Exploratory Web Searching with Dynamic Taxonomies, Results Clustering and Visualization

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The general objective of this dissertation is to elaborate on methods and techniques for exploring and progressively refining large volumes of heterogeneous information, through the provision of appropriate models of interaction and visualization techniques. The goal is to support advanced in accuracy and completeness answers, appropriate for supporting decision making, while the user is not obliged to formulate complex queries or to use specific user profiles. Instead, it will be attempted to provide user with "all" beneficial options to adjust or restrict the information received, in a summarized, concise and intuitive manner. The navigation should provide appropriate data visualization techniques, in order to exploit the ability of the human brain for rapid understanding and perception of visual information, and the ability to discover standards and relationships through it.