Chapter 3

A Virtual Performance Stage as a Space for Children to Create and Perform Stories

Wahju Agung Widjajanto, Heidi Schelhowe, and Michael Lund

Digital Media in Education Research Group, University of Bremen, Bibliothekstraße 1, 28359 Bremen, Germany

E-mail: wahju@tzi.de, schelhow@tzi.de, mlund@tzi.de

This research focuses on the development of the Wayang Authoring tool, which aims to assist children in creating and performing stories, developing an appreciation for cultural artifacts, and enhancing intercultural empathy while building a young storyteller community within a virtual world. This study seeks a framework of interaction design of an authoring media, which is appropriate for supporting a child’s narrative development. To understand the user’s requirements and to evaluate the tool, children, teacher and story performers who use wayang have been involved in the development process. This virtual creative production tool is expected to provide a space for young people to change their role from a simple user to a (co-)creator in both the virtual and narrative worlds. This research found that a better understanding of how stories are crafted and brought to life in a performance tradition offers a better design of interaction of an authoring media.

3.1 Introduction

Storytelling is an ancient art through which meaning, experiences, events and actions are conveyed through words, images and sounds. This art form is traditionally an oral performance with an interactive relation between storyteller and audience [1]. Storytelling is first and foremost an interactive performance art form, and it is a co-creative process between the storyteller and the audience.

Children particularly use storytelling to experiment with their developing notions of a societal role. Children tell stories, which are part of their everyday experience, in order to understand the world, develop a sense of self, and to actively participate in their culture [2].
Currently, almost all technologies for children are becoming very sophisticated and more attractive. Many researchers are trying to develop new technologies in order to facilitate personal expression and storytelling. With a closer look at storytelling technologies, attractive kinds of application currently being developed to facilitate various aspects of children’s storytelling can be found.

The widespread adoption of the World Wide Web has primarily changed the landscape of software development. The web has become the de-facto development environment for applications and new software systems in the past few years. In the new era of web-based software, applications run on the web as services. Even though virtual worlds cannot substitute the rich experience of performing with real puppets and a face-to-face audience, we want to ponder the potentials of web design and usage for the field.

Wayang Authoring [3] has been implemented in order to show how an authoring tool can support creative storytelling and self-expression, and simultaneously contribute to the field of storytelling as an interaction design for children. This paper focuses on the use and evaluation of the Wayang Authoring tool as it aims to assist children in creating stories, developing an appreciation for cultural artifacts, and enhancing intercultural empathy while building a young storyteller community within a virtual world. The idea of Wayang Authoring is based on the ancient Indonesian art form wayang [4, 5], a traditional two-dimensional shadow puppet theater.

This paper is divided into four main sections: in the second section, we review the field of storytelling technologies for children. In the ‘Methods’ section, we explain the methodology for this research including the development process of the prototype and the evaluation of the use of the technique with the children. The major findings are discussed in the ‘Results and Discussion’ section.

3.2 Storytelling, Technology and Children

Storytelling and the development of media have alternately influenced each other, and each new medium has established a new kind of storytelling. By using digital media as a major medium, various new kinds of storytelling are created, such as interactive fiction, text adventures, role plays and games with story elements. The advantages of digital storytelling are that the stories can be easily stored, retrieved and retold. The creators can rework their stories and even enable a kind of reflection. Authors can publish their digital stories to readers worldwide who have internet access. They can also extend their network as they