

MY IMMORTAL AVATAR

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Status

This project is just getting started and is the proposed basis for an Honors College BS thesis at the University of Arkansas. It's creepy, we know, but ... who doesn't want to be digitally immortal?

Objective

Develop "My Immortal Avatar," a new kind of avatar/chatbot that represents a real person and can talk about the person's life from documented memories and experiences.

Potential Significance

We say *Life is precious*. Yet we humans have no way of knowing much about our own ancestors – what were they like (beyond birth, marriage, and death records), their likes and dislikes, their passions and their reactions to different events during their lifetimes. When a loved one dies, their personality, experiences and stories die with them - even a family member cannot relate their stories exactly. Biography and scrapbooking are two literary genres that help us preserve and tell a person's story. We are planning to develop a third genre based on combining virtual world avatars and chatbots, called *My Immortal Avatar* (or *Digital Me*).

Initial tasks

- Data capture - Develop a diary in an interview form. Interview a subject to capture vignettes from their life (each vignette typically a paragraph long). We can re-use existing diary-interview methods.
- MyChatbot - Develop a personal chatbot that uses keywords from sentence input to retrieve vignettes from the chatbot. Provide minimal logic to avoid retelling recently told stories.
- MyAvatar - From photographs of the subject, develop a facial mesh so the subject's avatar looks like the subject at different stages of their life relevant to the instance being narrated. Optional: color avatar blue.

Future/research tasks

- Voice capture - not hard for recorded voice, but need to learn state of the art voice manipulation for generating a voice based interaction / narration system using a person's actual voice.
- Facial expressions - IEEE standard for a taxonomy of facial expressions can be used, but need to understand how to build an avatar that can change face and voice depending on the story - may involve embedding expression or voice markup commands in text.
- Aging an avatar - so they start out young and end up old as they tell the stories from their appropriate age. Could employ a slider timeline.
- Deeper semantic model
 - use interview questionnaire to populate initially
 - capture subject's world view and personality on issues that matter to them via questionnaire
 - add memory to the avatar of things they would know about during their life (news of their day) or that were told to them – a knowledge base
 - mesh relevant memories from different people so as to offer a broader view and understanding of the psychological impacts of historical events – a composite person.
- Avatar archiving - how to upgrade first generation avatars based on today's primitive technologies (like Second Life) to future platforms.

About the authors

Tanmaya Kumar is an Honors sophomore, majoring in Computer Engineering in the Department of Computer Science and Computer Engineering at the University of Arkansas.. He has been working on the Everything is Alive (EiA) research project (<http://vw.ddns.uark.edu>) at the University of Arkansas since December 2008. Craig Thompson leads the EiA project.

Related work

- C. Thompson, P. Parkerson, "DBMS[me]," *IEEE Internet Computing*, May-June 2004, <http://csce.uark.edu/~cwt/DOCS/2004-05--PAPER--IEEE-Internet-Computing--DBMS-of-me.pdf>
- MyLifeBits Project, Microsoft, <http://research.microsoft.com/en-us/projects/mylifebits/>
- M. Weal et al., "Artequakt: Generating Tailored Biographies with Automatically Annotated Fragments from the Web," *International Journal of Human -- Computer Studies*, Jun 2007, Vol. 65 Issue 6, p537-562.

Discussion Topics

- Is *My Immortal Avatar* too creepy ... or is it inevitable? Will it become a digital diary handed down to future generations?
- Could immortal avatars interact with each other (gaining new experiences)?
- How should we handle privacy? Is some avatar knowledge only available to family members or is it public after some statute of limitations?
- Can just anyone access and converse with any avatar or is this controlled with permissions?
- Can anyone else edit someone's avatar? Should the avatar's story be seen as a revisionist history or the truth?
- Can an immortal avatar slander another or a living person?
- If we build a Second Earth that models the entire earth, and it has a history placing objects into their historic context, will immortal avatars populate this world? Will everyone eventually wear recording devices that record their track history, everything they ever say and do? Could all data sources be meshed so someone later can visit my avatar and know that on 2/5/2010, it was a dreary day and I sat in my room working on this paper?