

# **Socially-Driven Learning-Based Prefetching in Mobile Online Social Networks**

## **ABSTRACT**

The past decade has witnessed the wide penetration of online social networks (OSNs) such as Facebook and Twitter into our daily lives. With the pervasivity and popularity of wireless communication such as WiFi and LTE, more and more users are accessing OSN services on mobile devices via wireless connection. Mobile online social networks (OSNs) are emerging as the popular mainstream platform for information and content sharing among people. In order to provide the quality of experience support for mobile OSN services.

## **EXISTING SYSTEM**

In Existing System, A key factor of degrading the mobile user's satisfaction in consuming rich OSN media content the access delay (service latency). On one hand, limited network bandwidth, high wireless connection establishment latency and long roundtrip time of data transmission (varying from 3 seconds to 10 seconds or more) would impair the real-time responsiveness of users' daily social media usages, in particular when users try to access media files in social posts/tweets. On the other hand, time-varying network quality and sporadic network availability cause fluctuating connection and intermittent access. This would also incur excessive latency overhead for their social interaction engagement in OSNs.

## **DIS ADVANTAGES**

- It does not provide sufficient consideration for social influence among the users (i.e., social interaction patterns), which plays a critical role in media content consumption in OSNs.

## **PROPOSED SYSTEM**

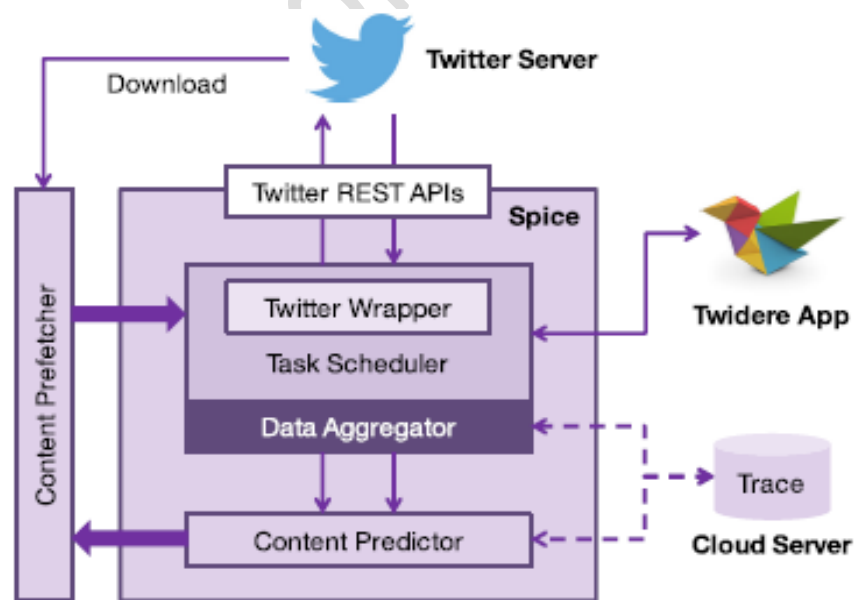
In Proposed System, Socially-Driven learning-based framework, namely *Spice*, for the media content prefetching to reduce the access delay and enhance mobile user's satisfaction. Through a largescale data-driven analysis over real-life mobile Twitter traces from over 17 000 users during a period of five months, we reveal that the social friendship has a great impact on

user's media content click behavior. To capture this effect, we conduct the social friendship clustering over the set of user's friends, and then develop a cluster-based Latent Bias Model for socially driven learning-based prefetching prediction. We then propose a usage-adaptive prefetching scheduling scheme by taking into account that different users may possess heterogeneous patterns in the mobile OSN app usage. We comprehensively evaluate the performance of Spice framework using trace-driven emulations on smartphones. Evaluation results corroborate that the Spice can achieve superior performance, with an average 80.6% access delay reduction at the low cost of cellular data and energy consumption.

## ADVANTAGES

- Reduces the access delay and mean while saving both energy and data traffic consumption by avoiding excessive content prefetching.
- Access delay reduction at the low cost of cellular data and energy consumption.

## SYSTEM ARCHITECTURE



Spice architecture

## SYSTEM REQUIREMENTS

### H/W System Configuration:-

Processor	-	Pentium –III
RAM	-	256 MB (min)
Hard Disk	-	20 GB
Key Board	-	Standard Windows Keyboard
Mouse	-	Two or Three Button Mouse
Monitor	-	SVGA

### S/W System Configuration:-

Operating System	:	Windows95/98/2000/XP
Application Server	:	Tomcat5.0/6.X
Front End	:	HTML, Jsp
Scripts	:	JavaScript.
Server side Script	:	Java Server Pages.
Database	:	MySQL 5.0
Database Connectivity	:	JDBC