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The Human Avatar Project

1.1 Motivation

Today's computer games and online virtual experiences featuring human avatars provide users with a high level of immersion and control through their 3D virtual simulations, but for all of the options and "add-ons" they provide, they seem to be unable to dig beneath the surface. As they cater to increasing the user's arsenal of choices, astute players will realize that something is missing. When the discriminating user zooms in close and stares into the face of the fabricated polygonal manikin that is supposed to represent him, an overwhelming void and lack of meaning is felt. At best, the human avatars of current simulations are an impressive extension of a person's physical presence in the world. However, they feel alarmingly disconnected from the user's inner self.

Digital worlds such as *Second Life* (Linden Labs) and *The Sims* franchise (Maxis/EA) allow users to create a detailed three-dimensional likeness of the user, one that mirrors the user's appearance or the appearance that the user would like to have, down to a tattoo on the arm. The user can precisely manipulate the created body like a puppet, using onscreen buttons and a keyboard, causing it to navigate a house, a terrain, or a club in cyberspace and present itself to the puppets of other users. This puppet, soulless and robotic, obeying the user's every command, has come to be known as an avatar.

Avatars, at least those that are in some way humanoid, seem to have their roots in the concept of a character. Characters are the agents of stories, only the person reading a book or

watching a film does not interact with or control a character. A character affects and is affected by the fictional world that it occupies in a way that is predetermined by the story's author. Watching or reading about a character lacks much of the stimulation that real-time interaction provides, but movies and books do have certain experiential qualities which games lack. In particular, they probe the mind and the feelings of a character in order to involve the user emotionally and intellectually. Most games involving human characters or avatars only attempt to give players an adrenaline rush, a very rudimentary form of entertainment, with a bit of puzzle solving thrown in.

My interest in interactive entertainment has grown out of a background in film theory and production and visual art. As games become more real and life-life, employing humans as characters or avatars, they inevitably face a more pressing comparison with the older and more mature medium of film. I believe that attempting to mimic film in its technical verisimilitude is a worthy cause, but it is only half of the battle. In film lies a richness and depth that has evolved over many decades. Games employing virtual actors have far to go in obtaining these nuances, but introducing a new angle to interactive experiences, one that is not solely concerned with outward appearances and the all-mighty control over a body, may help steer them in a more meaningful direction.

1.2 **Goals**

Based on these observations, my intention has been to investigate and devise alternative modes of representation of a human avatar to reveal more about the human mind and emotions in the experience of controlling one of these simulations. Providing an alternative way for an avatar

to be represented in relation to its user may be the key to creating an experience that is instructive and rich in metaphor in the way that films can be.

I believe a fundamental part of making the user feel more connected to his or her avatar is not to give him more control over its body, but instead to introduce a greater level of complexity to their psychic relationship. On a physical/perceptual level, a typical avatar occupies a unique territory of identity somewhere between self (unseen first person navigator) and other (character). My goal is to extend this unique hybrid form of identification to the mental-emotional level.

1.3 Driving Questions

In developing an avatar simulation that supports a new kind of user-avatar relationship, one in which users are encouraged to identify with something larger than the body and its appearance, a primary question is how the mind and emotions may perform a key role in the simulation. How can the mind of the user/avatar be represented? This is a nebulous area, one from which many designers may shy away because it inevitably raises the unfathomable question, whose mind? Is it the user's mind or the avatar's? Can the avatar appear to have its own mental processes even though its mind is not completely its own?

What about multiple users? Can multiple users share the same avatar? Since people are very used to localizing identity in a physical body, this is an interesting proposition. How might a number of users be able to simultaneously affect a single avatar without stepping one another's shoes?

To answer the above questions, a designer may need to find a way to externalize the thinking process — to visualize it on screen. And then there is still inevitably the question of

actual content to engage the user or player. Creating a meaningful interactive meditation on the mind and the emotions necessitates some kind of concretization in the form of a story or instructive scenario.

1.4 Initial Concepts

At the outset, the intention was to design an experience around a fundamental dynamic struggle of the human mind. The battle between positive and negative thinking (resulting in positive and negative life habits) is one such universal dynamic.

