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Keyword Feeder

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ABSTRACT

Key word feeder project is a survey paper which studies the methods of creating useful information from the web by given a keyword or multiple keywords. In this project we are surveying how the algorithms work for a keyword feeder. We are going to research on the different keyword feeders and the work flow of specific feeder. By studying all these data, we will be giving a survey report paper on the keyword feeder.

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1 Project Description

Key word feeder project is a survey paper which studies the methods of creating useful information from the web by given a keyword or multiple keywords. In this project we are surveying how the algorithms work for a keyword feeder. We are going to research on the different keyword feeders and the work flow of specific feeder. By studying all these data, we will be giving a survey report paper on the keyword feeder.

1.1 Competitive Information

The target is to get the quality products below the market price. As this is a charitable project, the monetary award is well below market price, but this opportunity provides a critical entry point to doing business with this international company.

1.2 Relationship to Other Applications/Projects

Relate our product features with other company's product's cost/durability/feasibility/limitation/lifetime etc.

Identify whether this feature relates to other features and/or other products. You are mainly focus on DB portion for the project; other part of the project (e.g., Web interface, network capacity) will be done by other team/company.

1.3 Assumptions and Dependencies

- To inform, support and notify all possible needed recipients, they will work with all local charities, foodbanks, churches, shelters, Medical Clinics, Legal Services, Schools, etc, to help support this new organization.
- To promote this new organization and associated programs, continue public promotion to solicit donation from public and private sectors will also need to be planned and tracked.
- A small army of employees, professional, and volunteers will be recruited, hired and trained, thus need to be planned and tracked as well.
- Target market should be homeless and low-income families only at this time.

1.4 Future Enhancements

The current version of the survey paper will be improved in next phase and some enhancements will be done in web application to attract more customers, the capacity of people soft database will be improved, development of code will be done according to new offers and also change in existing ones.

2 Project Technical Description

Key word feeder project is a survey paper which studies the methods of creating useful information from the web by given a keyword or multiple keywords. In this project we are surveying how the algorithms work for a keyword feeder. We are going to research on the different keyword feeders and the work flow of specific feeder. By studying all these data, we will be giving a survey report paper on the keyword feeder.

2.1 Interactions with other Applications

The database should be linked to local manufacturing company to get raw materials
Technicians should be required to get devices installed.

2.2 Capabilities

The database should be able to perform following operations:

Retrieving/adding/deleting/updating employee, customer data

Update changes in offers on website in time

Billing and Marketing

Routine backup should be done on particular time to save data

If the database is down, then recovery management should be done by proper personal.

Maintenance activities must should be done.

Provide a list of the capabilities need to support this feature. The database must provide capabilities to support business application such as retrieving/adding/deleting/updating employee, customer, cable service, internet service, and phone service data. Payment plan, Billing, Marketing, System security, data integrity audit, routine backup, fault recovery, system update and other associated business and maintenance activities must also be considered to support customer's day-to-day database applications.

2.3 Risk Assessment and Management

The data may be lost before back up to reduce this an auto backup should be done for very small intervals of time.

The website may be out of service due to large amount of viewers so for this an appropriate operation should be done.

During database recovery and clean up transactions through pay pal may be failed to reduce this an alternative database should be created.

Load on the database may occur because of multiple users trying to access the same data field

3 Project Requirements

Information Model Requirements

- Querying and Reporting Requirements
- System Level Operations and Process Requirements
- User Level Operations and Process Requirements
- User Interface Requirements
- Technology Requirements
- System Maintenance
- Performance
- IT Considerations

3.1 Identification of Requirements

Key word feeder project is a survey paper which studies the methods of creating useful information from the web by given a keyword or multiple keywords. In this project we are surveying how the algorithms work for a keyword feeder. We are going to research on the different keyword feeders and the work flow of specific feeder. By studying all these data, we will be giving a survey report paper on the keyword feeder.

Facebook News Feed:

The Facebook News Feed algorithm (formerly known as 'Edge Rank ') decides which news/content streams are displayed on the main page of any user Facebook account. Let's start with some definitions by the Facebook Help Center

Edge:

Edge is a variable in Edge Rank algorithm. There are three variables or edges in this algorithm. Depends on these variables values the post or feed would get high priority among all remaining posts. These edges values will be varied time to time, events, clicks, views and etc.

The below information will be explaining the Edge Rank algorithm how it varies time to time on decision making of feeds.

