Abstract

There are various new applications of genetic algorithms to information retrieval, mostly with respect to relevance feedback. However, they are yet to be evaluated in a way that allows them to be compared with each other and with other relevance feedback techniques. There is always need to efficiently store and retrieve image data to perform assigned tasks and to make a decision. This paper presents a new image retrieval framework with two types of relevance feedback i.e., implicit feedback in combination with explicit feedback. This paper employs Interactive Genetic Approach to discover a combination of descriptors that better characterizes the user perception of image resemblance. This approach provides better management and retrieval of images than the keyword-based approach. However, most of the conventional methods do not have the capability to effectively incorporate human interaction and emotion into retrieving images. In order to solve this problem, we have developed an image retrieval system based on human preference and emotion by using an interactive genetic algorithm (IGA). In this approach, we used two-tier architecture of implicit and explicit feedback with IGA. Therefore, this system facilitates the search for the image not only with explicit queries, but also with implicit queries.
References


Index Terms

Computer Science
Artificial Intelligence
Keywords
Relevance Feedback (rf) Geneticalgorithm (ga) Image Retrieval (ir)