

# Impact Amplification for Distinguish User in viral marketing

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**Abstract** - To increase the profit of product in social network. We are going to use viral marketing platform. By using that, promoter can promote their product on social network. But there is one drawback of influence maximization is that, we cannot differ particular users from other users. To solve such problems we are going to proposed one proposed system called as "Influence maximization and maintenance" That proposed system show that, influence maximization problem as query processing which are going to distinguish that particular user from other users. For that, proposed system is used IMAX and Greedy algorithm. These algorithm used for approximation method. For experimental results, User can compare proposed system with existing system with respect to time required for uploading post on blog. So User can easily find out that proposed method results of time required w.r.t uploading post is faster and less than existing system

**Key Words:** Social network; influence maximization; Greedy algorithm; IMAX algorithm; Query processing;

## 1. Introduction

Today's, in online social network many user can post advertise or advertiser can post advertise for promoting purpose. That is User or advertiser can promote their product on online social network. Such as Twitter, Facebook, Instagram etc.

By using social network platform, User can easily increase the buzz of their product in marketing that is nothing but called as a Viral Marketing.

To improve the insignificant gain of product in viral marketing is nothing but called as an "Influence Maximization". Influence maximization have one drawback that, it cannot distinguish specific user from other users. For that user can used influence maximization problem as query processing and by using that it can distinguish specific users from other users. For that, IMAX algorithm & Greedy algorithm is used. By using that algorithm we can maximize marginal gain of product on social network and also reduce the post uploading time in Blog. So, here efficiency & accuracy is increased.

In [2] before any query processing, each user has used several predefined labels & that labels indicate as a target node but this labeled influence maximization method is not flexible method for query processing. To solve such problem & to provide flexibility user can introduced influence maximization problem as query processing.

## 1.1 Problem Statement

Influence maximization is to increase the marginal gain of product of viral promoting in social networks. But In proposed system, Influence maximization differ particular user from other users.

## 1.2 Objective

Influence maximization problem is a query processing which are used to differ particular users from other users. So for that purpose we have to show that these query processing as IMAX that is influence maximization.

## 2. Related Work

In this paper, we are going to develop proposed model which is efficient and which is based on Independent maximum influence paths. Using this method, we can easily identify that local region and that local region which containing nodes which influences to the target nodes. Processing time is reduced with the help of identifying local regions.

This proposed system includes the following steps:-

- From Existing researches, we developed influence maximization problem as query processing without using predefined labels. And we are going to provide flexibility.
- In this step, we are going to developed proposed model which are easily differ specific user from other users. For this we use greedy approximation to processing IMAX query. By using this proposed model we can easily reduce no of candidates who strongly influence targets nodes.
- In this step, proposed method strongly focused on local region. By using greedy algorithm we can

easily find out local influence region. It is easier to find out influence area.

### 3. Existing System

“Word-of-mouth” communication is used if promoter wants to promote their product on social network. In [2] before any query processing, each user has used several predefined labels & that labels indicate as a target node but this labeled influence maximization method is not flexible method for query processing. To solve such problem & to provide flexibility user can introduced influence maximization problem as query processing.

Disadvantages of Existing System:

In existing methods, if one of the items are useful to user still they does not differ that particular uses from others. This one is the main drawback of that existing system.

### 4. Proposed System

In this paper, we are going to introduce IMIP model. In that, influence spread of a seed set.

Existing System-

- Before query processing each user used predefined labels.
- Labeled influence maximization.
- Local region algorithm, SIMPATH algorithm.
- Does not distinguish specific users from others.
- Proposed System-
  - IMAX query processing algorithm, Greedy algorithm.
  - Influence maximization problem as Query processing.
  - Maximizing influence on specific users

#### Implementation Modules:

- Influence maximization system basically divides into two part: User side and Advertiser side.

#### System Model:

- Consider the proposed system architecture in figure 6.1 which contains following modules:
- User side
- Advertiser side
- Results:- Product like details

#### Module 1]:- User side: -

- User Login to the system by giving all details information such as name, password, email id, age, gender, religion etc.
- After user login process, User can send request to other users and make a friend circle. By sending & accepting the request from each other.

#### Module 2]:- Advertiser side:-

- Advertiser also login to the system by giving all details information such as name, password, email id, age, gender, religion etc.
- Advertiser post advertise at blog. User see that post and give comments on that post.