1.4.1 Editing Joe Schmoe's Mind in a Wiki

An initial idea was to have multiple users edit the thoughts of an average Joe in a Wiki. Changing the thought patterns would cause changes in a real-time video stream of Joe as he goes about his daily routine. He would either develop positive or negative habits depending on particular keywords in the text.

1.4.2 Mental Trap of the American Life Style

Another idea was a more developed exploration of the mind's affects on the fate of the human body. This turned out to be a rather pointed criticism of the daily American lifestyle, particularly the pervasive problems of eating fast food, overworking and alcoholism, collectively contributing to the ill health of the average American. The idea was that these negative habits were the result of negative thought patterns, and each negative habit was directly associated with a concrete symbolic piece of architecture in a suburban cloudscape such as a daunting office building or a fast food restaurant. (Fig. 1) The avatar's body would evolve physically in the

"World View", getting fatter and sicker from falling into negative habits, and getting leaner and healthier from following positive habits. However, a satisfactory mental-emotional component was missing. Original mockups of the "Mind View" for this proof of concept did not show the avatar nor did they portray his emotions. (Fig. 2)

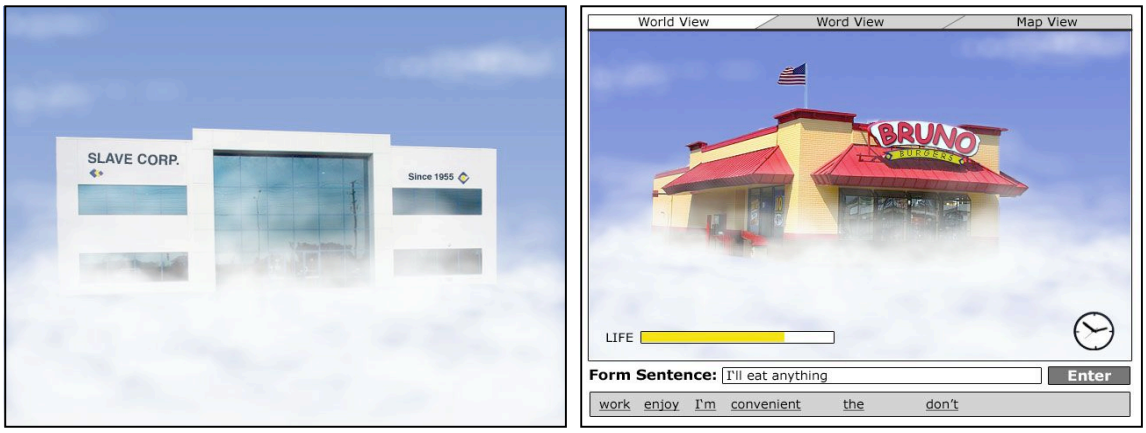

Fig. 1: Mockups of the "World View" in a previous proof of concept

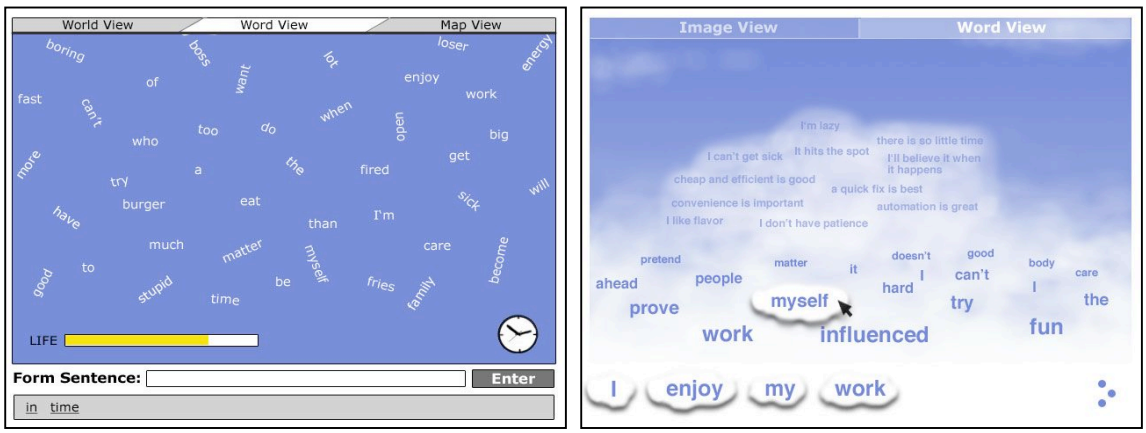

Fig. 2: Mockups of the thought formation process in previous proofs of concept

1.4.2 The Emoting Multi-user Chatterbot

