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Transition between different search patterns in human online search behavior¹ XIANGWEN WANG, MICHEL PLEIMLING, Virginia Tech
— We investigate the human online search behavior by analyzing data sets from different search engines. Based on the comparison of the results from several click-through data-sets collected in different years, we observe a transition of the search pattern from a Lévy-flight-like behavior to a Brownian-motion-type behavior as the search engine algorithms improve. This result is consistent with findings in animal foraging processes. A more detailed analysis shows that the human search patterns are more complex than simple Lévy flights or Brownian motions. Notable differences between the behaviors of different individuals can be observed in many quantities.

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