

Accessing the Densho and HistoryMakers Oral History Collections via Informedia Technologies

Michael G. Christel, Robert
V. Baron

School of Computer Science
Carnegie Mellon University
Pittsburgh, PA 15213 USA
1-412-268-{7799, 2581}

{christel, rvb}@cs.cmu.edu

Geoff Froh, Dan Benson

Densho: The Japanese American
Legacy Project
Seattle, WA 98144 USA
1-206-320-0095

dan.benson@densho.org

Julieanna Richardson

The HistoryMakers
1900 South Michigan Ave.
Chicago, IL 60616 USA
1-312-674-1900

jlr@thehistorymakers.com

ABSTRACT

Densho is a nonprofit organization started in 1996 with the goal of documenting oral histories from Japanese Americans who were incarcerated during World War II. The HistoryMakers is a nonprofit established in 1999 with the goal of documenting video life oral history interviews highlighting the accomplishments of individual African Americans and African-American-led groups and movements. Both collections share the goal of broader, deeper use of the oral history content through digitization and automated processing where appropriate. This demonstration showcases the application of Carnegie Mellon Informedia digital video library processing and interfaces to enhance access into the interview segments.

Categories and Subject Descriptors

H.5.1 [Information Interfaces and Presentation]: Multimedia Information Systems –video

General Terms

Design

Keywords

Oral histories, video retrieval

MOTIVATION AND OVERVIEW

A recently published research agenda for improving access to recorded interviews notes that emerging technologies offer the potential to radically transform the way in which oral histories are made accessible, and that such technologies can encourage the greater use of audio and audiovisual records. Automatic transcription, improved alignment of existing transcripts, and additional metadata, particularly at the story segment level, are suggested as means of overcoming the tediousness of navigating through thousands of hours of linear audio and video [1].

The Informedia research group at Carnegie Mellon University has worked with an oral history archive, The HistoryMakers, to apply such automated techniques and generate time-aligned metadata for use in accessing the video narratives [2]. A study in 2007 showed the value of representing the oral histories in video form, especially for exploratory search [3]. A talk and demonstration at the Oral History Association Annual Meeting in Pittsburgh, PA in

2008 attracted broader interest in the use of Informedia processing and interfaces to improving accessibility into digitized oral histories, especially those where manual transcriptions were already in hand. Generating transcripts automatically through speech recognition is possible but with a huge error range and set of specific research issues for dealing with noise, accents, vocabulary, etc., as discussed well in [1]. The Densho corpus, like the HistoryMakers corpus, benefits from Informedia processing for automated speech alignment of provided transcript text (rather than generation of such text from the speech signal). Additional Informedia processing includes a Lemur text search service against the text metadata, geographic search and overview based on automated extraction of locations from text through named entity extraction, and a set of views emphasizing different attributes of video sets (storyboards, maps, Visual Information Browsing Environment (VIBE) scatterplots, etc., as illustrated with HistoryMakers materials in [2]).

This demonstration illustrates the applicability of Informedia processing and interfaces for subsets of two oral history collections: Densho [4] and HistoryMakers [5]. Shared goals of these collections include preserving historically valuable stories and providing a means of exploring issues of democracy, intolerance, civil rights and the responsibilities of citizenship in our increasingly global society. It is hoped that through interfaces like the one demonstrated here, that the oral history resources can expand awareness of the United States' diverse history and stimulate critical thinking.

REFERENCES

- [1] Jong, F. D., Oard, D. W., Heeren, W., and Ordelman, R. 2008. Access to recorded interviews: A research agenda. *J. Comput. Cult. Herit.* 1, 1 (Jun. 2008), 1-27.
- [2] Christel, M. G., Richardson, J., and Wactlar, H. D. 2006. Facilitating access to large digital oral history archives through Informedia technologies. In *Proc. ACM/IEEE-CS Joint Conference on Digital Libraries (Chapel Hill, NC)*. JCDL '06. ACM, New York, NY, 194-195.
- [3] Christel, M. G. and Frisch, M. H. 2008. Evaluating the contributions of video representation for a life oral history collection. In *Proc. ACM/IEEE-CS Joint Conference on Digital Libraries (Pittsburgh PA)*. JCDL '08. ACM, New York, NY, 241-250.
- [4] *Densho: The Japanese American Legacy Project*, <http://www.densho.org>.
- [5] *The HistoryMakers African American Oral History Archive*, <http://www.thehistorymakers.com>.

This material is based on work supported by the National Science Foundation under grant IIS-0705491.

Copyright is held by the authors.

JCDL '09, June 15–19, 2009, Austin, Texas, USA.
ACM 978-1-60558-322-8/09/06.