The missing component came into fruition with another proof of concept: an emoting multi-user chatterbot. A chatterbot is a type of avatar that is programmed to respond "intelligently" to user input, such as text. The idea was to create a unique type of "chatterbot" that interacts with multiple users over the Internet and retains memories of its conversations in the form of keyword-triggered emotions. The chatterbot's behavior and dialogue would emerge and grow in numerous ways as it evolved emotionally over time. (Fig. 1) If users entered too many negative or disparaging words when conversing with the avatar, he would grow more angry or depressed and perhaps seek out therapy from future users.

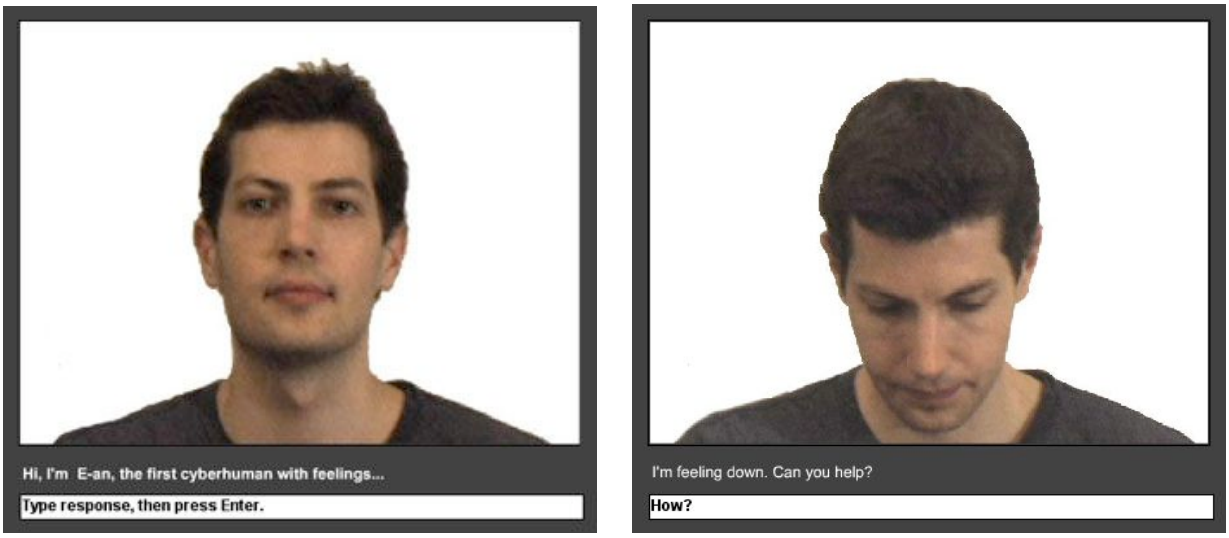

Fig. 3: The emoting multi-user chatterbot

In the final proof of concept described below, the qualitative nature of the mind and the emotions, as opposed to physical health, form the crux of the game's message, and each life structure represents a psychological "chamber of experience."

1.5 Final Concept

The final concept**,** tentatively entitled “Life Sentence.”, is a web-based virtual experience/game in which multiple users channel their collective consciousness into the mind of a single transpersonal human being. Exploring the differences between the effects of positive and negative thought patterns on a person’s inner and outer life, the application features a shared avatar that evolves emotionally based on the types of thoughts it receives and the experiences that are generated from these thoughts.

In the ‘game’, a designation that many ludologists may disagree with but which I find useful in describing the experience, users are presented with an immutable body (a shell of a person) and are invited to raise this human from a state of nothing-ness (no mind and hence no life) to a state of something-ness by giving him thoughts. As opposed to directly controlling a set of externalized behaviors, users determine the avatar’s everyday routines and experiences indirectly by shaping his mind. Keywords contained within thoughts are mapped to particular emotions or to the creation of particular life structures such as home, work, the store, and school.

