

# The Face of the Future

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*The technological union of ubiquitous personal computers, cheap high-performance graphics and audio, the Web and its expectations, international standards for showing multi-media, and research into Artificial Intelligence and Text to Speech Synthesis systems has recently resulted in Talking Head interfaces to applications and information. This paper details how our initial observations about how people relate to computer generated Talking Heads helped us to create a more believable and realistic Talking Head – a more humane Talking Head. The paper also presents results from the subsequent evaluation of the realism, believability and acceptability of the new Talking Head. Finally we look at where we go to from here and future applications of the Talking Head Technology.*

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## INTRODUCTION

The concepts of non-human sentient entities and virtual beings in human society have existed for thousands of years in areas such as religion, mythology and folklore (Senior, 1985). These influences provide the rudimentary concepts of Talking Heads (TH) acting as mediators or communicators of a message and facilitators of outcomes. These virtual beings may be physical manifestations such as the robots described by Morris (1985), detailed in literature such as *The Hero with a Thousand Faces* by Campbell (1993) or in video games such as in the people simulator *The Sims* by Maxis (Stepnik, 2000).

The emergence of very wide spread computer mediated interactive experiences is now recognised as having enormous economic and cultural significance (Winston, 1998). Such experiences often use virtual beings, sometimes just Talking Heads, to engage the user, or facilitate the user experience (Coco, 1997). For example, the Microsoft *Wizard Paperclip*, the Internet newsreader *Ananova* and the game character *Sonic the Hedgehog*.

Current knowledge indicates that the effect of these virtual characters is not fully considered or understood by their designers (Murphy, 2000) but that it is important to determine the effectiveness of their function on the user experience. In the light of known models of communication theory, how a TH is represented in this process may cause unintended semantic and effectiveness noise distortion (as referred to in Shannon and Weaver's model (Fiske, 1982)). For example, influences of cultural attitude and disposition may affect the reception of the message, and distortion of information can occur at the various stages of Berlo's SMCR Model shown in Figure 1.

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