#### Module 3]:- Results: - Product like details:-

- In this last steps, product details are given such as product name, price, and product id, company name, see friends who like the details etc.
- In that, we are going to distinguish specific users from other users.

### 5. Mathematical Model

Assumptions:

Let  $S = \{ \}$  be as system is defined as asset such that:

$$S = \{ I, P, O \}$$

$$I = \{ U, Q, D \}$$

$$U = \{ u_1, u_2, \dots, u_n \}$$

$$Q = \{ q_1, q_2, q_3, \dots, q_n \}$$

$$P = \{ \text{IMIP, CELF, PMIA, IRIE, CD Model} \}$$

Where

I = Set of Input.

P = Set of Process.

O = Set of Output.

U = Set of users.

Q = Query entered by user

D = Dataset

#### I) Input Set Details:

Phase 1: Registration

Ir = { Username:i1,

Address:i2,

Pincode:i3,

Mobile No:i4,

Email:i5,

images:i6 }

Phase 2: Influence maintainance & Maximization.

```
Iv={ Username:i1,
    Postinfo:i2,
    Commentdetails:i3}
```

**II) Process Set Details:**

Phase 1: Registration

```
P1={ User Registration :p11}
```

Phase 2: Influence Maintainance & Maximization

```
P2={ Postdetails:p21,
    Rating:p22,
    Commenting:p23,
    Greedymethod:p24,
    Analysis:p25}
```

**III) Output Set Details:**

Phase 1: Registration

```
O1={Userid:o11,Password:o12}
```

Phase 2: Influence Maintenance & Maximization

```
O2={Post classification:o21,
    infoRecommendation:o22,
    Influence_maximization:o23}
```

**6. Algorithm**

**IMAX Query Algorithm:**

1. If the tree is empty, return a new, single node if (node == null)  
return (new Node(data);
2. Otherwise, recur down the tree  
if (data <= node.data)  
node.left = insert(node.left, data);  
else  
node.right = insert(node.right, data);
3. Given a non-empty binary search tree, return the minimum data value is find in that tree. Entire tree does not need to be searched.

```
loop down to find the leftmost leaf
int minValue(struct node* node)
struct node* current = node;
```

```
while (current.left != null)
current = current.left;
```

**7. Results and Discussion**

We are going to use Data set as User defined data set. For experimentation, we can use User defined datasets that is MySQL tomocat v server 5.0 & SQLyog connect to MYSQL database.

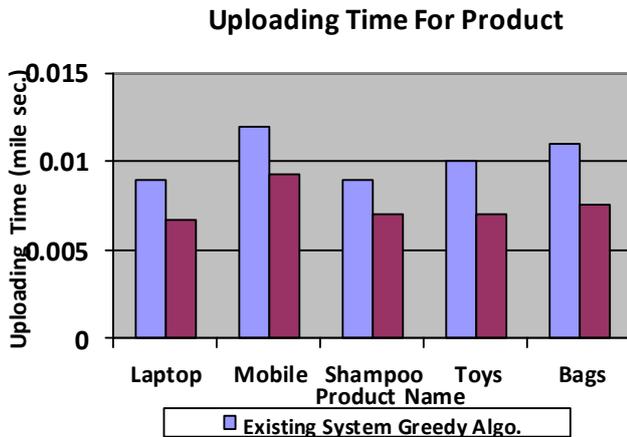
**Results:-**

We will compare proposed system with Existing system on the basis of time, accuracy & efficiency.

In this, at advertiser side user can post any advertise and user friends can see that post and give likes on that post. So our main aim is to distinguish first user who like that request from other users by using contribution as a same university and same domain. We consider here domain as “age” of that user who are see that post it means category wise that post will be seen to user side. And uploading time is reduce.

| Product Name | Uploading time in (mile seconds) | Category |
|--------------|----------------------------------|----------|
| Laptop       | 0.0067                           | Below 16 |
| Mobile       | 0.0093                           | General  |
| Shampoo      | 0.007                            | Below 14 |
| Toys         | 0.007                            | Below 18 |
| Bags         | 0.0076                           | Below 60 |

Table No:-1 Product Uploading Time in(ms)



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## 8. CONCLUSIONS

To Demonstrate influence maximization problem as query processing which are used to distinguish specific users from others & maximize the profit of viral marketing in social networks. In the future, for IMAX question handling, we will consider more different dispersions of targets.

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