

# Virtual Identities: Authoring Interactive Stories in Virtual Environments

by

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## Abstract

Stories form an integral part of our lives. Interactive storytelling enables the participant to actively explore the story world. However, traditional interactive stories has certain limitations such as allowing the user to experience the story from only one perspective and having rather limited narrative with only a transition in time.

The virtual identity approach for authoring interactive stories allows the creation of several virtual identities through the eyes of which a user can experience the virtual world. Therefore, one model can be used to create several interactive stories where the story world adapts according to the virtual identity.

This thesis focuses on the creation of engaging interactive stories out of the same virtual environment for different users by addressing issues such as gender, age and cultural background and for different application areas such as Culture and Education. An interactive storytelling tool is created that can be used to create interactive stories with the virtual identity authoring approach. By using the interactive storytelling tool, the interactive stories can be adapted for different audiences. Therefore, interactive storytelling can become a powerful tool in education and culture to teach people more about certain information, e.g. cultural artefacts.

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## Opsomming

Stories maak 'n integrale deel van ons lewens uit. Interaktiewe stories stel die deelnemer in staat om die storiewêreld op 'n interaktiewe wyse te verken. Tradisionele interaktiewe stories het egter sekere tekortkominge, soos byvoorbeeld dat hulle slegs die gebruiker toelaat om die storie van een oogpunt te ervaar en dit het 'n redelike beperkte storielyn met slegs transformasie in tyd.

Die virtuele-identiteitsbenadering vir interaktiewe stories stel 'n mens in staat om verskeie virtuele identiteite te ontwikkel sodat die gebruiker die virtuele wêreld ervaar deur die oë van die spesifieke identiteit.

Hierdie tesis fokus op die ontwikkeling van interaktiewe stories vanuit dieselfde virtuele model vir verskillende gebruikers deur eienskappe soos geslag, ouderdom en kulturele agtergrond in ag te neem, asook vir verskillende toepassingsgebiede soos byvoorbeeld kultuur en opvoeding. 'n Interaktiewe storie-ontwikkelingsprogram is ontwikkel wat die gebruiker in staat stel om interaktiewe stories te ontwikkel met die virtuele-identiteitsbenadering. Deur die gebruik van die interaktiewe storie-ontwikkelingsprogram, kan die interaktiewe stories aangepas word vir verskillende gehore. Dus kan interaktiewe stories 'n baie belangrike rol speel in opvoeding en kultuur om mense meer te leer oor sekere onderwerpe, soos byvoorbeeld kulturele objekte.

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