

Interactive Browser of Heterogeneous Web Content

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Multimedia content is very important for many users since it gives them fun and relaxation, but may also serve to improve education and skills. Just a few years ago it was extremely difficult to transmit large amounts of data, required by multimedia content, through the Internet. The arrival of new revolutionary technologies with higher speed of data transmission has changed this situation significantly in recent years. Therefore multimedia content is ever more available on the Web. Its main advantage is that the quality of the transmitted content, thanks to the constant acceleration of transmission speed, may still improve.

The main topic of my bachelor thesis is focused on displaying and viewing multimedia content and on the improvement of existing photo browsers and viewers. The browsers nowadays include the possibility of browsing and searching images based on specified criteria. The first theme of my project concerns the integration of a video player into an existing multimedia exploration solution since videos will become an integral part of it. Besides that, these videos will also include metadata which will be useful for easy searching and navigation in video content. Videos displayed by the system will be transmitted through the Internet in the highest possible quality.

These videos will be used mainly for study purposes. There are already some doctoral thesis defences, which have been documented in the form of video recordings. We would like to include these videos into the system and use the options they offer. Our system allows users watching these videos to save their notes at specific time frames, and thus interact also with each other by sharing annotations while learning or commenting events in the videos.

We also give users the opportunity to add chapters to videos. Thanks to this feature user navigation in video content is much easier. Via previewing the timeline users can immediately see major topics and parts of video presentations. We also allow users add questions to topics covered in video. These questions are divided into two categories:

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- Open questions where users write answers into prepared text fields. All replies are stored so the question sponsor will know who wrote each answer. This way the author of a video can check for the understanding of the information presented in the video.
- Questions with default answers, with several predefined options, so the question answering will be quick and easy thus not unnecessarily disturbing users.

We realize the question answering interface in a user-friendly way so that the announcement of questions or comment and their addition/answering do not significantly disturb user experience.

If users want to answer a question, we either automatically pause the video or present the question in background such as not to disturb watching. We expect our videos to be much more documentable and searchable, and thus more useful both entertainment and educational purposes via comments, questions and chapters.

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References

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