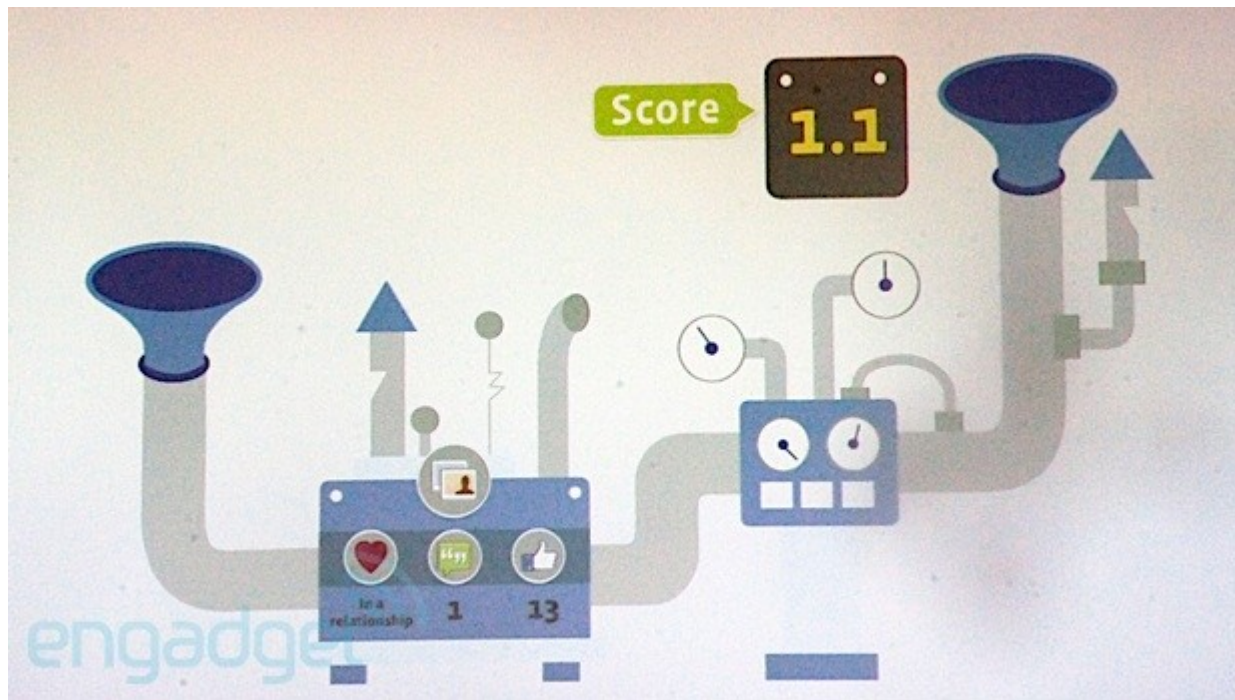
What is News Feed:

News Feed - the center column of the Facebook home page - is a constantly updating list of stories from people and Pages that you follow on Facebook. News feed stories include status updates, photos, videos, links, app activity and likes

How does my News Feed determine which content is most interesting?

The News Feed algorithm uses several factors to determine top stories, including the number of comments, who posted the story, and what type of post it is (ex: photo, video, status update, etc.).

If you feel you're missing stories you'd like to see or seeing stories in your News Feed that you don't want to see, use the different News Feed controls to adjust your settings.



The 'News Feed' (formerly 'Edge Rank') algorithm governs what is displayed - and how high - on the News Feed (the center column on the main Facebook Page of any user). The Facebook algorithm is based on three basic variables

i. Affinity:

Affinity is a one-way relationship between a User and an Edge. It could be understood as how close of a 'relationship' a Brand and a Fan may have. Affinity is built by repeat interactions with a Brand's Edges. Actions such as Commenting, Liking, Sharing, Clicking, and even Messaging can influence a user's Affinity.

Affinity is the edge which evaluates the importance of news in the Facebook.

Based on this edge the Facebook feed news will decide particular brand is popular in the news.

For example, If Ferrari launches a new car then Facebook users will be liking, commenting, clicking, sharing on this event hence it will become news.

By using this edge Facebook feed news can create news for a player who has been playing well and the Facebook feed news will create this popular news.

For example, if Messi has been playing well for football world cup then people will be commenting, liking, clicking, sharing on this news hence become popular news.

This edge can make a news as popular news when Awkward things like bomb blasts, famous people's murder.

ii. Weight:

Weight is a value system created by Facebook to increase/decrease the value of certain actions within Facebook. Commenting is more involved and therefore deemed more valuable than a Like. In the weighting system, comments would have a higher value than a Like. In this system all Edges are assigned a value chosen by Facebook. As a general rule, it's best to assume Edges that take the most time to accomplish tend to weigh more.

As per Facebook edge rank algorithm the events like, share, comment, click, messaging, views got different weights.

These events are prioritized or sorted based on their weights.

For instance, comment got the more priority or weight than like. If, some news got more likes in the other news got the almost same likes and also more comments then the second will be most top news since comment got the more weight. The highly viewed video will be top news video.

