NeuroIS Training Course 2024

A Pre-Event of the NeuroIS Retreat 2024
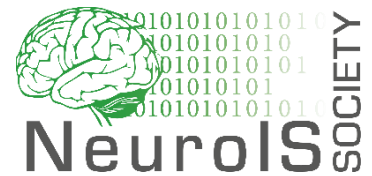
—Theme—

Getting Started with NeuroIS: Choosing Tools, Methodologies, and Theories

June 9, 2024

10.00 – 16.00
Central European Summer Time (CEST)

Venue

Hotel Astoria, Kärntner Straße 32-34/Entrance Führichgasse 1, 1010 Vienna, Austria
The training course is <u>free of charge for NeuroIS Society members</u>**, but registration is required.**

Because the NeuroIS field is still in a relatively early stage of development, it is important that interested researchers have opportunities to learn NeuroIS concepts, including knowledge on human neurobiology and neuroscience tools. Based on a reasonable degree of neuroscience knowledge, academics can develop insight that is necessary to evaluate the potential of neuroscience for specific research areas in the information systems (IS), design science, and computing disciplines, and to choose appropriate tools, methods, and theories. Solid knowledge is indispensable for researchers, reviewers, and journal editors.

The *NeuroIS Training Course 2024*, an offer of the NeuroIS Society, is designed to give participants a basic foundation in major concepts, methods, and tools related to NeuroIS research. This course is specifically designed to collaborate in actively developing NeuroIS research strategies for early-stage research ideas of interest to the participants. Participants are asked to submit research ideas in advance, and to come prepared to briefly present and discuss their ideas in a workshop atmosphere. The tutors – Fred D. Davis (Texas Tech University, USA), Pierre-Majorique Léger (HEC Montréal, Canada), and René Riedl (University of Applied Sciences Upper Austria and University of Linz, Austria) – will provide feedback and suggestions based on the nature of the research ideas. Alex Kreilinger (Brain Products GmbH) will demonstrate basics of EEG in a hands-on session using Brain Products' new EEG headset, the X.on. Participation should provide value for PhD students and faculty of IS, computer science, and management. There are no specific prerequisites for participation. English is the course language.

The course uses an interactive teaching approach, and it covers fundamental themes, including the following questions: Why do we need NeuroIS? How to conduct NeuroIS studies? What constitutes a good NeuroIS contribution? The course takes a beginner rather than an expert approach to the material presented, and it is mainly based on the following book: Riedl, R. & Léger, P.-M.: Fundamentals of NeuroIS: Information Systems and the Brain. Springer, 2016. It is helpful to read the following paper on the development of the field in preparation for the course, yet, it is not mandatory: Riedl, R.; Fischer, T.; Léger, P.-M.; Davis, F. D.: A Decade of NeuroIS Research: Progress, Challenges, and Future Directions. *DATA BASE for Advances in Information Systems*, 51/3, 2020, 13-54.

Research ideas can be submitted in English to info@NeuroIS.org – submission deadline: May 5, 2024; please send a WORD or PDF file. Research idea documents may not exceed 2 pages of text and should include author name(s) and contact information, as well as a description of: (1) problem statement, (2) research question(s) and/or hypotheses, (3) intended methods/tools, (4) expected contribution, and (5) key references. Participants should be prepared to present their research ideas at the course (the presentation should last approximately 20 minutes). Based on this presentation, the tutors will provide their comments and recommendations. Based on

this interactive format, it is hoped that participants get a maximum of feedback on their research ideas. Please note that it is possible to participate without submitting a research idea document. To register for the course, please follow the instructions provided at www.NeuroIS.org. If requested, attendees can receive a certificate of participation. This course is a pre-event of the *NeuroIS Retreat 2024,* which officially starts with dinner on June 9.

Tutors

Fred D. DAVIS is Professor and Stevenson Chair in Information Technology at Texas Tech University Rawls College of Business. He received his Ph.D. from MIT, and his research interests include user acceptance of information technology, technology supported decision making, skill acquisition, and NeuroIS. He has been a co-organizer of the NeuroIS Retreat since 2009. His research has been published in MIS Quarterly, Information Systems Research, Management Science, Journal of Applied Psychology, Journal of MIS, Journal of the Association for Information Systems, Information Systems Journal, Computers in Human Behavior, and others.

Pierre-Majorique LÉGER is a Full Professor of Information Systems at HEC Montréal. He holds a PhD in industrial engineering from École Polytechnique de Montréal and has done post-doctoral studies in information technologies at HEC Montréal and NYU Stern. He is the senior chairholder of the NSERC Industrial Research Chair in User Experience (UX). He is the director of the ERPsim Lab and co-director of Tech3Lab. He has published articles in the Journal of the Association for Information Systems, Journal of Management of Information Systems, Information & Management, Technovation, Computers in Human Behavior, PLoS ONE, and others. Moreover, he is a co-author of the book "Fundamentals of NeuroIS: Information Systems and the Brain".

René RIEDL is a professor for Digital Business and Innovation at the University of Applied Sciences Upper Austria and an associate professor for Business Informatics at the University of Linz. Also, he is the scientific director of the NeuroIS Society. He has published in various academic journals, including BMC Neurology, Business & Information Systems Engineering, Frontiers in Neuroscience, Frontiers in Psychology, Journal of Information Technology, Journal of Management Information Systems, Journal of Neuroscience, Psychology, and Economics, Journal of Systems & Software, Journal of the Association for Information Systems, MIS Quarterly, and PLoS ONE. He is a co-author of the book "Fundamentals of NeuroIS: Information Systems and the Brain".

Alex KREILINGER has been working in the field of neuroscience with a focus on brain-computer interfaces (BCIs) since 2008 when he started his Master's thesis at the Graz BCI Lab. Later, he finished his PhD thesis on neuroprosthetic control with motor imagery and error potential detection. Since 2018, he has been working at Brain Products GmbH where he is currently filling the role of Technical Product Manager. In the NeuroIS pre-event, he will demonstrate how easy it is to integrate EEG measurements in your NeuroIS experiments using Brain Products' new EEG headset, the X.on. Participants will have the chance to record EEG in various scenarios, starting at resting EEG, standard behavioural tasks, up to hyperscanning setups. Afterwards, they will be able to analyze their recorded data in different software solutions.