Richard Anderson. eHealth Data Security and Privacy: Perspectives from Diverse Stakeholders in Malawi. To appear in *Proc. ACM Hum.-Comput. Interact.* 8, CSCW1, Article 46 (April 2024), 26 pages. <https://doi.org/10.1145/3637323>
3. **Lisa Orie**, Nami Ogawa, Yuji Hatada, and Takuji Narumi. 2022. Designing for Speech Practice Systems: How Do User-Controlled Voice Manipulation and Model Speakers Impact Self-Perceptions of Voice? In *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI '22)*. Association for Computing Machinery, New York, NY, USA, Article 56, 1–14. <https://doi.org/10.1145/3491102.3502093>
4. **Lisa Orie**, Diana Tosca, Andrew L Kun, and Orit Shaer. 2021. Perceptions of Trucking Automation: Insights from the r/Truckers Community. In *13th International Conference on Automotive User Interfaces and Interactive Vehicular Applications (AutomotiveUI '21)*. Association for Computing Machinery, New York, NY, USA, 137–146. <https://doi.org/10.1145/3409118.3475154>

5. **Lisa Orii**, Diana Tosca, Andrew L Kun, and Orit Shaer. 2021. Perceptions on the Future of Automation in r/Truckers. In *Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems (CHI EA '21)*. Association for Computing Machinery, New York, NY, USA, Article 311, 1–6.  
<https://doi.org/10.1145/3411763.3451637>
6. **Lisa Orii**, Luis Alonso, Kent Larson. Methodology for Establishing Well-Being Urban Indicators at the District Level to be used on the CityScope Platform. *Sustainability* 2020, 12, 9458.
7. Di Jin, Zhijing Jin, Joey Tianyi Zhou, **Lisa Orii**, and Peter Szolovits. Hooks in the Headline: Learning to Generate Headlines with Controlled Styles. In *Proceedings of the 58<sup>th</sup> Annual Meeting of the Association for Computational Linguistics (ACL 2020)*.

## Other

1. Danielle Wood, Fohla Mouftaou, Temilola Fatoyinbo, David Lagomasino, Ufuoma Ovienmhada, Eric Ashcroft, Lelia Hampton, **Lisa Orii**, TojumiOluwa Adegboyega, Anisha Nakagawa and Julliet Wanyiri. (2019, December). Co-Designing an Environmental Observatory to Support Eco-Entrepreneurship in Benin. In *AGU Fall Meeting Abstracts* (Vol. 2019, pp. GC53B-01).

## Under Review

1. **Lisa Orii**, Kate S. Wilson, Jacqueline Huwa, Christine Kiruthu-Kamamia, Odala Sande, Agness Thawani, Astrid Berner-Rodoreda, Evelyn Viola, Hannock Tweya, Petros Tembo, Wapu Masambuka, Richard Anderson, & Caryl Feldacker. “They provide the right kind of support.” A qualitative study of preferences for differentiated service delivery location among recipients of antiretroviral therapy at Lighthouse Trust in Lilongwe Malawi. Under review at *PLOS ONE*.

## Selected Research Projects

---

Research methods in **blue**. Programming languages and frameworks are in **orange**.

### Strengthening Digital Health Systems for Small and Sick Newborns

Apr 2024 – Present

Research Intern at PATH

Advisors: Linda Taylor, Dr. Kiersten Israel-Ballard, Kimberly Mansen

Developing a digital adaptation kit (DAK) for newborn nutrition, maternal lactation and human milk banking using the WHO’s DAK Framework.

Methods and Tools: **Human-Centered Design**, **Literature Review**

### Mobile App for Expanding Contraceptive Choice in Kenya

Oct 2023 – Present

Graduate Research Assistant

Advisors: Professor Richard Anderson (UW CSE) & Professor Elizabeth Harrington (UW Dept. of Global Health)

Leading the development of a mobile app for Kenyan adolescent girls and young women to provide contraceptive education and decision support. Directing an app development team of 5 undergraduates.