In Ever user's Facebook also the most commented event will be appeared top follows most liked event.

For example, A, B, C, D are mutual friends and A Liked B's post next A Commented C's post in this case user D can see C's post top then B's post. So, this criterion will be used for all Facebook users around world and shows the top posts of their mutual friends.

iii. *Time decay:*

Time Decay refers to how long the Edge has been alive; the older it is the less valuable it is. Time Decay is the easiest of the variables to understand. Mathematically it is understood as $1/(\text{Time Since Action})$.

As an Edge ages, it loses value. This helps keep the News Feed fresh with interesting new content, as opposed to lingering old content.

This edged used to gets the latest news.

When some feed is getting old that will be measured by this edge and holds the time decay value.

For example, if some Facebook user liked a old post then it will get new time decay value and it will be appeared top on Facebook. This criterion will be applied same for Facebook feed too.

Facebook News Feed Algorithm Formula:

$$\text{EDGERANK} \sum_{edges e} u_e w_e d_e$$

u Affinity score between viewing user and edge creator

w Weight for this edge type (status, comment, like, tag, etc.)

d Time Decay factor based on how long the edge was created.

There are no fixed values for these variables for a particular news or post. The values will be varied depends upon the corresponding edges. For instance, if a feed got like then it will get some affinity value and for the same one if it got comment it will get the extra affinity value to the previous.

In case of the weight different entities got different values if it is video got a view it will be added to the current like and comment weight and total will the summation of all like, weight and view weights.

In case of time decay one feed get less value once it is getting aged. So for a particular feed this edge will be decreased the value of the feed while getting decayed.

The final popular news feed would be decided by these all edges values and will be appeared on the Facebook depends on the summation these edges values. Hence the formula is also saying the same.

There are few situations for cross valuating these three variables or edges

For instance, for a particular post or feed it got good affinity and got good weight but it is an aged post or news feed. Even though it will be considered as popular post hence it got two good values of edges.

For example, some player is consistently playing for a particular league. Then all users will be talking about that player hence it is an aged news but it will be considered as a top news.

On the other hand, some post got good affinity and is fresh news but does not get the good weight. Though it will be considered as top news hence it is a recent activity.

Bomb blasting is the best example for this case. In this case it is a recent activity but does not get good weight though it just happened

The last case is some feed got good weight and time decay but does not get good affinity is also considered as top feed. Cause It got good weight and is a recent activity.

Some controversial videos will not be getting good hits but will get good views and is a recent post.

If you ask among the three cases what is the top feed, the answer is it depends upon the summation of all edges values and will be appear as top news feed.

While much of what is shown in the Facebook News Feed depends on the (automatic) algorithm, users also do have some level of control of what they see in their news feed (while pointing out that many Facebook users might not be aware of these features and/or their effects on the News Feed content shown):

1. Sorting stories (i.e. content shared on Facebook)
2. Filtering by friends list (created by Facebook users)
3. Switching between 'top stories' & 'most recent' stories
4. Managing updates from friends
5. Managing updates from pages
6. Hiding or unhiding people, pages or types of stories.
7. Reporting a story and reporting spam
8. Allowing 3rd party applications using Facebook Open Graph features.
9. Adjusting user privacy settings
10. Relationship settings
11. Hiding posts & reporting spam
12. Clicking on Facebook advertisement
13. Viewing other timelines
14. Device and other technical considerations
15. Story bumping
16. Chronological by actor and last actor
17. Emphasis on visually engaging stories
18. Choice of different stories
19. Public popularity
20. Check ins and user rating of places
21. Browsing, chatting, poking and attending events etc.

3.2 *Operations, Administration, Maintenance and Provisioning (OAM&P)*

The operating personals are

Network administrator- to take care of website

Data support team- to check whether the new offers are updated in website and to get routine backup and make available of mirror database in case of cleanup and recoveries, to check links between each databases.

Customer support team- to answer queries of customer, to check the bills (whether they are paid or not), to check whether information is sent to customer on time.



3.3 *Security and Fraud Prevention*

The data of customer should be confidential so to protect this data the following steps to be taken:

The Transaction should work in secured zone to protect data.

Proper secure measures are to be taken in development of website so that no discrepancies faced by the customers in logging to their respective accounts.

3.4 *Release and Transition Plan*

Explain how the feature will be deployed to customer sites, or from current release to newer release.

4 *Open Issues*

Open Issues results with every kind of Software. Irrespective of quality websites or moderate in the quality websites. Issues are unpredictable like their results.

This section should be part of the document only when the document is in a draft form

5 *Acknowledgements*

There will be general acknowledgements which deals algorithm and feeding capabilities for Keyword Feeder.

6 *References*

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