



Abschlussvortrag Masterarbeit Gordon Brown

„The Effects of Consultant Avatar Size and Dynamics on Customer Trust in Online Consultations“

Within the context of “Project ARBay”, an online platform is under development which is intended to enable customers to receive a consultation at home over the internet. Project ARBay uses online furniture consultations as a use case to develop this system. On the customer side of consultations of this kind, “augmented reality” head-mounted displays are to be used for support. These would enable customers to preview furniture recommended by their consultant within their own homes as virtual content in exactly the spot they are supposed to be placed after the final purchase. For remote consultations of this kind, displaying the consultant as virtual content to the customer as well might prove to be beneficial in some cases. This master’s thesis examines how the appearance of such a representation of the consultant, a 3D “avatar”, influences the trust towards the consultant perceived by the customer as well as their perceived social presence and overall satisfaction with the consultation. In addition, the same aspects are evaluated when comparing different movement dynamics of the avatar with each other. For the appearance comparison, this thesis compares life-sized avatars with miniaturized ones. The consultant avatar dynamics compare avatars that directly mimic camera movement inputs of the consultant by shifting their gaze direction and/or position within the customer’s living space with avatars that remain mostly static safe for always keeping eye contact with the customer, if possible. For evaluating these configurations in a 2x2 experiment, two prototypes were implemented, of which one was used each by the consultant and the customer to conduct a mock remote consultation with the goal of buying a couch for a living room replica. Following each mock consultation, the customers were asked about the amount of trust and social presence they felt towards their consultant, as well as their overall satisfaction with the consultation. Additionally, video recordings captured during the experiments were examined for the number of gazes towards the consultant avatar and the total duration of said gazes, as well as for recurring movement patterns of the customers within the room. First results show a significantly higher social presence rating when using a life-sized avatar compared to miniaturized avatars. The total amount of gazes towards the consultant avatar provide similar results when comparing life-sized, dynamic avatars to miniaturized, static ones. No significant differences were found for the other aspects (trust and satisfaction). Comparing avatars with the same size but differing dynamics also did not yield any significant differences for all examined aspects. However, all participants of the study preferred dynamic avatars over static ones if they featured the same size. Based on these results, the thesis provides design recommendations for systems intending to use avatars in a similar manner, as well as possible research directions for future research which might provide more accurate or more realistic results



TU Clausthal

Datum:

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Ort:

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