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# Modelling of an Ontology Represents the Knowledge Embedded in Filmed Materials : A Conceptual Framework

## Introduction

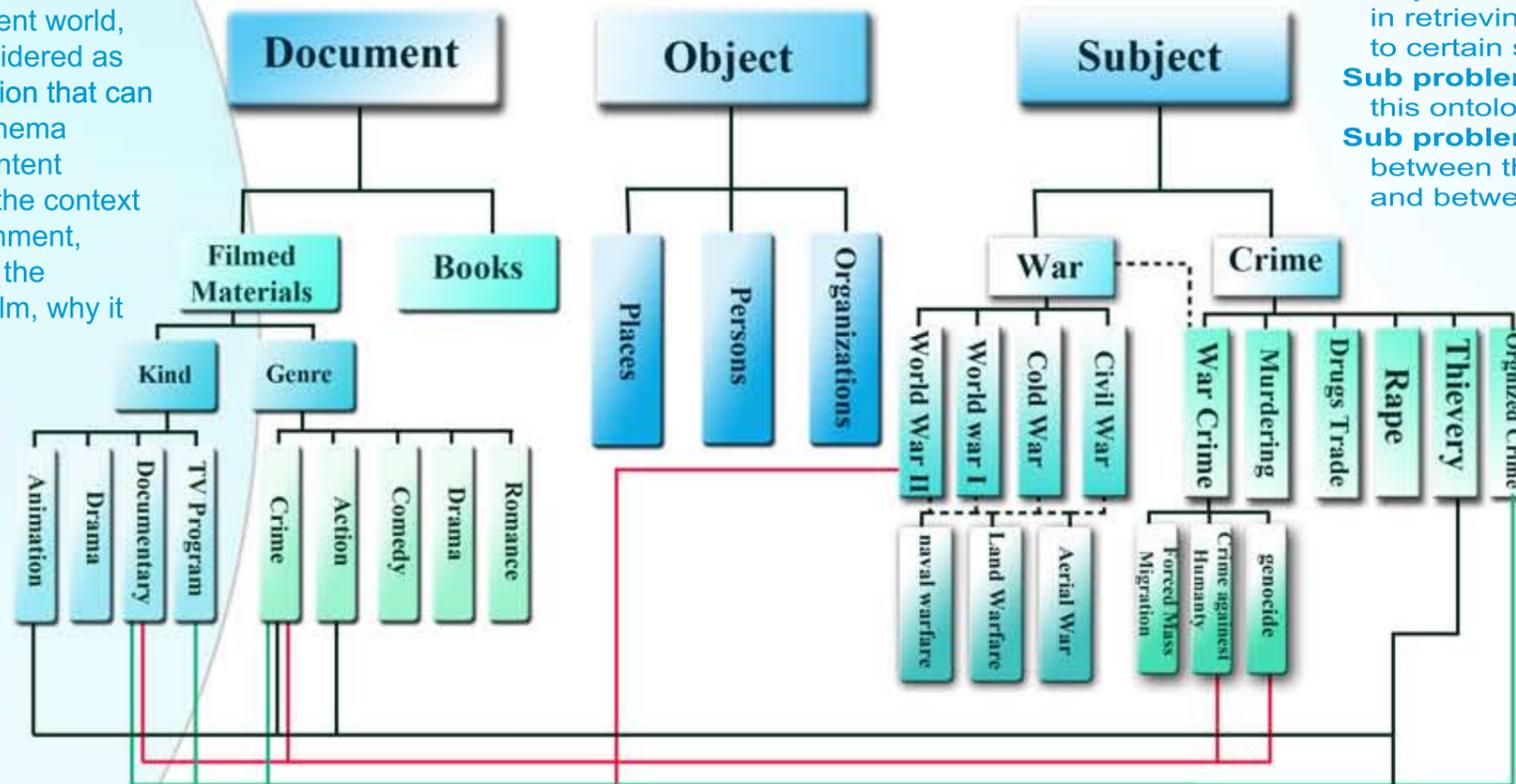
The stories contained in books comprise a considerable amount of knowledge. There is no doubt that, beside the stories, the cinema, TV, and all other moving visual materials play a significant role in our contemporary culture. On the one hand, they form our consciousness of the present world, and on the other hand, they can be considered as historical documents containing information that can shape our knowledge about the past. Cinema represents the society by the political content contained, and the audience often miss the context because they enjoy the films as entertainment, therewith, content will be revealed when the audience asks about the purport of the film, why it was made?

The question here is there any knowledge can be captured from filmed materials such as movies, video clips, documentary films, TV programs or even shots that taken for news or film making purposes... etc. If the answer was yes, then this knowledge embedded needs to be captured and represented and made available to be used by those who need it. In the meantime, what is the tool that can be used to control this knowledge?

One approach to achieve this goal is the tool called Ontology.

## Problem Identification

- Sub problem 1:** Can the filmed materials be considered as something containing knowledge?
- Sub problem 2:** What is the importance of this knowledge?
- Sub problem 3:** How can this knowledge be represented?
- Sub problem 4:** To any extent can the intended ontology be helpful in retrieving these materials when searching for knowledge related to certain subjects regardless of its formats or forms?
- Sub problem 5:** What are the characteristics and specifications of this ontology?
- Sub problem 6:** Can this ontology lead to discovering new relations between the instances based on the relations between subjects, and between some of its other attributes?



## Overall Research Design

### The first stage: Acquisition

- Sample collection
- Subjects identification

### The second stage: Conceptualization

- Building a glossary of terms
- Classify these terms into one or more taxonomies.
- Defining the binary relations between concepts.
- Building the dictionary of concepts.
- Defining binary relations in detail.
- Defining instances' attributes in details.
- Defining classes attributes in details.
- Defining the constancies in details and construct a constant table.
- Describing the formal axioms.
- Defining the rules.
- Introducing the instances details.

### The third stage: Evaluation

- Ontology verification, in terms of the ontology being free of errors.
- Ontology validation, in terms of whether the ontology will be represents the real world.
- Ontology assessment, by the judgments from the end users point of view.

## Motivation of This Research

- 1-Availing of the experience of library science, particularly classification science.
- 2-Enhancing the recognition of cinema as a source of information not merely a tool for pleasure or entertainment.
- 3-Building an ontology represents the subjects of filmed materials as a tool used to retrieve these materials semantically.

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