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Manipulating Interest to Study Attentional Control in Web-Based Information Seeking

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Abstract

Web-based information seeking requires learners to regulate attention across heterogeneous sources. While interest is known to influence engagement, it is often treated as an uncontrolled background factor. This study examines how experimentally induced differences in interest relate to observable search behavior in a web-based report-writing task. Twelve undergraduate students completed two search tasks designed to elicit relatively high or low interest by manipulating topic and difficulty based on optimal stimulation principles. Interest was assessed using self-report measures before and after each task. Behavioral logs, including search frequency, dwell time, and visited domains, were analyzed alongside exploratory semantic similarity measures derived from page content embeddings. Results suggest that task characteristics are associated with initial interest levels, and that self-reported interest may change over the course of task engagement. Differences in behavioral patterns were observed across interest profiles, indicating that motivational state is related to variation in attention allocation during information seeking.