Multiple Aggregator scheme for the Multimedia content extraction and utilization

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Abstract:

Content aggregation and multimedia data analysis takes a huge part today. While working with multiple data format and data identity, its integrity there are few components need to be extracted and monitored via different available medium. Various feature and data extraction performed by different type of aggregator technically. Current scenario make use of single aggregator and perform with number of content available for the extraction, it cause lot of execution time and thus low performance with the required dimensions. In this paper a work algorithm which is based on the multiple aggregators performed on single set of data or multiple data is performed. The experiment conducted on the locally stored dataset as well as online content available dataset. Which is executed by both the aggregator methods and further workbench is designed using Java API. The execution result was monitored and it is observed as the proposed algorithm outperforms at best compare to existing protocol.

Keywords: Content aggregator, Multimedia extraction, feature observation, content monitoring, aggregation evaluation.

Introduction:

An aggregator is a collection of the data which contains data from different fields and provide a centralized access for that data. In existing techniques a single aggregator is

used to do that task but that not able to provide desired performance to search that data. Thus is this dissertation a new technique which first divide data into different fields and then apply that online distribution based method to aggregate that data. That provides an enhanced framework to access that data and also increases the search efficiency.

Content Aggregator

Aggregators are either a website or computer software the data on the basis of the features and information. That helps to suggest data to the users for their searches. There are various types of aggregators which used to aggregate data from different fields or categories.

There are various types of aggregators like:-

Data Aggregator:- In that data is collected from the database storage, then datasets are generated to provide as a input for various data processing applications or data analysis, like in public records or criminal databases. That aggregated datasets provides an enhanced functionality for the data processing.

Video Aggregator [1] [2]:- Video aggregators are the aggregators which are used to organize videos from the different online sites and provide a centralize system to access these videos. There are many video aggregators like YouTube, videosit, daily motion etc, that used to provide videos to the user.

Search Aggregator[3]:- Search aggregator is the type of search engine which contains meta-search data which combine search from various search engines. It uses user's

previous search feeds to provide control over the content by the aggregator.

Social Network Aggregations:- It is the process of collecting content from various social network sites like YouTube, Facebook, Instagram etc. to provide an aggregation for the social media content into a single presentation.

Literature review

There are different work is performed with related to content mining and aggregation by authors, here are few latest work described which is considered as further research.

CemTekin, Mehaelavan Der Schaar [4], the huge growth in multimedia content in last decade. That data generated by multiple sources which is generated in heterogeneous form because data is generated by different resources that generate variety in the data which make difficult for a user to get on demand data. In this paper a distributed online matching based content aggregator is present which gathers data from different resources and suggest user data in context of their search.

ReolandOrdelman, Fransiciska De Jong, Martha Larson [6] in this paper semantic speech retrieval based technique is presented which provide a way to access multimedia

data. This technique focuses on automatic speech recognition and spoken document retrieval, this technique is used for multimedia access.

Alberto Messina, Maurizio Montagnuolo [7] this paper presents a cross model technique is used to aggregate multimedia, data in this technique semantic relevance is use to retrieve data, in semantic relevance measures that how secondary items are relevant to the information needed by primary items. Cross model able to generate these semantic relations in these distributed heterogeneous data and retrieve information or multimedia data.

Sameer Amir, PetrikBlandin, Laon Marius Bilasco, Chabane Djeraba [8] in this paper a generic metamodel called CAM model is presented. In that model a framework is presented that merges all the information about the content, services, physical, technical environment to provide homogenous access to the content.
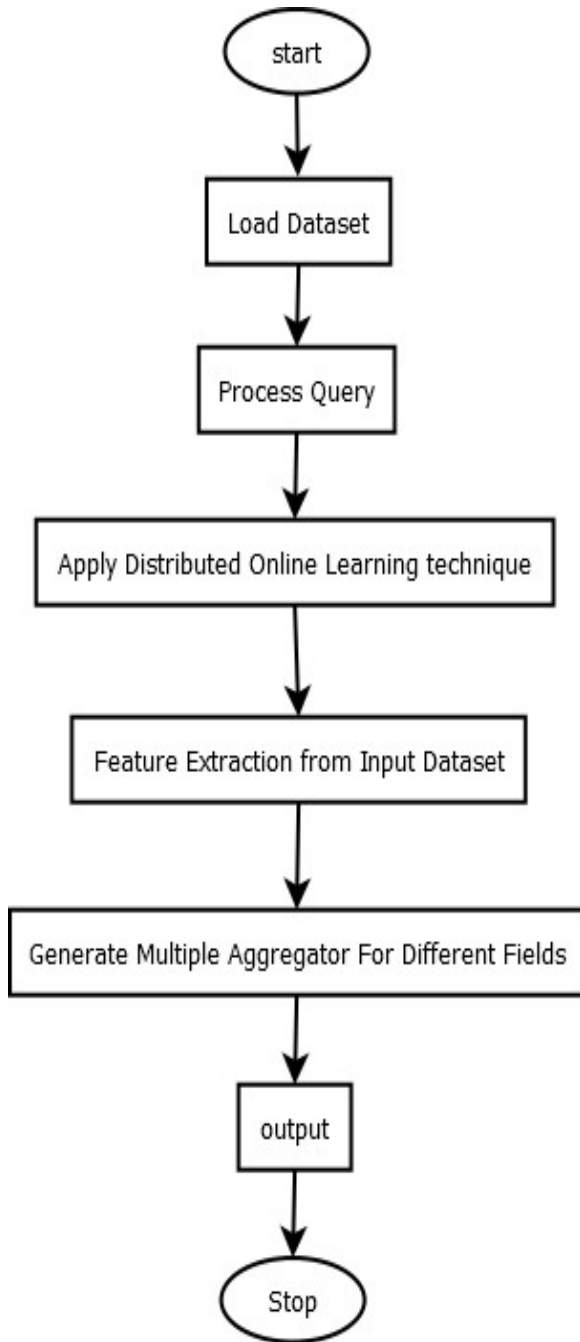
A study on various techniques which used to provides content aggregation for various applications like data analysis, to analyze data an aggregated dataset is used.

