

Graphical Displays for Online Information Seeking

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Abstract: This research explored the impact of graphical displays on individuals' cognitive processes and online behaviors during information search and retrieval. Cognitive science research has demonstrated that a well-organized, conceptual knowledge organization is a key difference between experts and novices. One method to help novices move toward more expert-like performance may be to provide them with visual materials that support the development of an organized representation of domain ideas. In this research, participants used graphical versus keyword interfaces to complete searches for online educational materials; usability software was used to record participants' on-screen interactions and think-aloud protocols. Results demonstrated that the graphical interface changed overall patterns of search behaviors and promoted deeper, domain-related processing during search and evaluation. These findings demonstrate that graphical displays can impact online, self-regulated learning, likely by providing a well-organized structure of domain concepts that facilitates meaningful evaluation and more effective planning during online information seeking.