Authoring Realistic Learning Environments with Stories (ARLES)

Nonfiction stories of personal experience play an important role in effective training and education, both in the interaction between instructors and students and in the development of immersive computer-based learning environments. In this research, we develop new technologies for finding nonfiction stories relevant to specific learning objectives among the millions of personal stories that people post to their public weblogs. We have developed a pipeline for the automatic collection of tens of millions of stories from streams of weblog data. We search this collection using innovative new text and image-based tools. To support the use stories in the development of U.S. Army training systems, we identify stories that describe the execution of skills that are analogous to Army tasks.

In Government FY2014, ARLES research will incorporated into a new project:

Narrative Evidence for Author Retrieval (NEAR)

This project will develop interactive information retrieval prototypes in which training developers can articulate criteria of authors whose content they seek using natural language (English text), which will be used to locate authors among millions of those who contribute narrative content to public weblogs that meet these criteria. In this work, we capitalize on recent advances in abductive language interpretation, which enable us to advance new approaches to information retrieval that is sensitive to both explicit and implicit evidence in authors' writings.

These projects are funded by the U.S. Army as part of the core mission of the USC Institute for Creative Technologies.

At the University of Southern California Institute for Creative Technologies leaders in artificial intelligence, graphics, virtual reality and narrative advance low-cost immersive techniques and technologies to solve problems facing service members, students and society.

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