ARTICLE TOPIC:

“Analytical Trends and Practices of Web Intelligence”

ABSTRACT:

The web has created a revolution nowadays by its continuous variations. As the amount of data and information is increasing day after day, its effective usage is also mandatory. For this purpose, Web Intelligence (WI) is the well-known and important research filed. Some of its trends, practices, techniques and analytical procedures are summarized in this paper.

INTRODUCTION:

Web has influenced the everyday life by providing the opportunities in areas like, education, commerce, etc. Web Intelligence (WI) is combined from Artificial Intelligence, Web Data Mining and Web Semantics. WI provides theories and technologies related to web and enables the utilization of data in an effective way. The practical goal of WI is development of intelligent web information systems.

LITERARY SURVEY:

Web Intelligence has become an emerging research field since 2000. Google Scholar reveals 569 results when searched for an exact phrase “Web Intelligence” as title of the articles. This analysis indicates that this research field is growing rapidly.

RESEARCH TRENDS:

i) Semantics Of Web:

Semantics of Web is a technology that helps perceive smarter web and WI. It allows to utilize all the data of web pages, to gain knowledge and apply logical mapping. It consists of Ontology (description of concepts and relationships) and Multi-Agent Systems (multiple interacting intelligent agents within an environment)

ii) Collective Intelligence:

Collective Intelligence has three dimensions i.e. coordination, cooperation and cognition. It focuses on generating techniques to increase situation awareness, developing intelligent information integration, Recognizing tactics for intelligent ratings, and Clustering to find similar types of users.

iii) Cyber Intelligence:

Utilization of data intelligently can lead to use it for different purposes due to which “Negative Intelligence” may occur. To get rid of this, “Positive Web Intelligence” is used by means of web based social guidance and counseling.

iv) Web Mining:

To produce implicit information from web, the process of analyzing and mining the web called Web Mining can be performed. Intelligent tools such as web agents are used for information retrieval. Web usage mining applies data mining techniques to discover interesting usage patterns from web data that helps in targeted marketing for e-commerce.

v) Content Analysis:

Content analysis is applied to differentiate categories of posts available on social media. Opinion analysis and Sentiment analysis are the research fields that are rapidly growing.

vi) **Web Intelligent Agents:**
Web Intelligent Agents are software programs that help in exploring web based services and presenting web generated regularities.

WEB INTELLIGENCE TECHNOLOGIES:

The technologies of WI divide into four levels. Internet Level, Interface Level, Knowledge Level and Application Level. Developing intelligent web interfaces, semantic web languages, and ubiquitous computing, etc. are the main research areas in these mentioned levels. The thus formed wisdom web should be with capability of self-organizing servers, specialization, growth, semantics, personalization, etc.

CONCLUSION:

There can be two kinds if Web Intelligence, Positive and Negative. If the web intelligence is achieved for the human development, personality development, etc. then it is positive web intelligence. In contrary sense it is negative web intelligence. This research aims revealing all the trends of WI to develop positive web intelligence thus promoting human and social development.