ABSTRACT

Movie, which is a kind of video, is the most popular entertainment. With the development and advance of digital technologies, movies are produced, edited, and disseminated easily and quickly, make explosive amounts of movie data and impede efficient storage and dissemination. Therefore, video or movie analysis studies are advanced to perform semantic analysis in video media management and browsing, in a way that allow meaningful and efficient classification, indexing, and retrieval of objects in a video database.

Conventional video analysis researches use audiovisual-feature-based approach, which is based on visual, audio or text component. Realize that a movie have story component beside of those components, a new analysis method is advanced based on story context. In this method, a movie is represented in a network based on social relations between roles. From the network model, leading roles and the corresponding community can be automatically determined. The results of community identification provide new alternatives in video media management and browsing. Moreover, by describing video scenes with roles context, social-relation-based story segmentation method is developed to pave a new way for video analysis studies.

The result of evaluation shows that video analysis method based on social relations between roles is effective. The result of leading role determination and community identification has 92.94 % precision compared with the true information.

**Keywords**: semantic analysis, network model, community identification, story segmentation.