Evaluating a Workflow for Authoring Multimodal DITA

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ABSTRACT
This poster presentation reports on preliminary evaluation of OVID (Online Video), an open source DITA Open Toolkit plug-in that allows insertion of HTML5 video tags in web help topics. OVID converts DITA inline links into multimedia HTML5 tags (video, audio, and canvas). Students in an advanced undergraduate technical communication course participated in a quasi-empirical evaluation of the authoring workflow needed to create OVID-enhanced DITA topics and maps. Findings suggest that the process of identifying, tagging, and coding video elements does not represent a serious burden to authors, and participants described it as being easier and faster than writing DITA topics and maps.

Categories and Subject Descriptors
H.5.2 [**User Interfaces**]: Training, help, and documentation; I.7.2 [**Document Preparation**]: Markup languages

Keywords
DITA, XML, HTML5, multimodal help, video.

1. INTRODUCTION
OVID (Online Video) is an open source plug-in that allows insertion of HTML5 multimodal elements in web help topics created with the Darwin Information Typing Architecture (DITA). OVID transforms DITA inline links, "cross-references that you insert in the topic rather than create the link by using a DITA map or relationship table" [1], into HTML5 *video*, *audio*, and *canvas* tags without requiring DITA specialization. The main anticipated result is an alternative to text-based topics for users' diverse information needs and preferences.

Previous attempts to create multimodal input and output in DITA topics "transform DITA material to SSML (Speech Synthesis Markup Language) to enable auditory access" [2]. OVID takes advantage of HTML5's native multimedia tags to deliver audio and video inside web help topics produced with DITA. Creating multimodal DITA deliverables with OVID involves separate processes to a) build a playlist in XML Shareable Playlist Format (XSPF) to identify topic-equivalent segments in an instructional video file, and b) author topics and map(s) in DITA to host the video segments. The purpose of this study is to evaluate the feasibility and easiness of having a technical writer conduct both processes in a timely and efficient manner.

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2. RAPID EVALUATION
We conducted quasi-empirical evaluation of the OVID workflow with students in an advanced technical communication course at Virginia Tech. The test's objective was to make users perform the tasks needed to create an OVID project. The course's syllabus included two DITA projects and one instructional video. Therefore, the students were familiar with both processes. The evaluation involved five participants (four female and one male) with ages ranging from 19 to 22 years old. All participants said they were very or somewhat interested in pursuing a career in technical writing, somewhat to very comfortable authoring DITA topics, and from not at all to very comfortable working with video files.

Tasks assigned during the test included creating the XSPF file identifying the main topics in the video developed for the course. Participants then had to create DITA topics to convert the tracks identified in the video. Using the OVID admin interface, participants selected references to specific sections in the video and pasted them as inline links in the corresponding sections of the DITA topics. The last task was to create a DITA map and generate a video-enhanced web help deliverable.

All participants said the process of creating the playlist and identifying topic-equivalent segments in a video was easy and did not represent a serious burden from a writer's perspective. Students pointed out that creating the playlist and working with the video file was easier and faster than authoring DITA topics and maps. Minor problems were related to the original video's long introduction and plot lines.

3. CONCLUSIONS
With limitations because of the informal evaluation and small number of participants, creating multimodal DITA topics with OVID was easy and feasible for novice technical writers. These conclusions open the possibility for future studies evaluating DITA deliverables for users with information needs that text-based deliverables would not satisfy (low-literacy or illiterate, non-native English speakers, visual learners). Recommendations include developing simple videos based on principles of structured authoring to facilitate track-to-topic conversion.

4. REFERENCES
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