

INFORMATICS INSTITUTE OF TECHNOLOGY

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**Multimedia Story Teller for kindergarten
Using NLP and Ontology**

A dissertation by

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Abstract

The children whose ages between 1 to 6 years need the correct guidance and support to understand things. In this age group their reading ability and comprehensibility are also low. Currently there are some web sites and tools and they are just tools which help to create movies and they do not generate movies automatically. Therefore my system is going to provide better solution for them. Through my proposed system I am going to introduce a method for children to understand a story with a suitable video. With the video children will be able to imagine the exact meaning of story by visuals. And also it stores the videos of all stories, which are created by the system. For developing of this system I am using technologies which are Java, Stanford Natural Language Processing Framework, Resource Description Framework, Jena Framework with SPARQL and FFmpeg.

I have created the system to get an input as a text and extract subject, verb, adjectives and prepositions of each sentence and dependencies between sentences. System has a repository of images in png format. I used text based image retrieval approach by using ontology, which is developed using protégé. RDF used to annotate and store image's metadata. I execute SPARQL query to find the most relevant images using subject, verb and adjective extracted before and load the image. Then the system merges that images using the prepositions and other relationships of the characters in each sentence and create image frames. Finally it creates a video using that image frames. Parents, primary teachers, nannies and kids are considered as the users of this system.