Mateusz Dubiel

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INTERESTS	**Human-Computer Interaction, Speech Synthesis, User-Centered Design**

CURRENT EMPLOYMENT

Research Associate (Postdoctoral Researcher)   **Sep 2021- Present**
University of Luxembourg, Esch-sur-Alzette, Luxembourg
- Conducting research in the field of human-centered conversational agents
- Designing and delivering 'Designing Interactive Systems' MSc course
- Delivering 'User-Centered Design' BSc course
- Providng teaching assistance for BSc 'Web Development' course
- Supervising Bachelor- and Master-level students

RELEVANT EXPERIENCE

Exchange Scholar   **Sep 2022- Dec 2022**
Harvard University, Cambridge, MA, The USA
- Exploring role of speech as a support mechanism in sustaining focus
- Designing and deploying AI-supported decision making experiments

Visiting Junior Research Fellow   **Nov 2019- Jan 2020**
Tokyo Institute of Technology, Tokyo, Japan
- Designing and conducting interactive speech perception experiments
- Analysing impact of different voice interfaces on user's cognitive workload

Teaching Assistant: Big Data and Information Retrieval   **2017-2019**
The University of Strathclyde, Glasgow, The UK
- Assisting students during technical tutorials
- Clarifying concepts covered in lectures
- Marking student assignments, providing performance feedback

Language Expert   **2015-2018**
CereProc Ltd. Text to Speech, Edinburgh, The UK
- Providing input and guidance during the creation of Polish synthetic voice
- Reporting to engineering and research teams

UNIVERSITY EDUCATION

University of Strathclyde, PhD Human-Computer Interaction 2016-2021
Dissertation: 'Exploring the Impact of Conversational Strategies on User Search Experience in Goal-Oriented Tasks in a Voice-Only Domain'

University of Edinburgh, MSc Speech & Language Processing 2014-2016
Class: Merit
Degree in Computer Science with emphasis on Natural Language Processing
Dissertation: 'Developing a Speech Recogniser for Massive Online Learning Courses'

University of Edinburgh, MSc Translation Studies   2009-2011
Class: Distinction
Completed a wide range of courses in applied linguistics and audio-visual translation

Napier University, **BA Cultural Studies with Languages**   **2008-2009**
Class: 2.1 (Advanced Entry)
Interdisciplinary degree in linguistics, psychology, sociology, English and Spanish

SELECTED PUBLICATIONS

M. Dubiel, L. A. Leiva, Bongard-Blanchy, K., and Sergeeva, A. 2024. *Hey Genie, You Got Me Thinking About My Menu Choices!" Impact of Proactive Feedback on User Perception and Reflection in Decision-making Tasks.* ACM Transactions on Computer-Human Interaction. (Just Accepted)

M. Dubiel, A. Sergeeva and L. A. Leiva 2024. *Impact of Voice Fidelity on Decision Making: A Potential Dark Pattern?* ACM 29th International Conference on Intelligent User Interfaces (IUI), Greenville, SC, The US, March, 18-21, 2024.

M. Dubiel, Barghouti, Y., Kudryavtseva, K., and L. A. Leiva 2024. *On-device query intent prediction with lightweight LLMs to support ubiquitous conversations.* Nature Scientific Reports, 14(1), 12731.

L. Hillah, **M. Dubiel** and L. A. Leiva 2024. *"¿ Te vienes? Sure!" Joint Fine-tuning of Language Detection and Transcription Improves Automatic Recognition of Code-Switching Speech.* ACM 6th Conference on Conversational User Interfaces (CUI), Luxembourg City, Luxembourg, July, 08-10, 2024. [Best Short Paper Award 🏆]

M. Dubiel, S. Daronnat and L. A. Leiva 2022. *Conversational Agents Trust Calibration: A User-Centred Perspective to Design .* ACM 4th International Conference on Conversational User Interfaces (CUI), Glasgow, The UK, July, 26-28, 2022.

M. Dubiel, M. Nakayama and X. Wang 2021. *Combining Oculo-motor Indices to Measure Cognitive Load of Synthetic Speech in Noisy Listening Conditions.* ACM ETRA '21: 2021 Symposium on Eye Tracking Research and Applications, Virtual Event, Stuttgart, Germany, May, 24-27, 2021.