Methods and Tools: **Human-Centered Design**, **Literature Review**, **Flutter**, **Dart**

### USSD Transaction Failures in Nigeria

Sept 2023 – Present

Graduate Research Assistant

Advisor: Professor Richard Anderson (UW CSE)

Designing a longitudinal repeated measures study to examine USSD reliability in Nigeria, in collaboration with the DFS Lab.

Methods and Tools: **Study Design** (ideation, recruitment planning, ethics approval), **Quantitative Methods**

### Electronic HIV Data Security and Privacy in Malawi

May 2022 – Present

Graduate Research Assistant

Advisors: Professor Richard Anderson (UW CSE) & Professor Caryl Feldacker (UW Dept. of Global Health)

Leading the investigation of gaps and opportunities in the security of an open-source mobile medical record system used at a HIV care program in Malawi. Developed interview guides with local researchers and conducted interviews and focus group discussions with healthcare professionals, Ministry of Health officials, and HIV clients to illuminate key data security issues. Through discussion with Malawian researchers, we developed policy and practice improvements for data security and privacy.

Methods and Tools: [Study Design](#) (ideation, ethics approval, implementation, publication writing and submission), [Fieldwork](#), [Key Informant Interviews](#), [Focus Group Discussions](#), [Thematic Analysis](#), [ATLAS.ti](#)

### **Designs for Recording and Sharing Menopause Experiences Across Generations**

Jan 2022 – Oct 2023

*Graduate Research Assistant*

*Advisor: Professor James Fogarty (UW CSE)*

Proposed designs and guidelines for recording and sharing menopause experiences across generations and within families.

Methods and Tools: [Study Design](#) (ideation, ethics approval, implementation, publication writing and submission), [Semi-Structured Interviews](#), [Co-Design Sessions](#), [Thematic Analysis](#)

### **Sidewalks and Socio-Demographics**

Sept 2021 – Dec 2021

*Graduate Research Assistant*

*Advisor: Professor Jon Froehlich (UW CSE)*

Mapped sidewalk presence and quality to geographic regions. Examined correlations between sidewalk characteristics and socio-demographics.

Methods and Tools: [Python](#)

### **Speech Practice Systems to Improve Self-Perceptions**

Apr 2020 – May 2022

*Undergraduate Research Assistant*

*Advisor: Professor Takuji Narumi (University of Tokyo)*

Led the investigation of the impact of listening to speech role models and voice manipulation on the self-perception of voice. Designed and executed usability study with 18 participants.

Methods and Tools: [Study Design](#) (ideation, ethics approval, implementation, publication writing and submission), [Semi-Structured Interviews](#), [Usability Study](#), [Mixed-Methods Analysis](#), [Prototyping](#), [HTML/CSS/JavaScript](#), [R](#)

### **Truck Drivers' Perspectives on Automation**

Sept 2020 – July 2021

*Undergraduate Research Assistant*

*Advisor: Professor Orit Shaer (Wellesley College)*

Led a project that analyzed the perspective of truck drivers on automation in the trucking industry. Collected Reddit posts written by truck drivers and conducted analysis.

Methods and Tools: [Study Design](#) (ideation, implementation, publication writing and submission), [Thematic Analysis](#), [Python](#)

### **Developing an Urban Well-Being Index**

Jan 2020 – Dec 2020

*Undergraduate Research Assistant*

*Advisor: Dr. Luis Alonso (MIT Media Lab)*

Led the formulation of an urban metric that predicted well-being in urban environments.

Methods and Tools: [Study Design](#) (ideation, implementation, publication writing and submission), [Literature Review](#)

### **Designing a Low-Cost Kit for Ecosystem Monitoring**

Feb 2019 – Aug 2019

*Undergraduate Research Assistant*

*Advisor: Dr. Danielle Wood (MIT Media Lab)*

Designed and engineered a sensor kit that monitored the health ecosystem in Benin with low-cost sensors, wireless data transmission, and rechargeable solar battery. Mapped vegetation growth of an invasive plant species in Benin to predict future growth.

