Abstract

Web caching is a technique which is used to reduce user perceived latency when user is accessing the Web pages. Web pre-fetching is a scheme where Web pages are pre-fetched into the intermediate server (proxy) cache before user accessing it. These two techniques can complement each other since the Web caching exploits the temporal locality, whereas Web pre-fetching utilizes the spatial locality of Web objects. In this paper, we developed modified ART1 neural network to pre-fetch Web pages into the proxy cache. We have also empirically shown the performance of proposed work with the existing ART1 based pre-fetching. By using this approach the hit rate of the cache increases, which in turn reduces the user perceived latencies.

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Index Terms

Computer Science
Information Sciences

Keywords
Web Pre-fetching  Web Caching  Latencies  Web Log Mining  Work Load Matrix