The attention–attractiveness tradeoff in chatbot anthropomorphism

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Anthropomorphic design cues are widely used in chatbot interfaces to enhance engagement, yet prior research relies mainly on self-reports, offering limited insight into underlying cognitive processes. This research adopts a multi-method approach to examine how chatbot anthropomorphism shapes visual attention and perceived attractiveness in e-commerce. Study 1 uses eye-tracking to compare robot-like and human-like chatbots within the same interface. Results show that robot-like chatbots elicit longer fixation durations and longer first fixations on the avatar, indicating greater early interpretative effort and lower processing fluency than human-like chatbots. Study 2 complements these findings with a 2 × 2 online experiment manipulating anthropomorphism and gender cues. Human-like and female chatbots both increase perceived attractiveness, which drives usage intention. These effects are additive rather than synergistic. This research challenges assumptions of uniformly positive anthropomorphism effects, showing that "more human" can attract less attention yet foster stronger attractiveness and engagement intentions.

Keywords: Chatbot anthropomorphism; Visual attention; Human–AI interaction; Chatbot attractiveness; E-commerce.