M. Dubiel, P. Oplustil-Gallegos, M. Halvey and S.King 2020. *Persuasive Synthetic Speech: Voice Perception and User Behaviour.* ACM 2nd International Conference on Conversational User Interfaces (CUI), Bilbao, Spain, July, 23-24, 2020. [Honourable Mention Award 🎖]

TEACHING EXPERIENCE

6. **Main Lecturer on 'Designing Interactive Systems' (MSc Course)**
   University of Luxembourg (Winter 2022, Winter 2023, and Winter 2024)

5. **Main Lecturer on 'User-centred Design' (BSc Course)**
   University of Luxembourg (Winter 2024)

4. **Guest Lecturer on 'Introduction to Deep Learning' (MSc Course)**
   University of Luxembourg (Summer 2023) - Lecture on Speech Synthesis

3. **Teaching Assistant on 'Web-Development 1' (BSc Course)**
   University of Luxembourg (Summer 2021)

2. **Teaching Assistant on 'Intro. to Information Retrieval' (BSc Course)**
   University of Strathclyde (Summer 2018)

1. **Teaching Assistant on 'Big Data Analytics' (MSc Course)**
   University of Strathclyde (Winter 2017 and Winter 2018)

STUDENT SUPERVISION	8. **Léopold Hillah, University of Luxembourg** **2024**

STUDENT SUPERVISION

8. **Léopold Hillah, University of Luxembourg** — **2024**
Improving Automatic Speech Recognition in Code-Switching Contexts
Co-advisor (PhD Thesis)

7. **Renata Wietrzyńska, The Cardinal Stefan Wyszyński University** — **2024**
Improving Instagram's Accessibility for Vision-impaired Users
Co-advisor (MSc Thesis)

6. **Gabriel Botelho Ribeiro, University of Luxembourg** — **2024**
Evaluating User Engagement on Sport Equipment Website via A/B Testing
Main Supervisor (Bachelor Semester Project)

5. **Alexis Ciarrone, University of Luxembourg** — **2023**
Enricommender: Business Intelligence for User Interface Design
Advisor (MSc Thesis) [published in *Interacting with Computers*]

4. **Yasmine Barghouti, University of Luxembourg** — **2023**
Query Intent Classification for Chatbots with Language Model Finetuning
Advisor (MSc Thesis) [published in *Nature Scientific Reports*]

3. **Saad Shakeel, University of Luxembourg** — **2022**
Developing a Conversational Movie Recommender with RASA framework
Main Supervisor (Bachelor Semester Project)

2. **Eliott Bonte, University of Luxembourg** — **2022**
Nova Chatbot: Featuring Happy Mapping in Sightseeing Recommendations
Main Supervisor (Bachelor Semester Project)

1. **Laurent Schmidt, University of Luxembourg** — **2022**
Comparative Review of Conversational Agents for Self-Reflection
Main Supervisor (Bachelor Semester Project)

PEDAGOGICAL TRAINING

Fellow of the Higher Education Academy — **2024**
UK Professional Standards Framework (UKPSF)

GRANTS & AWARDS

The iSchools Doctoral Dissertation Award '22 (Runner Up): $1000 prize
JSPS Fellowship '21 and '22: £30000 to conduct research on speech perception
Seal of Excellence: for Marie Curie Sklodowska Fellowship Proposal '21 (90.4/100)
Mac Robertson Scholarship: £3745 to conduct a research visit at Tokyo Tech
Honourable Mention Award: for Persuasive Synthetic Speech research paper
SIGIR Student Grant: $2000 to attend ACM CHIIR 2018 Conference

MEDIA/PRESS COVERAGE

Uni.lu press release: *How synthetic voices can influence your choices* — **2024**
The article provides an overview of our IUI'24 article about deceptive potential of synthetic speech in the context of decision-making tasks.

SELECTED ACADEMIC SERVICE

- ACM Conversational User Interfaces Conference (CUI'24) – *General Chair*
- ACM CHI Conference on Human Factors in Computing Systems (CHI'23) – *Late Breaking Work (LBW) Associate Chair*
- ACM Conversational User Interfaces Conference (CUI'23) – *Registration Chair*
- ACM Conversational User Interfaces Conference (CUI'22) – *Short Papers Chair*

ACADEMIC MEMBERSHIPS

Association for Computing Machinery (ACM) — **2016-2024**
Special Interest Group in Computer-Human Interaction (SIGCHI) — **2017-2024**