

# INTELLIGENT MOVIE SCRIPT PATTERN IDENTIFICATION USING SUPERVISED LEARNING ALGORITHM

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## Abstract:

This paper proposes an Automatic Ontology based movie script generation using dialogues with the support of Natural Language Generation (NLG). NLG is the natural language processing task of generating natural language from a machine representation system such as knowledge base or logical form. Sample examples are system that generate form letter i.e., letter to the consumer stating that credit card spending limit has reached. In general, an ontology is the working model of entities and interact in some particular domain of knowledge or practice. In this study we focus on Automatic Script generation for movies based on NLG and ontology. The proposed approach reduces the human effort necessary to obtain the screenplay for movies by reducing the overall development cost.

Key words: NLG, Ontology

## I. INTRODUCTION

The Script is a document that outlines every aural, visual, behavioral and lingual element required to tell a story. A film is a highly collaborative medium and the director, cast, editor and production crew will be based on this outline called the script. Advances in screenwriting software now save the hours previously spent to learn and write a screenplay.

## II. RELATED WORK

The next generation of intelligent dialogue system is expected to go beyond question and answering by providing active assistance and subjective recommendation thus behaving more like human agents. (1)To receive Dialogue-Oriented summary 3 level frame work is proposed, Linguistic Frame, Dialogue-Oriented Review Summary Generation, Response Generation component. **Linguistic Frame** From linguistic frame phrases are extracted by capturing set of Adjective-Noun relationship. Then calculate numerical score for sentiment strength for each Adjective and Adverb. Applied a cumulative offset model to assign a sentiment score to each phrase. **Dialogue Oriented Review Summary Generation** the First task is to identify a phrase as “helpful” or “not” It employs a set of statistical features for model training such as Unigram probability and Bigram probability of Adjective-noun pair. **Response Generation Component** Response is generated by language generation component, speech utterance is generated by Synthesizer and is sent back to the user.

(2)**Ontology** is considered as a formal Knowledge Repository used as a resource for NLG. A Domain Ontology provides input for content determination of **NLG** task. It represents different objects in the world by set of hierarchies and relations It will act as Knowledge base for generating messagesNLG: *NLG* is a process of converting an Input knowledge representation into a text or speech. The NLG system is represented as 4 tuples (K, C, U, and D) Where K-Knowledge source i.e., from database. C-Communication goal i.e., independent of language, U-User model based, D-Discourse history i.e., ordering of information in the output text followed by speech synthesizer.

MATCH-> Multimodal Access to City Help. This paper provides a mobile multimodal Speech-pen interface to get restaurants and subway information (3) MULTIMODEL DIALOGUE MANAGER (MDM) it uses a Java based toolkit for writing dialogue. It includes several rule based process. Process include interpretation, selection and generation process. *Interpretation*: It takes input from N best possible or multimodal interpretation Selection, Determination system's next move, *Generation Process*: Performs template based generation for simple responses. (4)Domain ontology OWL and SPARQL SELECT queries contribute to NLG. AIM-For automatic generation of clinician expectation from Clinical Document Architecture (CDA) NLG system in OWL has 3 stages: Text Planning, Sentence planning, Sentence realization.These three stages are used as an approach to NLG from Coded data in Electronic Health Records.

### III. PROPOSED WORK

The proposed system is focused on improvising the generation of script for movies automatically by adding more features which gives more accurate movie script output as accepted by the clients with the help of ontology. The NLP provides rich description of terminology, concepts, relation between concepts and rules relevant to a particular domain.

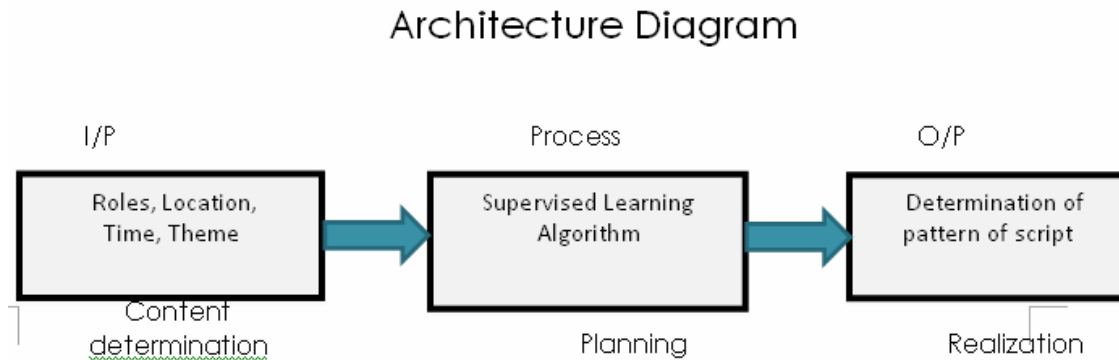


Fig: 3.1 Architecture Diagram

This proposed system will encourage the young talented aspirants those who want to write their story in a script format with least efforts.

### 3.1 CONTENT DETERMINATION PHASE

In this content determination phase, the contents includes the roles involved in the story, location in which the scene is taking place the characters involved in the scene the environment that is present whether day or night shots are described . All these inputs are considered and is given to the planning phase.

### 3.2 PLANNING PHASE

In this planning phase the algorithm namely the supervised learning algorithm is used which is used to determine the pattern of the script with the given inputs in the scenario. The different types of patterns in the script includes romantic script pattern, science fiction pattern, historic movie script pattern, fantasy movie script pattern, Dramatic movie script pattern, horror movie pattern, Thriller movie patterns and so on. This supervised learning Algorithm will have an in build pattern recognition which determines the pattern that is present in that particular input. This intermediate phase is the planning phase.

### 3.3 REALIZATION PHASE

In this realization phase the pattern of the script is determined as an output of the planning phase which uses an algorithm namely the supervised learning algorithm.

## IV. CONCLUSION

An Automatic movie script generation using dialogues are developed with the Natural Language Processing and reasoning concepts .Thus the pattern of the movie script is identified intelligently with the help the supervised Learning algorithm given the inputs like time ,theme, location and the characters involved in the movie, the pattern of the movie is intelligently identified.

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