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### **Poster presentation: AI-supported health communication in Plain Language**

According to recent studies in the field of Public Health, over half of the German population indicates having difficulties finding, comprehending, appraising and using health-related information (Schaeffer et al. 2021). The German National Action Plan Health Literacy lists Plain Language as a communicative tool to make health information more accessible to large population groups (Schaeffer et al. 2018). There is a high demand for comprehensibility-enhanced health communication, but few translation resources (Maaß 2020).

To meet the demand for interlingual translations, meaning the translation between natural languages, AI-based translation tools have long been adopted into the interlingual translation process. In intralingual translation, i. e. the translation from one language variety to another, translation tools are still missing. AI-based intralingual machine translation represents a promising tool to support the production of comprehensible texts in the field of health communication (Deilen et al. 2024a, 2024b), but there are numerous research desiderata regarding its implementation, quality of outputs, and post-editing processes.

The project *KI-gestützte Gesundheitskommunikation* (KI-GesKom, AI-supported health communication) is a cooperation between the Research Centre for Easy Language, the German health magazine *Apotheken Umschau* and SUMM AI. Using the AI-based machine translation tool SUMM AI, we compare machine generated Plain Language translations with their source texts and with professionally translated Plain Language texts. We propose a poster to present the research design and results on the levels 1) correctness, 2) readability, and 3) syntactical complexity (Deilen et al. 2023; Deilen et al. 2024a). In terms of correctness, AI-translated texts need (often extensive) post-editing. The analyses reveal not only spelling errors, but also content-related mistakes like incorrect statements or explanations (Deilen et al. 2024b). AI-generated texts have a higher readability than professional translations, but are more syntactically complex (Deilen et al. 2024a). We conclude that AI-based translation tools are useful for the intralingual translation process. However, the translation tools need adequate training data, and the AI-generated texts need to be professionally post-edited.

### **Literature**

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