(a) Marchionini's (1995)
information seeking process (ISP) model

Default Transitions
High Probability Transitions
Low Probability Transitions

(c) Vakkari's (2016) information search process model

Each search strategy may consist of one or more cycles [one or more search commands ending in the display of retrieved items (Fenichel, 1981)]. Each cycle may consist of one or more interactive feedback occurrences (user input, IR system output, user interpretation and judgment, user input). An input may also represents a move within the search strategy (Fidel, 1985) and may be regarded as a search tactic to further the search (Bates, 1981). Each move consists of a user input or query requesting a system's output.

Therefore, an interactive search process may consist of a series of search strategies made up of one or more cycles, and one or more interactive feedback loops within each cycle. An interactive feedback may include one or more moves or search tactics, and user interpretations or judgments of the systems output. Interactive feedback facilitates communication between user and IR system, and is related to the situational and cognitive state of the user. Interactive IR is, in part, situationally constructed as a series of interactive feedback loops.

(b) Spink's (1997) model of the IR interaction process