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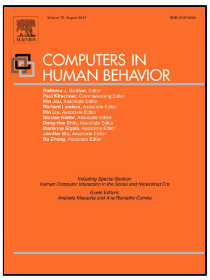

Ageism – Age coherence within learning material fosters learning

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Abstract

Pedagogical agents are frequently used in digital learning environments. On the basis of the computers-as-social-actors paradigm (CASA), learners do not differentiate between the interaction with these characters and any other social interaction. Therefore, the appearance of pedagogical agents is vulnerable to stereotyping mechanisms such as ageism. In addition, research suggests that the activation of stereotypes also depends on the context of accompanying verbal information. In this study, participants were randomly assigned to one cell of a 2 (stereotype of the agent: young vs. old) × 2 (stereotypical priming within the text: young vs. old) between-subjects factorial design in order to examine if stereotypes impact learning processes. In addition to retention and transfer scores, cognitive load and motivational data of learners were collected. Results revealed that transfer performance is only enhanced when agents and texts activate together either old or young stereotypes, whereas retention performance was not affected by the manipulation. In addition, the manipulation did not result in differences in any cognitive or motivational scores. The results can be explained by the coherence principle which postulates that information from different media should be congruent in order to foster process fluency.

Keywords: stereotypes, ageism, educational video, pedagogical agents, multimedia learning