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System For Providing Push Media Notifications Meeting Search Criteria

Vincent Dureau

Jonathan Wald

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SYSTEM FOR PROVIDING PUSH MEDIA NOTIFICATIONS MEETING SEARCH

CRITERIA

ABSTRACT

A system and method are disclosed for providing push notifications on TV and movie content meeting set criteria based on categorical queries. The system considers queries recently issued by users, runs them offline, and identifies any new additions to the result set. The system either responds to specific user interest in receiving updates or infers relevance to decide whether or not to send a push notification to the user. The system calculates a score and sets threshold values above which a notification is sent to the user. The notifications could be sent by email, bite-sized alert, operating system (OS) alert or other common notification method.

BACKGROUND

Users often need to discover new TV and movie content that speaks to their specific interests. Increasingly, users are turning to search engines and other digital sources to provide recommendations and lists of programs that meet their search interest criteria. For example, if a user is interested in “comedies that are on a specific streaming site and are critically acclaimed,” then the search engine automatically outputs a list of TV programs falling in the same category. However, TV and movie schedules and availability changes so quickly that users have to continue searching or checking online sources even while deciding to watch. When a new video or TV show meeting a recent query is released, the user has no means of becoming aware of the new result without re-issuing the search query with the same criteria. Thus, there is a need for a better method to discover new content that is highly relevant to the user.

DESCRIPTION

This disclosure presents a system and method for providing push notifications on TV and movie content meeting set criteria based on categorical queries. The push notifications are sent as updates to the query, by email, bite-sized alerts, operating system (OS) alerts or other notification services that meet a threshold of relevance.

The system works by first tracking categorical queries issued by the user, and any filtering done by the user in the user interface (UI) is considered as part of the query. For example, there may be records that a user has searched for new comedy TV programs and critically acclaimed dramas on internet streaming media.

The system runs the tracked queries offline, and identifies any new additions to the result set. The system then uses one of two signals to decide whether or not to send a push notification to the user with the new results:

1. explicit interest – the user is presented with an affordance at query time that allows him/her to explicitly request updates to the search
2. implicit relevance – the user has not specifically asked for updates, but the system infers that it may be relevant to the user based on a number of signals.

If the user has explicitly requested updates to a search query, any of the new results uncovered by running the query offline are immediately sent to them through push notifications. If the user has not explicitly requested updates, a decision as to update the user i.e., that the update is implicitly relevant is made by considering the following variables:

- w: specificity of query: size of the original result set that the user received
- x: explicit engagement by other users for the same query: how often did other users request updates for the same criteria set
- y: frequency of the same or similar queries: how often does the user issue the same query or similar queries

z: ranking of the movie within the result set if the user re-issued the query right away

This is essentially a proxy for a number of other signals that could be integrated directly, for example, quality of the entity according to 3P ranking, popularity in search, notoriety within a set that is a component of the search criteria, etc.

The system then calculates a score j , where $j = (x*y)/(z*w)$, and sets threshold values for j above which a notification email is sent to the user. The threshold is manually or algorithmically identified, for example, by looking at engagement with notifications as a function of j . In one implementation, x , y , z , and w may be weighted by coefficients in the calculation of j .

Advantages of the system and method are that the user does not need to repeatedly issue queries to discover new content, and they don't even need to explicitly request these updates. Thereby, the method offers an effortless manner of discovering new content of interest to users.