Rukmini Devi Institute of Advanced Studies

Madhuban Chowk, Rohini, Delhi-110085

(Approved By AICTE &Affiliated With GGSIP University)

DOSSIER

On
Guest Lecture

On
"YOUTUBE"

On
September 04, 2013

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                                                                    Chairperson, Literary Club

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FORM A

Proposal:

- **Name of the event to be organized**: Guest Lecture on **"YOU TUBE"**

- **Date:** September 04,2013

- **Time:** 10:30a.m. – 12:30 pm

- **Venue:** Lecture Theatre, RDIAS

- **Motivation for the activity**: The aim of this event was to Share knowledge on the YouTube Eco System, its technology enablers, Content ID, Ad server, its application developer, infringement checks.

- **Organized by:** MCA Department

- **Resource Person**: Mr. Prashant Arya, Technical Account Manager, YouTube at Google.

FORM B

Part 1

Aim of the event:

YouTube is a video-sharing website, created by three former PayPal employees in February 2005 and owned by Google since late 2006, on which users can upload, view and share videos. The company is based in San Bruno, California, and uses Adobe Flash Video and HTML5 technology to display a wide variety of user-generated video content, including movie clips, TV clips, and music videos, as well as amateur content such as video blogging, short original videos, and educational videos. Most of the content on YouTube has been uploaded by individuals, although media corporations including CBS, the BBC, Vevo, Hulu, and other organizations offer some of their material via the site, as part of the YouTube partnership program. Unregistered users can watch videos, while registered users can upload an unlimited number of videos. YouTube, LLC was bought by Google for US$1.65 billion in November 2006 and now operates as a Google subsidiary. The aim of this session was to make students learn the concept and application of YouTube.

Part 2

Abstract:

The session was conducted by Mr. Prashant Arya, Technical Account Manager, YouTube at Google.

His presentation contained the following discussion points:

1. Brief History of YouTube
2. YouTube Ecosystem

3. Technology Enablers: CDN
4. Technology Enablers: Content ID
5. Technology Enablers: Ad Server
6. What Engineer work on YouTube
7. Application Developer: YT APIs

Sir began the session by discussing the popularity of 'you tube' as per following detail:-

100 [hrs. of content uploaded per minute]

1 Billion [Number of unique users in a month]

6 Billion [Hours of Videos watched in a month]

25% [of Video Consumption on Mobile Devices]

Sir explained the brief history and meaning of YouTube by playing video. Then, Sir explored the concept of YouTube Ecosystem as per following diagram:-
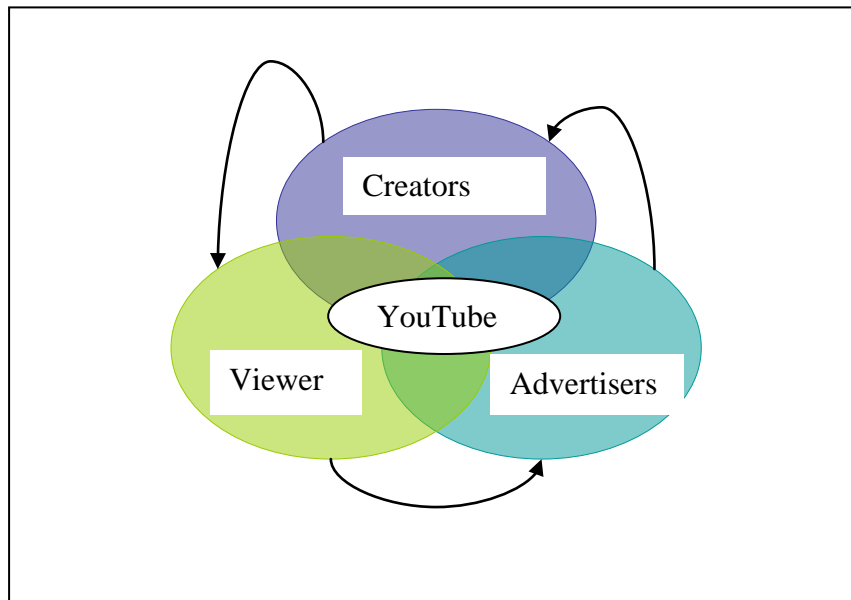
Here, Creator is anyone watching YouTube who create contents for users, Viewer is who view the YouTube contents and Advertiser is who advertise on YouTube.

