Lisa Orii

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

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Research Interests

I develop and evaluate human-centered mobile health (mHealth) that supports healthcare provision in low- and middle-income countries (LMICs) using human-computer interaction (HCI) frameworks. My research is collaborative – I work closely with health experts and Ministries of Health who understand local contexts. My thesis focuses on technologies that support provision of care in community settings and integrating interventions into existing health systems.

Education

University of Washington (UW)   *Sept 2021 – June 2026 (Expected)*
Ph.D. in Computer Science & Engineering
Global WACh Certificate Program
Advisor: Professor Richard Anderson

Wellesley College   *Sept 2017 – June 2021*
B.A. in Computer Science and Philosophy
Advisor: Professor Orit Shaer
Magna Cum Laude, Phi Beta Kappa, Sigma Xi

University of Oxford Worcester College   *Sept 2019 – Dec 2019*
Visiting student in Computer Science and Philosophy

Publications

Peer-Reviewed Publications

1. **Lisa Orii**, Elizabeth K. Harrington, Serah Gitome, Nelson Kiprotich Cheruiyot, Elizabeth Anne Bukusi, Sandy Cheng, Ariel Fu, Khushi Khandelwal, Shrimayee Narasimhan, and Richard Anderson. Supporting Contraceptive Decision-Making in the Intermediated Pharmacy Setting in Kenya. Recently accepted to *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI '25)*.

2. **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 gave us the right to choose." A qualitative study of preferences for differentiated service delivery location among recipients of antiretroviral therapy at Lighthouse Trust in Lilongwe Malawi. Recently accepted to *PLOS ONE.*

3. Shaan Chopra, **Lisa Orii**, Katherine Juarez, Nussara Tieanklin, James Fogarty, and Sean A. Munson. 2024. Menopause Legacies: Designing to Record and Share Experiences of Menopause Across Generations. In *Proc. ACM Hum.-Comput. Interact (CSCW '24)*. [link]

4. **Lisa Orii**, 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)*. **Best Paper Honorable Mention (top 5%)** [link]

5. **Lisa Orii**, Caryl Feldacker, Hannock Tweya, Richard Anderson. eHealth Data Security and Privacy: Perspectives from Diverse Stakeholders in Malawi. Proc. ACM Hum.-Comput. Interact (CSCW '24). [link]

6. **Lisa Orii**, 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)*. [link]

7. **Lisa Orii**, 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)*. [link]

8. **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)*. [link]

9. **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*. [link]

10. 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 58th Annual Meeting of the Association for Computational Linguistics (ACL 2020).* [link]

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).

Research Projects

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

Tools for Health Researchers to Maintain Mobile Health Apps   *Oct 2024 – Present*
Graduate Research Assistant – University of Washington, Seattle, WA, USA
Advisor: Richard Anderson
- Exploring designs for software tools that health researchers can use to maintain the content and user interface of mobile health apps.
- Methods and Tools: **Study design** (ideation, ethics approval), **Semi-structured interviews**, **Prototyping**

Mobile App for Expanding Contraceptive Choice in Kenya   *Oct 2023 – Present*
Graduate Research Assistant – University of Washington, Seattle, WA, USA
- Developed an Android app to provide contraceptive education and decision support for young women in the Kenyan pharmacies.
- Conducted co-design workshops in Kenya to gather app feedback.
- Piloted app with 100 users in Kenya.
- Prototyping chatbot designs.
- Methods and Tools: **Co-design**, **Prototyping**, **Focus group discussions**, **Flutter**, **Dart**, **Figma**
- Publication: CHI 2025 paper

Strengthening Digital Health Systems for Small and Sick Newborns   *Apr 2024 – Sept 2024*
Intern – PATH, Seattle, WA, USA
- Developed recommendations for digital information systems for human milk banking that strengthen newborn care programs in low- and middle-income countries.
- Identified data elements to gather on digital information systems.
- Compared business processes between human milk banking and blood banking.
- Conducted human milk banking gap analysis.
- Methods and Tools: **Business processes**, **Literature review**

HIV Data Security and Privacy in Malawi   *May 2022 – Sept 2024*
Graduate Research Assistant – University of Washington, Seattle, WA, USA
- Investigated gaps and opportunities in the security of an open-source mobile medical record system used at a HIV care program in Malawi.
- Interviewed healthcare providers, data decision makers, and HIV clients to illuminate key data security issues.

