Fourth-year DPhil Candidate in Computer Science at the University of Oxford. Former student researcher at Google UK working on large language model (LLM) evaluation. Research Fellow at Stellenbosch University's Unit for the Ethics of Technology. Unique interdisciplinary expertise across STEM (Computer Science), the Humanities (Philosophy, Linguistics, Applied Ethics), the Social Sciences (Social Anthropology), and their integration (Cognitive Science, Human-Computer Interaction, Responsible Innovation, Computational Linguistics).

#### **Publications**

- Alberts, L., Lyngs, U., & Van Kleek, M. 2024 "Computers as Bad Social Actors: Dark Patterns and Anti-Patterns in Interfaces that Act Socially", to appear in Proceedings of the 2024 ACM SIGCHI Conference on Computer-Supported Cooperative Work & Social Computing (CSCW), San José, Costa Rica, November 9-13, 2024. arXiv.2302.04720. DOI
- Gabriel, I., Manzini, A., Keeling, G., Hendricks, L.A., Reiser, V., Iqbal, H., Tomasev, N., Ktena, I., Kenton, Z., Rodriguez, M., El-Sayed, S., Brown, S., Akbulut, C., Trask, A., Hughes, E., Bergman, A. S., Shelby, R., Marchal, N., Griffin, C. ... Manyika, J. 2024. "The Ethics of Advanced AI Assistants". Google DeepMind. PDF
- Alberts, L., Keeling, G., & McCroskery, A. 2024. "What Makes for a 'Good' Social Actor? Using Respect as a Lens to Evaluate Interactions with Language Agents", under review at *Minds & Machines*. arXiv.2401.09082. DOI
- Lyngs, U., Lukoff, K., Slovak, P., Inzlicht, M., Freed, M., Andrews, H., Tinsman, C., Csuka., L., Alberts, L., Oldemburgo de Mello, V., Makransky, G., Hornbæk, K., Van Kleek, M., & Shadbolt., N. 2024. "I finally felt I had the tools to control these urges': Empowering Students to Achieve Their Device Use Goals With the Reduce Digital Distraction Workshop", to appear in Proceedings of The ACM CHI Conference on Human Factors in Computing Systems, Honolulu, Hawai'i, USA, 11-16 May, 2024. PDF
- Alberts, L., Lyngs, U., & Lukoff, K. 2024. "Designing for Sustained Motivation: A Review of Self-Determination Theory in Behaviour Change Technologies", accepted for review for a special edition of *Interacting with Computers: Self-Determination Theory in HCI*. arXiv.2402.00121. DOI
- Lukoff, K., Lyngs, U., & Alberts, L. 2022. "Designing to Support Autonomy and Reduce Psychological Reactance in Digital Self-Control Tools", in Self-Determination Theory in HCI: Shaping a Research Agenda. Workshop at the ACM CHI Conference on Human Factors in Computing Systems (CHI'22). PDF
- Alberts, L. 2020. "Not Cheating on the Turing Test: Towards Grounded Language Learning in Artificial Intelligence", master's thesis. arXiv.2206.14672. DOI
- Alberts, L. 2019. "Meeting Them Halfway: Altering Language Conventions to Facilitate Human-Robot Interaction". Stellenbosch Papers in Linguistics Plus, 56:97-122. DOI

## Work Experience

## Student Researcher

July-October 2023

Google London, UK

I worked for three months as a student researcher in the Cerebra team at Google. I led a project critically evaluating current alignment approaches and frameworks for Large Language Models (LLMs), taxonomised unexplored risks, and proposed a novel ethical framework centred on duties of respect.

# Leader of Royal Institution Masterclass in Computer Science

The Royal Institution, UK

I have designed a Royal Institution Masterclass on *Dark Patterns* in user interface design, which I have been leading annually for high school children.

#### Graduate Research Assistant

2020-2021

2023-

University of Oxford, UK

I worked as an RA for the EPSRC-funded RoboTIPS project taking a Responsible Innovation approach to the research and development of social robots.

# Teaching Assistant and Seminar Leader

• University of Oxford, UK 2020-2021 Software Engineering Dept.: Interaction Design, Requirements Engineering Computer Science Dept.: Ethical Computing in Practice, Ethics and Responsible Innovation

• North-West University, ZA 2015-2017 I was TA for several Philosophy and Art History courses and led weekly seminars.

#### Education

# D.Phil. in Computer Science

Finalising—Passed Confirmation Viva

University of Oxford, UK

My doctorate employs HCI methods, as well as critical engagement with interdisciplinary literature, to improve how systems and devices treat people in interactions. I particularly focus on LLM agents and other systems that behave as social actors. The aims include better supporting user autonomy and wellbeing, and anticipating/mitigating risks associated with emerging language technologies.