Methods and Tools: [Arduino](#), [C++](#), [Geographic Information System Mapping \(ArcGIS\)](#), [Python](#)

## **Grants, Awards, Funding**

---

### **Horton-Hallowell Fellowship**

2024 – 2025

Awarded graduate studies fellowship from Wellesley College Graduate Fellowships.

---

**“Co-Design of a Mobile App to Support Person-Centered Contraceptive Decision Support among Adolescent Girls and Young Women in Kenya in the Pharmacy Setting.”**

*Jan 2024 – Feb 2025*

Received grant from UW’s Global Innovation Fund.

**Quad Fellowship**

*2022 – 2023*

Selected into the inaugural cohort as a representative from Japan. Awarded fellowship to support graduate studies.

**MIT Technology Review’s Innovators Under 35 Japan**

*2022*

Awarded for research examining technologies used for healthcare delivery in LMICs.

**Funai Overseas Scholarship**

*2020 – 2023*

Awarded Japanese Ph.D. fellowship that covers tuition, insurance, and living expenses for 2 years.

**Grace Hopper Celebration 2020 Scholarship**

*2020*

Awarded to attend conference for women in tech.

**Japan Student Services Organization (JASSO) Scholarship**

*2017 – 2021*

Awarded Japanese scholarship to pursue undergraduate studies in the U.S. for 4 years.

**Grew Bancroft Foundation Scholarship**

*2017 – 2021*

Awarded Japanese scholarship to study at an American liberal arts college for 4 years.

**Kanazawa Iwao Memorial Foundation Scholarship**

*2017*

Awarded Japanese scholarship to pursue undergraduate studies in the U.S. for 1 year.

---

## Teaching

**Graduate Teaching Assistant**, University of Washington

Courses: Human-Computer Interaction (Win 2024), Capstone Software Design to Empower Underserved Populations (Spr 2024)

**Undergraduate Teaching Assistant**, Wellesley College

Courses: Human-Automation Interaction (Spr 2021), Human-Computer Interaction (Spr 2021), Calculus II (Spr 2018)

---

## Mentorship

**Khushi Khandelwal**: Senior thesis, Mobile App for Expanding Contraceptive Choice in Kenya

**Ariel Fu**: Mobile App for Expanding Contraceptive Choice in Kenya

**Sandy Cheng**: Mobile App for Expanding Contraceptive Choice in Kenya

**Shrimayee Narasimhan**: Mobile App for Expanding Contraceptive Choice in Kenya

**Shobhit Srivastava**: Mobile App for Expanding Contraceptive Choice in Kenya

---

## Academic Service

**Reviewing**

Proceedings of the ACM on Human-Computer Interaction (PACM HCI), CSCW  
ACM CHI Conference on Human Factors in Computing Systems (CHI)

*2023 – Present*

*2023 – Present*

**Organization**

UW CSE Prospective Student Committee Co-Chair

*2023 – Present*

UW Pre-Application Mentorship Service Volunteer

*2023 – Present*

UW Change Seminar Co-Organizer

*2022 – Present*

UW ICTD Seminar Co-Organizer

2022 – Present

### Conference Volunteering

ICTD 2022 Student Volunteer Chair

2022

ACM COMPASS 2022 Student Volunteer

2022

Automotive UI 2021 Student Volunteer

2021

## Volunteering

---

### **Parasaiyo** *Japan, The Philippines*

May 2015 – Present

Supporting orphanage in the Philippines in their pursuits for higher education.

Organizes charity events in Japan to raise donation funds. Makes annual visits to orphanage.

### **Chinatown Afterschool Program Mentor** *Boston, MA, USA*

Sept 2017 – May 2018

Assisted with providing afterschool instruction for children living in Boston's Chinatown. Supported learning for third grade students.