Avatar Art: Transformative Outcomes of the Advanced Identity Representation Project

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Abstract

Once a fantasy of cyberpunk literature, digital avatars are now seamlessly integrated into popular culture. Yet, current avatars are quite limited in responding to real world issues of social identity injustice or construction of personal narratives. The author has initiated the Advanced Identity Representation (AIR) Project to develop transformative social identity representation systems that challenge disempowering norms and allow for creation of rich, imaginative, and dynamic ways for users to represent themselves. The AIR Project builds on a novel interdisciplinary framework that applies insights from imaginative computational discourse generation (Harrell, 2007a, 2007b), cognitive categorization (Lakoff, 1987; Santa Ana, 2002), and science studies and sociological theories of classification (Bowker & Star, 1999). Expanding on results published in (Harrell, 2008a, 2008b, 2009), this paper presents a series of cultural productions that can be called "Avatar Art," in which modular visual representations combine with back-end data structures and algorithmic generativity in order to make critical and expressive statements regarding identity construction themes including race, gender, community, marginality, exclusion, and power.

Introduction

Social identity computing technologies such as games, virtual worlds, and social networking sites provide infrastructures used to stage ourselves as fantastically imaginative avatars, yet they often hardcode limited, popular, naive, and often disempowering identity models. A goal in the works discussed below is the invention of avatar technologies for social critique. These technologies also can enable increased avatar customizability and agency for traditionally underserved and ill-represented groups. The author's work and that of the Imagination, Computation, and Expression (ICE) Lab (Director, Harrell) moves beyond the notion of avatars as modular dolls, player characters, or even proxies for users to interact in a virtual world. They become templates for critical play and empowerment regarding social identity forms. The outcome is a new form of **avatar art** that stretches the definition of what an avatar is and what it is for. The key aspects of the theoretical framework informing a series of recent avatar artworks is summarized below, followed by a discussion of specific works and themes that they explore. A brief conclusion follows, articulating emergent observations and results from this body of work.

Theoretical Framework

The AIR Project is a multi-year endeavor in the ICE Lab at the Georgia Institute of Technology that serves to develop theory and technology for users to represent complex, dynamic social identities in digital media such as virtual worlds, games, interactive narratives, and social networking sites; it is situated at

the intersection of cognitive accounts of social identity construction, social classification infrastructures research, and digital media theory and technologies.

Cognitive Categorization

The AIR Project draws on, in contrast to traditional and “folk” theories of categorization, empirically-based cognitive science theory (Lakoff, 1987) which asserts that categorization is a matter of both human experience and imagination. George Lakoff asserts that meaning is based upon human experience, consisting of embodied perception of the world, experience of motor activity, and shared cultural knowledge, and that meaning is constructed by imagination, including mapping concepts from one to another as in metaphor and metonymy, and dynamically construction of mental imagery. This view of categorization draws on a growing corpus including research from psychology, computer science, neuroscience, anthropology, in order to reveal a convergence of evidence disputing the traditional theory.

Important for the purposes here, Lakoff describes a metaphor-based account of how imaginative extensions of “prototype effects” result in several phenomena of social identity categorization that have proven useful for inspiring the design of AIR Project avatar artworks including (Lakoff, 1987):

- **Representatives** (prototypes): “best example” members of categories
- **Stereotypes:** normal, but often misleading, category expectations
- **Ideals**: culturally valued categories even if not typically encountered
- **Salient Examples**: memorable examples used to understand/create categories

The avatar artworks below often entail computationally modeling phenomena that define normative expectations and stigma (stereotypes, ideals, salient examples, etc.) within computational identity applications and enabling the possibility for critique and experimentation with identity models that compel users to move beyond disempowering expectations.