## M.A. (Thesis) in Philosophy

Dec 2020

Stellenbosch University, ZA

Type: Full research thesis (140 pages)

Domains: Philosophy of Mind and Language, Cognitive Science, Cognitive and Computational Linguistics, NLP and NLU (theory)

Title: 'Not cheating on the Turing Test: Towards grounded language learning in AI' Final grade:

Distinction 84%

#### B.A. (Hons) in Philosophy

Mar 2019

Stellenbosch University, ZA

University of Bristol, UK (4 months Study Abroad)

Bristol: Philosophical Issues of the Physical Sciences, Probability and Rationality Stellenbosch: Nietzsche, Philosophy of Language Average: 80% Dissertation: 'Meeting them halfway: Altering language conventions to facilitate human-

robot interaction' (18566 words)

Mark: 88%

Final grade: Cum Laude 82%

## B.A. in Humanities

Mar 2018

North-West University (Potchefstroom), ZA

Majors: Philosophy, History of Art, Social Anthropology

Minors: English, History, Communication Studies

Extra modules: 9 (152 extra credits)

Final grade:

Distinction 82% (Graduated top of class)

# Eldoraigne High School, ZA

Final marks: Information Technology (87%), Maths (83%), Design (97%), English (85%), Afrikaans (89%), Life Orientation (81%), Dramatic Arts (81%)

Nov 2012 Final grade: **Distinction 87**%

# External Research Talks

- Computers as Bad Social Actors 8 Mar 2024 Princeton's ETHICOM AI & Ethics Seminar, Princeton University, NJ, USA
- Dark and Anti-Patterns in Social Interfaces 13 Sep 2023 Google-Cambridge University Reading Group on Conversational Agents, Google London, UK
- Dark and Anti-Patterns in Social Interfaces 10 Sep 2023 TL/UXR, Google, London, UK
- Respect as a Value for Human-Computer Interaction 21 Mar 2022 Institute for Ethics in AI gathering with Accenture, University of Oxford, UK

# Research Workshops

Google's Techno-Moral Scenarios for Responsible Innovation 17-19 Oct 2023 Google Research/Responsible Innovation, Google Amsterdam, the Netherlands I was invited to join a select panel of experts from academia and industry to exchange views on using responsible innovation to advance a vision of AI that is empowering, meaningful, and beneficial. We practised using a combination of RI methods (e.g., design fiction, speculative design, and Google's own techno-moral scenario approach) to imaginatively and reflexively engage with ethical concerns regarding new technologies.

## Generative AI and Its Impact on Human Creativity

1 Feb 2024

Google and the Graziano Lab, Princeton University, NJ, US

I was invited to join a select panel of scholars and Googlers to produce a set of responsible and ethical recommendations regarding Gen(erative) AI. We reflected on the nature and processes of human creativity, and how GenAI may affect, and ideally support it.

Self-Determination Theory in HCI: Shaping a Research Agenda 9 May 2022 The ACM CHI Conference on Human Factors in Computing Systems, Hawaii, US I participated in a CHI workshop with other HCI researchers to explore how self-determination theory may aid the design of user-centred technologies.

# Skills

- **Programming:** Python (deep learning/neural networks); Object Pascal; MAT-LAB (machine learning); Octave; C; C#; HTML; JavaScript; SQL; PHP
- **GenAI-specific research**: Using responsible innovation methods to evaluate ethical concerns surrounding foundation models; familiarity with RLHF approaches and self-correction strategies for LLMs; experience with prompt engineering, fine-tuning, alignment; machine learning/deep learning theory and practice.
- Empirical research: Quantitative and qualitative research methods with human participants; thematic analysis; systematic and scoping reviews
- Applied research: Integrating literature from theoretical and practical disciplines; critical and conceptual analysis; applied ethics; evaluating the potential risks/impacts of AI technologies in multidisciplinary teams
- Academic and Creative Writing: Writing/reviewing academic papers, poetry

• System and Graphic Design: Interaction design, requirements engineering, user-centred design, value-sensitive design, speculative design, graphic design

# Additional Certification

- Neural Networks and Deep Learning by deeplearning.ai on Coursera Grade: 100% (Credential ID: XPWXVSS9FEHH)

  Dec 2018
- Diploma in Web Development by Shaw Academy

Jul 2016

# Organisational Experience

# Leader of Interdepartmental Reading Group on LLMs

2023-

The University of Oxford, UK

I lead a biweekly reading group on emerging research on LLMs where Oxford University researchers from Computer Science, Engineering and the Oxford Internet Institute (OII) share their work, discuss new developments in the field, and take GenAI courses.

# Co-founder and Organiser of RTI Student Network

2020-

The Responsible Technology Institute (RTI), The University of Oxford, UK
The RTI is an international centre of excellence on responsible technology. I co-founded
its international student network connecting researchers interested in RI. I help to organise reading groups, expert panel discussions, and work-in-progress seminars.

# President of Oxford University CompSoc

2021-2022

The Oxford University Computer Society (CompSoc)

I was the first female president of CompSoc (est. 1978), one of Oxford University's largest and oldest societies for computer science-related interests. I delegated work, engaged with industry sponsors, and helped organise a university-wide hackathon.

# Awards and Achievements

# Graduate Lighthouse Scholarship

2020

The Responsible Technology Institute and Department of Computer Science, University of Oxford, UK

My doctorate is funded by a highly competitive scholarship awarded by the Responsible Technology Institute.

# Awards for Academic Achievement

- Department of Philosophy, North-West University, ZA Mar 2018 Merit certificate for excellent academic achievement in Philosophy (top of class)
- School of Social and Gov. Studies, North-West University, ZA Mar 2016 Merit certificate for best academic achievement in Medical Anthropology
- School of Social and Gov. Studies, North-West University, ZA Mar 2016 Merit certificate for best academic achievement in Urban Anthropology

#### Member of Golden Key International Honour Society

2016

North-West University (Potchefstroom), ZA

I was invited for being ranked in the top 15% of North-West University's sophomores.