

How users read and apply technical documentation

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Eye tracking is a technology that has been successfully used for many years to study cognitive processes in areas such as reading, text comprehension, or multimedia learning. Quite surprisingly, only few attempts have been made so far to apply eye tracking to systematically study how users extract information from technical documentation and put it to use. This talk describes a new eye tracking paradigm that makes it possible to investigate how users work with technical documentation presented on-screen in a natural “reading-to-do” setting while at the same time enabling accurate recording of eye movement events. We then present applications of the paradigm to the processing of a specific documentation type: software tutorials. Using the Cognitive-Affective Theory of Learning with Media (Moreno & Mayer, 2007) as theoretical basis, the studies to be reported examined which information units in the documentation users attend to and how they coordinate their attention between documentation and software system while executing the procedures the tutorials describe. It is argued that eye tracking provides a powerful tool that can help push forward attempts of technical communication researchers to derive principles of information design that are well-grounded in theory and based on solid empirical evidence.

Short CV



Michael studied German linguistics and psycholinguistics at the University of Jena and the University of Edinburgh. After completing his PhD on syntactic processing during reading, he worked for 12 years as a technical writer and later on as department manager of documentation and localization for an international software company. In 2012, Michael was appointed Professor of Applied Linguistics at Merseburg University of Applied Sciences, where he now teaches courses on text analysis, text production, research methods and usability in the B. Eng. and M. A. programs in Technical Communication. He is member of tekomp Germany and presents regularly at conferences such as the European Academic Colloquium on Technical

Communication, “Write the Docs” or the annual tcworld/tekomp conference.

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