Audience Interest Analysis based on the Feedback of IPTV Users

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ABSTRACT
The assessment and analysis of public opinion and people’s interest in various topics have been highly important for decades. Every major social, economic or political decision process relies on tapping the pulse of the public opinion through time, and tries to adjust based on the feedback. In this work the focus is on channel change events (CCE) generated by the viewers. CCE data can be represented by a time series vector; it hides a wealth of user behavior information, as each channel change event is motivated by a combination of viewers interests and content context. The key challenge addressed in the paper is to demonstrate how the users inter actions with the IPTV service can be efficiently used to gauge the public interest on a specific topic at a large scale. To address the challenges of using an implicit feedback event stream of an IPTV system to infer public interest and opinion on a large scale, proposes a framework that leverages a variety of research domain.

Keywords
Individuals, mining, input, curation, assessing, IPTV, channel change, responses

1. INTRODUCTION
Internet Protocol Television (IPTV) is a framework through which Internet TV administrations are conveyed utilizing the design and systems administration techniques for the Internet Convention Suite over a bundle exchanged system foundation e.g the Internet and broadband Internet get to systems, rather than being conveyed through customary radio recurrence communicate, satellite sign, and digital TV designs. TV experiences an extreme change from unidirectional telecom to Internet-associated. The new test is specifically featured in how to convey a universe of substance to any gadget, whenever, anyplace .Internet Protocol Television (IPTV) is equipped for conveying rich set administrations alongside excellent TV content through Internet Protocol (IP) systems. The utilization of IP organizing suggests that media situated communication, satellite sign, and digital TV designs. TV change, responses will be fast and easy to use. In this venture the emphasis is on channel change events (CCE) produced by the viewers. CCE information can be spoken to by a period arrangement vector; it shrouds an abundance of client conduct data, as each channel change occasion is persuaded by a combination of watcher's interests and substance setting . The key test tended to in the venture is to show how the clients’ communications with the IPTV administration can be efficiently used to measure the open enthusiasm on a specific subject at an extensive scale. The principle commitments of this paper are: The proposition of a structure for surveying the clients understood positive and negative input as for the channel change events. Presentation and investigation of a model usage of the depicted system. The actualized technique depends on learning and permits the estimation of the open enthusiasm on a specific theme and examination of intrigue between themes. The proposed methodology can likewise be reached out in various ways to permit progressively expand use cases.

2. METHODS
2.1 The Feature set selection
The feature set selection part of the framework is the base part of the system. Feature set must choose in such a way that it must be fast and efficient to reach a conclusion after performing data analysis on the features. The features collected are uid, main uid, starttime, stoptime, channel, channelid, program etc.
2.2 Data Analysis
Data analysis includes from the chosen features selecting the appropriate information. For example, programs with view count less than fifty will be discarded and channels with view count less than hundred will be discarded. For analyzing the user behavior through graphs only consider the chosen information.

2.3 User Behavior Analysis
Once the features are collected, System performs data analysis and based on these data, predicts the user interest. Results of these analysis are draw as graphs that is having very much relevance in predicting user behavior. Firstly compared the analyzed channel change events and the watched channels and drawn the graph of channel VS channel usage. The total channel view count greater than 100 then only considered that channel for plotting the graph. Secondly compared the analyzed channel change events and the watched channels and drawn the graph of Trending Programs VS channel usage. The total Program view count greater than 50 then only considered that channel for plotting the graph. Lastly compared the analyzed watched channels on monthly basis and plotted the graph of monthly channel usage. The months from Oct- Mar is considered for plotting the graph of monthly report.

Fig 1: Flow chart of the proposed system

3. RESULTS AND DISCUSSIONS
To demonstrate the usability of implementation of the proposed framework collected features from IPTV Dataset. The features collected include uid, main uid, start time, stop time, channel, channelid, program etc. of IPTV Dataset of different time periods are compared and analyzed. Based on these analysis plotted bar graphs. Firstly plotted a graph for analyzed trending channels and it’s usage. Then plotted a graph for trending programs and its viewers. Lastly plotted graph for the time period from October 2011 to March 2012. Analyzed the monthly popularity of watching the channels and found that in the month of November is having high IPTV usage.

Fig 2: Channel VS Usage graph
4. CONCLUSIONS
In this project, presented a novel framework for public interest and opinion analysis based on IPTV user behavior. Project presented the basic framework components and provided their desirable properties and functionalities and further described a possible implementation of the framework in detail. The presented Dataset was analyzed and the results showed its usability as the public interest measure. The future work will focus on the crowd-sourced data collection and mining of the IPTV network-based event data. The research will be divided into small segments, described in the framework section. The first segment of the improvement of the system is in the data collection part, where program information will be added for broader range of transmissions. The second part of the future work will focus on improving the language model. The last part of the improvement is analysis of various evaluation algorithms. Another very important task left for future study is the mapping of the implicitly collected public interest measure into a credible and reliable public opinion measure. All of the above mentioned future tasks involve interdisciplinary and multidisciplinary research.

5. REFERENCES
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