Users start out with a very small pool of words from which they can form thoughts in the avatar’s conscious mind. A minor portion of the words are “useful” in that they can be used to form practical thoughts. Practical thoughts, which typically begin as need or desire thoughts, translate into concrete advances, acquisitions, or changes in the avatar’s life, usually represented by the formation of a life structure that the avatar will subsequently visit on a regular basis. Many of the other words are negatively or positively inflected and affect the avatar emotionally while also affecting his experience inside the life structures that are formed. These experiences introduce their own specific words (negative, positive and practical) to the thought-stream, adding complexity (and potentially neurosis) to the avatar’s inner life as his outer life expands.

The avatar may exhibit a variety of emotions at any time based on various combinations of words entered in thoughts. When the avatar is caught up in a negative emotion from thinking too many negative thoughts, his ability to think practically diminishes. Hence, the number of useful words available declines in favor of more useless ones. In addition, negative thoughts breed more negative thoughts and positive thoughts breed more positive thoughts. Negative emotions increase the chances of the avatar having a negative experience inside a life structure while positive ones have the opposite effect. The experiences themselves create visible short-lived emotional reactions, but only thoughts entered by users have the capacity to perpetuate and strengthen these emotions.

When the accumulation of toxic thoughts reaches a critical level (all positive thoughts have vanished from the thought stream), the avatar commits suicide, but only his mind and life evaporate. His physical body is reincarnated in a state of emptiness. According to the current plan, this outcome is inevitable in the absence of any rewards or other results, though the avatar can attain many emotional and experiential highs and lows along the way.

1.6 Interface Design and Interaction

Fig. 4 shows a rough pre-visualization of the interface for the experience. In the Mind View, users actively form thoughts by dragging or clicking words into the mind bubble as they drift by in the cloudstream. The emotional status of the avatar is shown in a changing facial expression. The Life View displays the avatar's body, as it moves from one life structure to another once they have formed in the clouds. The design and mechanic of interaction will both undergo considerable changes in the project's development as described in the *Methodology* section of this document.

Fig. 4: Initial pre-visualizations of the 'Mind View' and 'Life View' in Life Sentence.

As a web-based online virtual experience, anywhere from one to the maximum number of users allowed by a server may enter and play simultaneously, but unlike most multi-player games, a single player alone at one time may suffice for an enjoyable user experience. The results of each user's choices during a single session are recorded by the system and have a cumulative effect (on both the avatar and his life) that future users can see. Further details of multiple user interaction are addressed in *Methodology*.

1.6 A Model of User Motivation

Based on the principles of interaction outlined above, users will be led to adopt one or more of 3 main roles in the avatar's shared mind:

a. The optimist: this user concentrates on seeding positive thoughts in the avatar's mind in an effort to make or keep the avatar content

b. The pessimist: this user subversively tries to bring down the avatar emotionally by seeding negative thoughts in his mind

c. The pragmatist/ achiever: this user tries to follow need/ desire (useful) thoughts in the midst of the chaos/ battle between optimists and pessimists in an effort to build a life for the avatar and have him be successful

These roles, of course, will often overlap and coincide with one another, as accomplishing one goal may be dependent on accomplishing another. For instance, the avatar's life success is partly determined by the quality of his thoughts. (See *Methodology*) A user may also decide to give up on playing one role and concentrate on another. None of the three paths lead to an ultimate reward. Positive feelings make the user crave more positive feelings, and desires lead to bigger desires endlessly. If there is any primary objective to the experience, it is to promote a certain degree of mindfulness or attentiveness to one's thoughts, a valuable exercise espoused by both Buddhists and some cognitive psychologists. The user is posited simultaneously as a participant in the stream of consciousness and as a "watcher, 'the awareness that watches and responds to the meanings that appear in the stream of consciousness.'" (Ekman, 73-74)

1.7 Philosophy

Life Sentence. presents a psychological framework that is universally applicable to all human beings. It explores the relationships between thoughts, needs/ desires, emotions, and reality, highlighting the differences between the effects of negative and positive thinking on an individual's inner and outer life. The project owes itself to a mixture of Eastern, Western, and New Age thought.

1.7.1 Zen

One of the driving principles behind Life Sentence. is an outgrowth of Zen Buddhism. By positing the mind as the source of manifestation, it rejects the notion that outward experiences alone account for a person's state of wellbeing. Rather, thoughts themselves are shown to be the main obstacles to clear seeing and the main culprits behind emotional distress. The project maps this spiritual perspective to a set of Westernized visual elements pertaining to everyday life and material acquisition in the suburbs, thereby presenting them in a new light.