- Developed policy and practice improvements for data security and privacy.
- Methods and Tools: **Study design** (ideation, ethics approval, execution, publication writing and submission), **Semi-structured interviews**, **Focus group discussions**, **Qualitative analysis**, **ATLAS.ti**
- Publication: CHI 2024 paper [link], CSCW 2024 paper [link], PLOS ONE paper

USSD Transaction Failures in Nigeria   *Sept 2023 – July 2024*
Graduate Research Assistant – University of Washington, Seattle, WA, USA
- Designed a longitudinal repeated measures study to examine USSD reliability in Nigeria.
- Analyzed transaction failure rates between banks and telecommunication providers after a 1-month deployment that resulted in 40,000 USSD sessions.
- Methods and Tools: **Study design** (ideation, recruitment planning, ethics approval)**, Data visualization**, **Quantitative analysis**, **Python**, **R**

Designs for Recording and Sharing Menopause Experiences Across Generations   *Jan 2022 – Oct 2023*
Graduate Research Assistant – University of Washington, Seattle, WA, USA
- 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**, **Qualitative analysis**
- Publication: CSCW 2024 paper [link]

Speech Practice Systems to Improve Self-Perceptions   *Apr 2020 – May 2022*
Undergraduate Research Assistant – University of Washington, Seattle, WA, USA
- Investigated 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**, **User study**, **Mixed-methods**, **Prototyping**, **HTML/CSS/JavaScript**, **R**
- Publication: CHI 2022 paper [link]

Truck Drivers' Perspectives on Automation   *Sept 2020 – July 2021*
Undergraduate Research Assistant – Wellesley College, Wellesley, MA, USA
- 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), **Web scraping**, **Mixed-methods**, **Python**
- Publications: CHI 2021 poster [link], AutoUI 2021 paper [link]

Grants, Awards, Fellowships

ACM CHI 2024 Best Paper Honorable Mention (top 5%)	*2024*
Horton-Hallowell Fellowship	*2024*
University of Washington Global Innovation Fund Tier 2 Research Award	*2022*
Quad Fellowship	*2022*
MIT Technology Review's Innovators Under 35 Japan	*2020*
Funai Overseas Scholarship	*2020*
Grace Hopper Celebration 2020 Scholarship	*2017*
Japan Student Services Organization (JASSO) Undergraduate Scholarship	*2017*
Grew Bancroft Foundation Scholarship	*2017*
Kanazawa Iwao Memorial Foundation Scholarship	*2017*

Teaching

Graduate Teaching Assistant, *University of Washington*
Courses: Human-Computer Interaction (Wi 2024), Capstone Software Design to Empower Underserved Populations (Sp 2024), Computing for Social Good (Au 2024), Data Programming (Wi 2025)

Undergraduate Teaching Assistant, *Wellesley College*
Courses: Human-Automation Interaction (Sp 2021), Human-Computer Interaction (Sp 2021), Calculus II (Sp 2018)

Mentorship

Krisha Khandelwal: Mobile App for Expanding Contraceptive Choice in Kenya
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	*2023 – Present*
ACM CHI Conference on Human Factors in Computing Systems (CHI)	*2023 – Present*

Organization

UW Change Seminar Co-Organizer	*2022 – 2024*
UW ICTD Seminar Co-Organizer	*2022 – 2024*
UW CSE Prospective Student Committee Co-Chair	*2023 – 2024*
UW Pre-Application Mentorship Service Volunteer	*2021 – 2024*

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.