

PicoTales: Collaborative Authoring of Animated Stories using Handheld Projectors

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ABSTRACT

In this article we describe a novel approach to collaborative video authoring using handheld projectors. *PicoTales* are created by sketching story elements on a projector+phone prototype, and then animated by moving the projected image. Movements are captured using motion sensor data, rather than visual or other tracking methods, allowing interaction and story creation anywhere. We describe in detail the design and development of our prototype device, and also address issues in position estimation and element tracking. An experiment was conducted to evaluate the prototype, demonstrating its accuracy and usability for ad-hoc creation of story videos. The potential of the system for story authoring is shown via a further experiment looking at the quality of the animated story videos produced. We conclude by considering possible future developments of the concept, and highlighting the benefits of our design for collaborative story capture.

Keywords

Mobile projection, story authoring, collaboration.

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