# DETECTING ORIGINAL AND DUPLICATE YOUTUBE VIDEOS

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#### Introduction

- Today, YouTube is the largest user-driven video content provider in the world.
- Allows anyone to upload and watch an unlimited number of videos for free
- YouTube Alternate TV
- Social Networking on YouTube

## YouTube Statistics

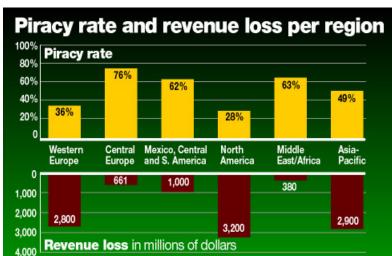
- 500 years of YouTube video are watched everday on facebook
- over 700 YouTube videos are shared on Twitter each minute
- More than 1 billion unique users visit YouTube each month
- Over 6 billion hours of video are watched each month on YouTube that's almost an hour for every person on Earth
- 100 hours of video are uploaded to YouTube every minute
- Tens of thousands of full length movies are available



# Snapshot



# loss of revenue



## Motivation

- Online piracy of film and TV network in 2008, cost the Indian film industry \$959 million
- Websites are indulging in hosting, streaming providing access to users, infringing its exclusive rights, broadcast and reproduction rights
- Acts of infringement not only cause loss of substantial revenues but will also take away the legitimate revenue to the government through service tax
- In case of YouTube videos infringement, it not only causes loss to the actual uploader of video, but also a loss to YouTube as it has to pay copyright violated video users also.

# Literature Review

This section describes the literature survey of the in the area of copyright infringement web video detection, duplicate and near-duplicate video identification. In addition to the application of multimedia and image processing on the video content meta-data based features for the task of copyright infringement detection are also studied in this project.

- youtube uses Content ID as described in [1] to easily identify and manage their content on YouTube.
- youtube also allows us to Submit a copyright infringement notification.
- several discriminatory features are discussed in [2] that can be used to distinguish between the original & the duplicate videos

#### Literature Review...

- detecting image near-duplicate by stochastic attributed relational graph matching with learning is being discussed in [3].
- a technology to summarize and visualize opinions that are expressed in the form of Web comments is introduced in [4] known as OPINION CLOUD

### Literature Review...

- [5] gives an insight to Mine User Comment Activity for Detecting Forum Spammers in YouTube.
- understanding of basic measures for text retrieval is discussed in [6] so that relationship between the set of relevant documents and the set of retrieved documents can be established. Various text retrieval and text indexing techniques are being discussed.

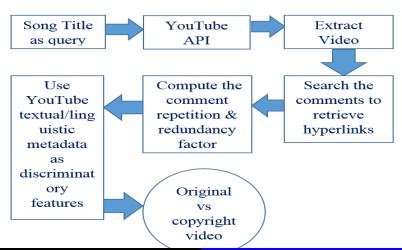
# Literature Review Gaps

The proposed literature only explores the metadata of a YouTube video without considering comments on the video. Work done in previous literatures are a limitation to only YouTube Music videos. So, the proposed work is to detect original & duplicate YouTube videos in every form of multimedia content.

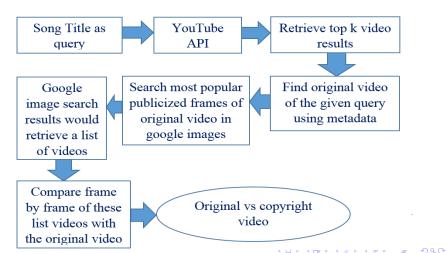
# Objective

- To conduct a study on the extent of copyright infringement in YouTube and investigate solutions to detect original and copyright infringement videos from the search results of a given user query.
- To investigate the effectiveness of contextual features as discriminatory attributes for the task of original and copy-right infringement video detection.

# Methodology



# Methodology



# Methodology

To achieve the objective mentioned, work is divided into four phases.

## Phase 1:

- Literature Review
- Devise different ways to detect copyright infringement videos.

## Phase 2:

- Study YouTube API
- Information retrieval from Video Metadata

## Phase 3:

- devise an appropriate method for near duplicate image detection.
- extract video metadata

#### Phase 4:

- Integrating above modules

## References

- Kim, E. C.: 2007, Youtube: Testing the safe harbors of digital copyright law, S. Cal. Interdisc. LJ 17, 139.
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