Existing algorithm collaborative filtering approach , which is able to extract the features and content   aggregation from single point of view.

Proposed Methodologies

In existing A enhance technique is presented by the [4]. In that technique a CA to CA learning process is presented. In that a CA (content Aggregator) can read data from other aggregator rather than the main source. That reduces the time to access data. But in that technique a single aggregator is used which is not enough to provide desire performance as required. Thus a new enhanced technique, a multiple content aggregator based technique is presented.

Input: Query Image, Dataset, CA.

Output: Query Output.

Steps

  Start

   Load complete dataset (i= 0-n)

for (int i=0;n)

   {

   Load (i);

   }

for (int i=0;n)

   {

  Process query using distributed online learning, Generate aggregator for different fields.

}

for (int i=0;n)

   {

Feature extraction from the all input data sets

Return: output

}

End;

A online distributed learning based technique is used which provides an enhanced aggregation for the data. In that a multiple aggregation based technique is presented, which provide an enhanced functionality to access content.

Flow-Diagram For Proposed Technique

Proposed Algorithm

Experiment and result Analysis

Content aggregator provides an easy way to search content because it provides an easy and centralized access for the data which resides in different resources. A description over the proposed technique is presented in this dissertation. In that, To implement proposed technique a JAVA language over NETBEANS IDE is used. A result analysis for the proposeed techique is also presented in this dissertation which shows that proposed techique provides an enhanced funtionality to search.

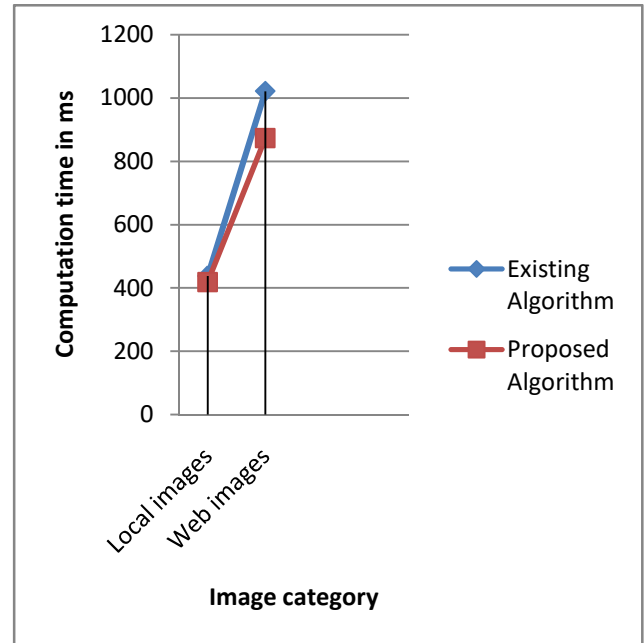| Parameter	Collaborative filtering	MPTCF Multi phase threshold CF
Computation time in ms(Local images)	438 ms	419 ms
Computation time in ms(Web images)	1021 ms	873 ms
Precision %	89%	91.23%
Recall %	86.65%	82.90%
Accuracy %	92.42%	93.11%
Detection Rate %	89.23%	90.09%

Table 1: Result comparison with processing time and other parameters.

Fig 1: Comparison Analysis Graph.

The above result table and graph formulation shows the actual result , hence the improvement can be monitor in terms of processing between the algorithm.

Conclusion & Future work

Content aggregator is the process of collecting data from various sources which contains useful information and provide a centralize system to access that data. An overview over the various types of content aggregator and their application area where these techniques are used is presented in this paper. The paper covered the experiment performed and the proposed methodology

over the existing single aggregator scheme. The experiments were conducted on Java Framework platform and the observation result computation time monitored using same dataset and over both the technique. As per the observation, it is monitored that the proposed algorithm gives a less execution time and thus high performance while comparing with the existing single aggregator scheme. A further extension to the work can be performed by working with more enhance form of multimedia and applying our scheme on it. A further implementation can be done on Video format of content and observe the performance of multiple aggregator scheme.

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