

Invited speaker

Speaker: Mirella Lapata, Institute for Language, Cognition and Computation - School of Informatics - University of Edinburgh

Title: What's this movie about? Automatic Content Analysis and Summarization

Abstract - Movie analysis is an umbrella term for many tasks aiming to automatically interpret, extract, and summarize the content of a movie. Potential applications include generating shorter versions of scripts to help with the decision making process in a production company, enhancing movie recommendation engines by abstracting over specific keywords to more general concepts (e.g., thrillers with psychopaths), and notably generating movie previews. In this talk I will illustrate how NLP-based models together with video analysis can be used to facilitate various steps in the movie production pipeline. I will formalize the process of generating a shorter version of a movie as the task of finding an optimal chain of scenes and present a graph-based model that selects a chain by jointly optimizing its logical progression, diversity, and importance. I will then apply this framework to screenplay summarization, a task which could enhance script browsing and speed up reading time. I will also show that by aligning the screenplay to the movie, the model can generate movie previews with minimal modification. Finally, I will discuss how the computational analysis of movies can lead to tools that automatically create movie "profiles" which give a first impression of the movie by describing its plot, mood, location, or style.