**LBG Career Center**

Syllabus

**Event** Skills Training – Mastering AI Chatbots – optimizing research through effective use

**Speakers** Dr. Hannah Metzler & Konstantin Hebenstreit, M.Sc.

**PM** Mag. Mareike Kerschbaum

**Time** October 29, 2023 / 9:00 am – 5:00 pm

**Place** LOFFICE Wien, Schottenfeldgasse 85, 1070 Wien

**Language** English

In this skills training, we will focus on how to use AI chatbots effectively for tasks throughout the research process. We will cover how to customize AI Chatbot settings and practice the art of writing effective prompts. We will also briefly examine how Large Language Models (the models behind modern chatbots) work, get an overview of different models and their strengths, and discuss the most important ethical questions around using AI chatbots in research.

**Agenda**

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| **WHEN** | **WHAT** | **HOW** |
| 9:00 – 9:30 | Welcome, setup & short introduction |  |
| 45 min  without discussion | Introduction to LLMs  A beginner-friendly breakdown on how large language models operate, exploring different available Chatbots. | Presentation & discussion, Konstantin |
| 1h20 | Chatbot Essentials  Practical tips for engaging with chatbots, focusing on crafting quality prompts. | Presentation & Exercise, Hannah |
| 11:20-11:35 | Coffee break |  |
| 55 min | Prompting Strategies  Reduce hallucinations and optimize your prompts | Teaching input & Exercise, Hannah |
| 12:30-13:30 | Lunch Break |  |
| 45 min (more time would have been good) | Chatbots in Research: Writing & Communication  Drafting, editing, and refining texts | Teaching input & Exercise, Konstantin |
| 45 min (14:15-15h) | Customizing Chatbots  Tailor your Chatbots for specific research needs, from system prompts to creating custom Chatbots. | Teaching input & Exercise, Konstantin |
| 15:00-15:15 | Coffee break |  |
| Ca 45 min, 15:15-16:00 | Ethical Considerations  Critical concerns about data privacy and scientific outputs like publications. | Presentation, Konstantin |
| Ca 25 min?, no exercise 16:00-16:30 | Scientific tools based on LLMs  Summarizing research content, managing large amounts of text, explore research ideas | Teaching input & Exercise of your choice, Hannah |
| 0 min - skipped | Collection of researcher use cases  Ideas for where to use LLMs in the research process | Presentation, Hannah |
| Ca 25 min?  16:20-16:50 | Try something new and fun  Data analysis in a language you don’t know, create a website, or get coaching for career decisions or productivity | Teaching input & Exercise, Hannah |
| 5 min (no questions) 16:50-16:55 | Resource Sharing & Open Questions | Presentation & discussion, Hannah |
| 16:55 – 17:00 | Closing Round & Feedback |  |

**Speakers**

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| **Konstantin Hebenstreit, B.Sc. B.Sc. M.Sc.** |  |
| **Doctoral researcher at the Artificial Intelligence Center, Medical University of Vienna** |
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| **Core competencies:** machine learning, artificial intelligence, large language models, natural language processing, trustworthiness & safety of AI, programming in python |
| **Contact:** konstantin.hebenstreit@meduniwien.ac.at |
| **Profile** (extract)   * 2023-2024: doctoral researcher, Artificial intelligence Institute, Medical University of Vienna * 2023: Research Assistant, Artificial Intelligence Institute, Medical University of Vienna * 2020: Machine Learning internships at University of Vienna & Complexity Science Hub * 2018-2019: Physiotherapist, Medius - Zentrum für Gesundheit, Graz * M.Sc. in Artificial Intelligence, B.Sc. in Physiotherapy and Psychology | |

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| **Mag. Dr. Hannah Metzler** |  |
| **Researcher & Project Lead at Medical University of Vienna & Complexity Science Hub** |
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| **Core competencies:**  psychology, statistics & data analysis with R, open and reproducible research practices, social media & mental health, social media & misinformation |
| **Contact:** metzler@csh.ac.at, www.hannahmetzler.eu |
| **Profile** (extract)   * 2021-2024, Complexity Science Hub Vienna, PostDoc & Project Lead * 2020-2024, Medical University of Vienna, Center for Medical Data Science (until now) & Center for Public Health (until 2022), PostDoc * 2019-2020, Know-Center - Research Center for Data-Driven Business & Big Data Analytics, Graz, senior researcher & project manager * 2014-2018 Ecole Normale Supérieure Paris, doctoral researcher * Mag.rer.nat in psychology, PhD in cognitive neuroscience | |