

assimilate.net: Creativity Support For Situated Collaborative Storytelling

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ABSTRACT

How we assimilate stories into our common experiences and shape culture is the field of study known as narrative intelligence. By following this hypothesis and investigating theories of conversation modeling, this research outlines a creativity support system for collaborative storytelling that invites participatory narration and shared understanding in a situated context.

Keywords

Interactive Digital Storytelling, Narrative Intelligence, Conversational Information System.

ACM Classification Keywords

H.5.1 Multimedia Information Systems

INTRODUCTION

This research proposes a strategy that invites shared narration through the design and evaluation of a creativity support system that promotes meaning and sense-making for collaborative storytelling in situated contexts. Placing emphasis on participatory narration allows for the possibility for a larger scope of generic themes and creative outcomes to emerge with rich collaborative experiences.

The system design accounts for how narrative manifests in our community and the mental models we form from those influences and can be broadly classed as a ‘conversational information system’, or one that structures knowledge to manifest coherent collaborations by modelling the supportive processes involved during a group conversation, or the situated action associated with oral and visual storytelling. Through the enactment of conversation, participants can form a shared agreement surrounding several themes and reach a shared understanding.

The storytelling system is devised as a multi-tiered unified architecture including, a database of narrative templates containing a range of cultural based themes, a generative storytelling system that self-organises salient themes selected by participants, and an expressive multi-touch table interface that allows participants to collaboratively construct visual or symbolic narratives in an abstract 3D

virtual space, while promoting gestural, verbal and non-verbal communication.

Storytelling system design can benefit by offering a rich set of events and relationships that appeal to existing metaphors and accrued knowledge patterns. The narrative intelligence hypothesis investigates our capacity to accrue canonical narrative themes through our communities and cultural experiences [1]. The assumption is the enactment of narrative, or the act of the telling through conversation, is the means by which mental models of narrative are formed and shared. These models are layers of constructed metaphors that are shaped from our existing conceptual structures and are said to originate from our affective experiences.

Conversation Theory (CT) [2], a theory of learning and social interaction, shows how such knowledge structures can be modeled to support embodied conversation and shared agreement surrounding assembled themes, taking into account the collective viewpoint and interpretation of collaborators. Knowledge in this form is collectively constructed in a cyclic manner to achieve conceptual coherence while remaining flexible and domain independent that is suitable to collaborative storytelling.

The approach is to develop a unified and holistic architecture that incorporates our cultural and historical ways of telling stories while creatively supporting new collective narratives from the many sources online.

BIOGRAPHICAL SKETCH

Damian Hills is a PhD student at the Creativity and Cognition Studio at the University of Technology, Sydney. Since 1995, he has worked as a developer in digital media for a wide range of industries including medicine, education, government, film and games.

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