Chapter III

Designing Children's Multimedia

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Abstract

This chapter's overarching aim is to elucidate young children's perspectives about, and contribute to, a better understanding of what makes "good" educational multimedia Web design. Focusing on Web design from the child's perspective has the potential to illuminate the multifaceted sociocultural-technological context in which they learn. Underpinning the chapter is a social-constructivist view of learning applied to Web design for young children. The chapter covers (1) "engagement" as a key criterion for successful design; (2) how children make meaning in a Web-based environment; (3) theoretically grounded models of multimedia design including learner-centered design, activity theory, and models of participatory design with children. The chapter is informed by, and reports on, a qualitative case study using a child-centered participatory design approach with Year 2 children (6 and 7 year olds).

Introduction

The nature of our communicational and technological systems is changing. In the postindustrialized West, the everyday lives of children are colored by an aural and visual array of information, messages, and narratives. Like a wildly flowing river, it rushes by in sound bites, digital bytes, cartoons, Weblogs, e-zines, e-mails, musical ring tones, t-shirt insignias, and advertisements, merging into a vast communicational stream of which children are very much a part. Carrington (2005) illuminates this sociocultural phenomenon of contemporary childhood with reference to the Japanese term "Shi Jinrui," for "New Humankind," to illustrate just how different this generation of young is to previous generations (Wilks, 2002, cited in Carrington, p. 11). That our terminology to describe current communicational technologies is fraught with the precedent "new" (new media age, new literacy studies, new humankind, etc.) bespeaks that this is an area deserving fresh approaches to children's communicative practices as they relate to the new media environment, specifically, and the wider sociocultural mosaic of our times.

This chapter discusses and analyzes the communicative practices children use when working in the new media environment, and how the designer can take account of these in designs for children. It explores a group of seven-year-olds' views about digital multimedia, their narrative texts, and their design ideas for multimedia storytelling. Children bring with them to the interface a different set of expectations, knowledge, abilities, and practices, and designing for children brings with it a different set of demands. The child's perspective is discussed by way of child-identified features of multimedia design that contribute to an engaged child-user experience. Further to this discussion is the way in which children make meaning in computer-mediated environments, bringing together the visual, aural, textual, and navigational elements of multimedia design and content. The notion of learner-centered design is examined to see how its principles align with, and can be applied to, designing children's multimedia (Reeves, 1999; Soloway, 1996a). Activity theory is considered as a framework for conceptualizing educational multimedia (Nardi, 1996). Lastly, innovative participatory design approaches with children are discussed and illustrated by recent research studies (Druin, 1999a; Kress & van Leeuwen, 1996; Marsh, 2005; Pahl & Rowsell, 2005).

The Study

In a rural Church of England school, the mixed Year One/Year Two class had just about finished six weeks of geography and literacy work based upon The Katie Morag picture books by Mairi Hedderwick. Their weeks of cross-curricular work:

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