This simulation presents a model of the reflective, rather than the functional, mind. The reflective level of the mind consists primarily of thoughts that either trigger emotions or have no actual value other than to create clutter. One will be able to see that the avatar's body runs through its daily routine in spite of any thoughts. In fact, it may become quite apparent that having fewer of these useless thoughts floating around makes it easier to locate the useful ones that help the avatar fulfill his needs.

1.7.2 The Law of Attraction

Another main principle at work in the game is the Law of Attraction, known by some as "The Secret". The numerous teachers of this basic spiritual message ascertain that what we think, whether positive or negative, is what we attract in our lives. For instance, if we are harboring angry thoughts or emotions inside, not necessarily at the conscious level, we are likely to encounter situations and experiences in our lives that reflect or enhance that feeling. [source coming soon]

1.7.3 Maslow's Hierarchy of Needs

A psychologist named Abraham Maslow theorized that human needs unfold and evolve in a certain order. His Hierarchy of Needs, as it is widely known, states that man first seeks to satisfy physiological needs, including food, water, sleep, and comfort. Once these are fulfilled, he will seek out safety and security, including employment and bodily health, and then continue on to higher order needs: love and belonging, respect, self-esteem, and finally self-actualization (creativity, spirituality, spontaneity, acceptance, etc.). [source coming soon] In Life Sentence., the avatar is born in an inchoate state, and the experience is designed in such a way that he progresses through a series of needs/ desires in rough approximation of this hierarchy. For instance, thoughts of food must precede thoughts of getting a job and only when a job has been procured can the avatar consider obtaining a family.

1.7.4 Carl Jung's Collective Unconscious

Swiss psychiatrist and pioneer of analytical psychology Carl Jung devised the term "collective unconscious" to refer to archetypal patterns or symbols in the psyche that are ingrained in man's primordial nature and hence common to all human beings. Examples include the hero, the anima/animus (masculine/feminine), the mother, and the shadow (repressed secrets). The relationships between these archetypes become enacted in our life dramas. While Life Sentence. does not specifically draw from any of Jung's archetypes or deal with parts of the mind that are completely inaccessible, it does reaffirm the notion that the way one thinks is not individually determined. It is a collective psychological predisposition. [source coming soon]

1.7 Target Audience

This avatar simulation is aimed at a broad audience, though it will probably be enjoyed most by the following types of people:

- The self-reflective, mature gamer bemused by conceptual, exploratory virtual experiences
- The *Sims* gamer looking for a new psychological dimension to the human avatar experience
- The casual gamer looking for a mix of metaphor and entertainment beyond the mechanics of a puzzle or psychomotor action simulation

1.8 Design Question

With the information overload in today's digital experiences – buttons, panels, instruction manuals – it is my intention to develop an interface that obviates such accoutrements. How can a virtual experience or game be made approachable and intuitive for users without the aid of an instruction set? This is a key question that is answered in the *Methodology* section of this document.

1.9 Form and Aesthetic

Life Sentence. takes the form of a multi-user Internet game featuring a video-based avatar. It is designed to run in a standard web browser and consists of the following components, which are each considered in detail in *Methodology*:

1. a database of words from which thoughts are formed
2. animated (moving) and interactive text
3. audio clips (voice-over and atmospheric sound accessed from the database)
4. image sequence animations created from full-motion video

5. 2D photographic art/ illustration

The overall aesthetic style is photo-surreal, evoking a subjective dreamlike aura. The use of full-motion video, a technique of creating interactive content with sequences of video clips, is intended to lend Life Sentence. a unique aesthetic that is appropriately human and empathetic. The decision to eschew a digitally spawned avatar also effectively eradicates associations with conventional games such as *The Sims* (Maxis, 2000) and *The Sims 2* (Maxis, 2004). Affecting a "real" human being, as opposed to a cartoon, on an emotional and mental level will likely have a more visceral impact on users. There is potentially a rather haunting, but pleasurable feeling to be derived from putting one's own thoughts into the husk of an individual that is known to be existent in the real world but whom has given up his identity in a virtual world.