

## Probabilistic Models for Ad View ability Prediction On The Web

Abstract:

Online display advertising has emerged as one of the most popular forms of advertising. Studies show that display advertising has generated earnings of over \$63.2 billion in 2015. Online advertising involves a publisher, who integrates ads into its online content, and an advertiser, who provides ads to be displayed. Display ads can be seen in a wide range of different formats and contain items such as text, images, Flash, video, and audio. In display advertising, an advertiser pays a publisher for space on web pages to display a banner during page views in order to attract visitors that are interested in its products.

Viewability prediction is important for many cases:

- Guaranteed impression delivery.
- Real-time impression bidding.
- Webpage layout selection.
- Recommender Systems.

### Existing System:

Researchers have investigated scrolling behavior and viewability for webpage usability evaluation. In the authors discover that users spend more time looking at information on the upper half of the page than the lower half. Also, the distribution of the percentage of content viewed by users follows a Gaussian-like distribution. We differ from these works in our main goal: viewability prediction. Existing work, collects scrolling behavior and uses it as an implicit indicator of user interests to measure webpage quality. In contrast, we design algorithms to predict the scrolling behavior for any user-webpage pair.

Disadvantages:

- The problem of predicting the viewability probability for a given scroll depth and a user/webpage pair.

- Less performance in comparative systems.

### **Proposed System:**

The problem of predicting the viewability probability for a given scroll depth and a user/webpage pair. Solving this issue can benefit online advertisers to allow them to invest more effectively in advertising and can benefit publishers to increase their revenue. We presented two PLC models, i.e., PLC with constant memberships and PLC with dynamic memberships, that can predict the viewability for any given scroll depth where an ad may be placed. The experimental results show that both PLC models have substantially better prediction performance than the comparative systems. The PLC with dynamic memberships can better adapt to the shift of user interests and webpage attractiveness and has less memory consumption.

#### **Advantages:**

- Better performance when compared with comparative systems.
- Less memory consumption.

#### **Modules:**

- PLC const: Prediction model with constant memberships.
- PLC dyn: Prediction model with dynamic memberships.

## **SYSTEM REQUIREMENTS**

### **H/W System Configuration:-**

Processor	:	Pentium –III
RAM	:	256 MB (min)
Hard Disk	:	20 GB
Key Board	:	Standard Windows Keyboard

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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