Abstract

From the last few decades, we have witnessed an explosive growth in the information available on the World Wide Web (WWW). Today, web browsers provide easy access to myriad sources of text and multimedia data. More than millions of pages are indexed by search engines, and finding the desired information is not an easy task. The users want to have the effective search tools to find relevant information easily and precisely. The Web service providers want to find the way to predict the users’ behaviors and personalize information to reduce the traffic load and design the Web-site suited for the different group of users. This profusion of resources has prompted the need for developing automatic mining techniques on the WWW, thereby giving rise to the term “web mining.” The analysis of Web log may offer advices about a better way to improve the offer, information about problems occurred to the users, and even about problems for the security of the site. The key component of this paper is a Web-mining approach for Web-log analysis via introducing ART structure [1] for huge, widely distributed, highly heterogeneous, semi-structured, interconnected, evolving, hypertext information repository of World Wide Web. So, the Web sites automatically improve their organization and presentation by self-learning.

**Index Terms**

Computer Science  
Artificial Intelligence

**Keywords**

ART (Adaptive Resonance Theory)  
attention-subsystem  
orienting-subsystem  
Web log  
Web mining  
Web usage (web-log) mining