After that, Sir explained various Technology Enablers of YouTube:-

1. **CDN(Content Distribution Network**:- CDN is a free and open content distribution network based around peer-to-peer technologies, comprised of a world-wide network of web proxies and nameservers. It allows a user to run a web site that offers high performance and meets huge demand, all for the price of a $50/month cable modem. Publishing through CoralCDN is as simple as appending a short string to the hostname of objects' URLs; a peer-to-peer DNS layer transparently redirects browsers to participating caching proxies, which in turn cooperate to minimize load on the source web server. CoralCDN proxies automatically replicate content as a side effect of users accessing it, improving its availability. Using modern peer-to-peer indexing techniques, CoralCDN will efficiently find a cached object if it exists *anywhere* in the network, requiring that it use the origin server only to initially fetch the object once.

2. **Content ID**:- YouTube's state-of-the-art technologies let rights owners:

   - Identify user-uploaded videos comprised entirely OR partially of their content, and
   - Choose, in advance, what they want to happen when those videos are found. Make money from them. Get stats on them. Or block them from YouTube altogether. It's up to Content Id.

Why use Content ID?

- **Make Money.** Hundreds of media companies have signed up already, multiplying their inventory of monetizeable videos.
- **Fan Interaction.** Turn your fans into marketers and distributors of your content—while letting them interact with their favorite content.
- **Reduce Infringement.** Educate your fans about your copyright preferences and prevent your content from being distributed on YouTube without your permission.
- **Fully Automated.** Once you're set up, Content ID will identify, claim, and apply policies to YouTube videos for you.
- **Market Data.** Access snapshots of your content profile on YouTube, anytime. See how your videos are performing, monetizing, being blocked—at a glance.

3. **Ad Server:** - **Ad serving** describes the technology and service that places advertisements on web sites. Ad serving technology companies provide software to web sites and advertisers to serve ads, count them, choose the ads that will make the website or advertiser most money, and monitor progress of different advertising campaigns.

Then Sir discussed about what type of job performed by engineer on YouTube, these are:-

- **Video Encoding**: - Codecs and compression.
- **Video Streaming**: - Low Bandwidth, ad-hoc network and caching.
- **Search**: - Metadata analysis and signals.
- **Artificial Intelligence**:- Video Content analysis: identifying objects, Personalization (what to watch next?) and video recognition.

In the end of lecture, Sir, discussed about YouTube APIs:-

1. **GDataAPIs**:- The YouTube Data API allows applications to perform functions normally executed on the YouTube website. The API enables your application to search for YouTube videos and to retrieve standard video feeds, comments and video responses. In addition, the API lets your application upload videos to YouTube or update existing videos. Your application can also retrieve playlists, subscriptions, user profiles and more.
2. **Analytics APIs**:- he YouTube Analytics API lets your application retrieve viewing statistics, popularity metrics, and demographic information for YouTube videos and channels.
3. **Players** APIs: - The JavaScript API allows users to control the YouTube chromeless or embedded video players via JavaScript. Calls can be made to play, pause, seek to a certain time in a video, set the volume, mute the player, and other useful functions.

Part 3

Conclusion

It is important for the students to be well acquainted with these applications and should be aware of the intricacies of implementing this technology. Keeping this in mind a lecture was organized for the students of MCA. The session was very informative and technical for the students. The speaker explained all the points in detail and handled all the queries with expertise. It was a great exposure as the guest lecture was motivational, informative, and interactive.

Speaker concluded the session by playing the most viewed video on YouTube, the music video of the song "Gangnam Style" which was added to the site on July 15, 2012, and became the first YouTube video to receive over 1 billion views on December 21, 2012. The music though played for few seconds refreshed every mind and soul with huge round of applause.

<u>Lecture Moments</u>

Mr. Prashant Arya delivering lecture on YouTube..!!

Students listening to the speaker…!!

Time to answer queries..!!