PHILIPP WICKE

PHD, ARTIFICIAL INTELLIGENCE
B.SC., COGNITIVE SCIENCE

SHORT PROFILE

The study of the mind and its workings has taught me a range of intra-disciplinary skills, creative thinking and lateral methods. These studies resulted in a B.Sc. degree in Cognitive Science (with distinction). Over the course of this program I explored artificial, creative language systems (research at UCD, Dublin) and cognitive models for epileptic patients (research at NTU, Singapore). Ultimately, this has set me on a multidisciplinary research track, publishing journal articles, presenting at international conferences whilst collaborating with multiple researchers from a diversity of fields. Additionally, I share my knowledge and expertise as the Head of AI for People NGO to support building Artificial Intelligence for societal benefit.

ACADEMIC HISTORY

ASSISTANT PROFESSOR | (Akad. Rat), Postdoc
CIS, Center for Language and Information Processing
Ludwig-Maximilians-Universität, GER | 2021-present

- Lecturer: Introduction to Programming, Computational Creativity and Cognitive Linguistics
- Faculty Administration: Computational Linguistics
- Research and funding assistance to Prof. Hinrich Schuetze

PHD, ARTIFICIAL INTELLIGENCE
School of Computer Science
University College Dublin, IRL | 2017-2021

- Research project: Embodied Story-Telling: Augmenting Symbolic Narrative Generation with embodied gesture and emotion in a robotic agents
- UCD School of Computer Science PhD Scholarship Awardee

B.SC., COGNITIVE SCIENCE
GPA: 1.1 with distinction (max: 1.0, min: 4.0)
University of Osnabrück, GER | 2013-2017

- Trans-disciplinary program consisting of artificial intelligence, neuroinformatics, psychology, neuroscience, philosophy of mind and linguistics.
- Bachelor Thesis: "Ideograms as Semantic Primes: Emoji in Computational Linguistic Creativity"

INTERNSHIP: DAUWELS LAB
School of Electrical & Electronics Engineering
Nanyang Technological University, SGP | 2016
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- Development of computational models based on nonlinear dynamics and computational neuroscience.
- DAAD - RISE Stipend Awardee.
- PI: Justin Dauwels

INTERNSHIP: CREATIVE LANGUAGE SYSTEMS
School of Computer Science
University College Dublin, IRL | 2016

- Research on creative linguistic phenomena
- ERASMUS+ Scholarship Awardee.
- PI: Tony Veale

WORK EXPERIENCE

HEAD OF AI APPLICATIONS
AI for People (aiforpeople.org)
Non-Profit Organization | 2019-present

- Consultant with technical expertise on Artificial Intelligence
- Organizer of Workshops and Lecture Series. Focus: Natural Language Processing
- Building a network of researchers from different backgrounds to collaborate on projects that connect AI with Science, Culture, Ethics and more.

AI for People is a non-profit organization composed of a diverse team of motivated individuals that is dedicated to bring AI Policy to the people, in order to create positive change in society with technology, through and for the public. Since 2019, I am a core member and Head of AI applications at AI for People. In this role, I have organized several workshops and lectures with a focus on NLP and how it can be used by non-researchers to understand data in an increasingly complex world. Chairwoman Marta Ziosi (marta.ziosi@aiforpeople.org) can provide a reference for my work at the organization.

PUBLICATIONS

JOURNALS

- "Covid-19 discourse on Twitter: How the topics, sentiments, subjectivity and figurative frames changed over time" P. Wicke and M.Bolognesi. Frontiers in Communication. 2021.

- "Framing COVID-19: How we conceptualize and discuss the pandemic on Twitter" P.Wicke and M.Bolognesi. PloS ONE. doi.org/10.1371/journal.pone.0240010. 2020.

- "Emoji-based semantic representations for abstract and concrete concepts" P.Wicke and M.Bolognesi. Cognitive Processing. Springer. 2020.

- "The Show Must Go On: On The Use of Embodiment, Space and Gesture in Computational Storytelling" P. Wicke and T. Veale. New Generation Computing. Special Issue: New Directions in Computational Creativity. 2020.

CONFERENCES (selected)

- "LoHoRavens: A Long-Horizon Language-Conditioned Benchmark for Robotic Tabletop Manipulation" S. Zhang, P. Wicke, L.K. Senel, L. Figueredo, A. Naceri, S. Haddadin, B. Plank, H. Schuetze. 6th Robot Learning Workshop at NeurIPS 2023.
- "Towards Language-Based Modulation of Assistive Robots through Multimodal Models" P. Wicke, L.K. Şenel, S. Zhang, L. Figueredo, A. Naceri, S. Haddadin, H. Schütze. Geriatronics Summit 2023. Garmisch-Partenkirchen, Germany.
- "LMs stand their Ground: Investigating the Effect of Embodiment in Figurative Language Interpretation by Language Models" P. Wicke, ACL 2023 Findings (long). Toronto, Canada. Paper.
- "A Crosslingual Investigation of Conceptualization in 1335 Languages" Y. Liu, H. Ye, L. Weissweiler, P. Wicke, R. Pei, R. Zangenfeind and H. Schütze, ACL 2023 Main (long). Toronto, Canada. Paper.
- "Are You Not Entertained? Computational Storytelling with Non-Verbal Interaction" P. Wicke and T. Veale. HRI21. International Conference on Human Robot Interaction. LBR. 2021.
- "Show, Don't (Just) Tell: Embodiment and Spatial Metaphor in Computational Story-Telling" P. Wicke and T. Veale. ICCC20. International Conference on Computational Creativity. Paper. 2020.
- "Walk the Line: Digital Storytelling as Embodied Spatial Performance" P. Wicke and T. Veale. AISB20 Conference on Artificial Intelligence and Simulated Behavior. Short Paper. 2020.
- "You Had To Be There: Cognitive Insights from an Embodied Storytelling System" P.Wicke and T.Veale. Computational Cognition Workshop 2019, Osnabrück. Poster. 2019.
- "Duets Ex Machina: On The Performative Aspects of "Double Acts" in Computational Creativity." T.Veale, T. Mildner and P.Wicke| ICCC19. International Conference on Computational Creativity, Charlotte (USA). Poster. 2019.
- "Interview with the Robot: Question-Guided Collaboration in a Story-telling System" P.Wicke and T. Veale | International Conference on Computational Creativity, Salamanca (Spain). Paper. 2018

TOPIC EXPERTISE

COGNITIVE SCIENCE (B.Sc.)

- **Linguistics**
  - Framing, Metaphor and Image Schemas
- **Neuroscience**
  - Perception, Signal Processing and Modelling
- **Psychology**
  - Neurobiopsychology and Statistics

ARTIFICIAL INTELLIGENCE (Ph.D., Computational Linguistics)

- **Natural Language Processing**
  - Topic Modeling, Data Mining, Sentiment Analysis
- **Machine Learning**
  - Prediction and Generation
- **Language Model Analysis**
  - Fine-tuning, prompt engineering and analysis of LLMs

TECHNICAL EXPERTISE
(RELEVANT SELECTION)

Programming Languages:
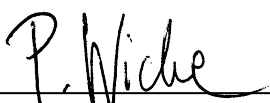- Expert: Python, Java
- Basic: C, Matlab, R

NLP-Toolkit
- Familiar with: Gensim, SpaCy, ConceptNet, Huggingface

Methodological Skills
- Crowdsourcing
- Data mining

Munich, 5th of September 2024

P. Wicke