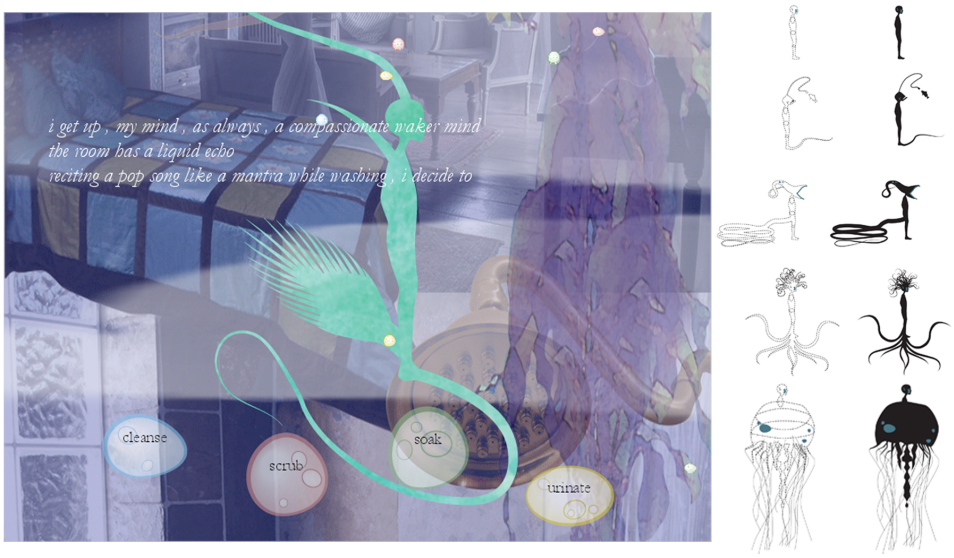
Sociology of Classification

Research in classification from sociology and science studies such as articulated in (Bowker and Star, 1999) has been influential in developing this series of avatar artworks. Toward accounting for the interaction between individuals’ social identities and classification in different communities, special attention should be paid to their highlighted concepts of membership, naturalization, marginalization, and boundary objects. **Membership** is the experience of encountering objects and interactions native to particular communities and increasingly engaging in naturalized relationships with them. **Naturalization** refers to deepening familiarity with use and enactment involving such objects and interactions. The problem with enforced naturalization is that it always creates problems of marginalization. **Marginalization** can occur through exclusion or through multiple memberships in communities where an individual must switch frequently between interaction and object use protocols within each community, often with varying degrees of success. The type of marginalization discussed here refers to exclusion or difference from normative behaviors and/or dominant, privileged, and/or hegemonic communities. **Boundary objects** support communication between communities.

Avatar Artworks

The following presents a series of avatar artworks and discussion of particular themes in categorization and classification that they address.

Loss, Undersea |Theme: affect-driven transformation



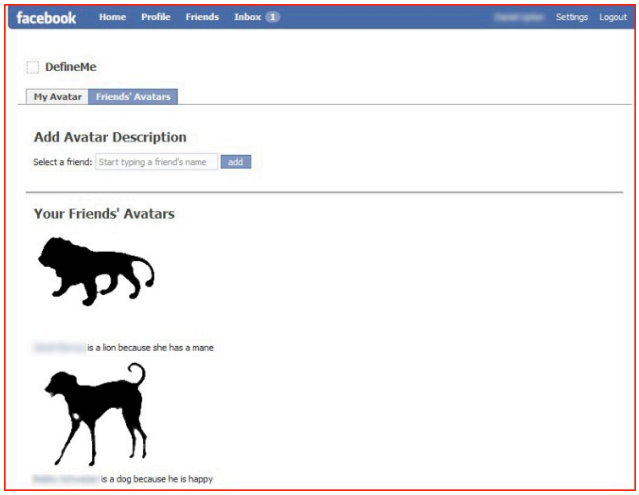
Loss, Undersea is an interactive narrative/multimedia semantics project by the author in which a character moving through a standard workday encounters a world submerging into the depths – a double-scope story of banal life blended with a fantastic Atlantean metaphor. As a user selects emotion-driven actions for the character to perform, the character transforms – sea creature extensions protrude and calcify around her/him – and poetic text is generated narrating a loss of humanity and the human world.

Chameleonia: Shadow Play | Theme: affect-driven transformation

Chameleonia: Shadow Play (with Daniel Upton, Tonguc Sezen, and Donna Sammander) is a prototype critical identity politics game in which an avatar and its shadow (performed and imagined selves) dynamically transform, along with the cinematic presentation of the scene, based on player selected gestures and the current location. In this game, a continuously walking player character changes in

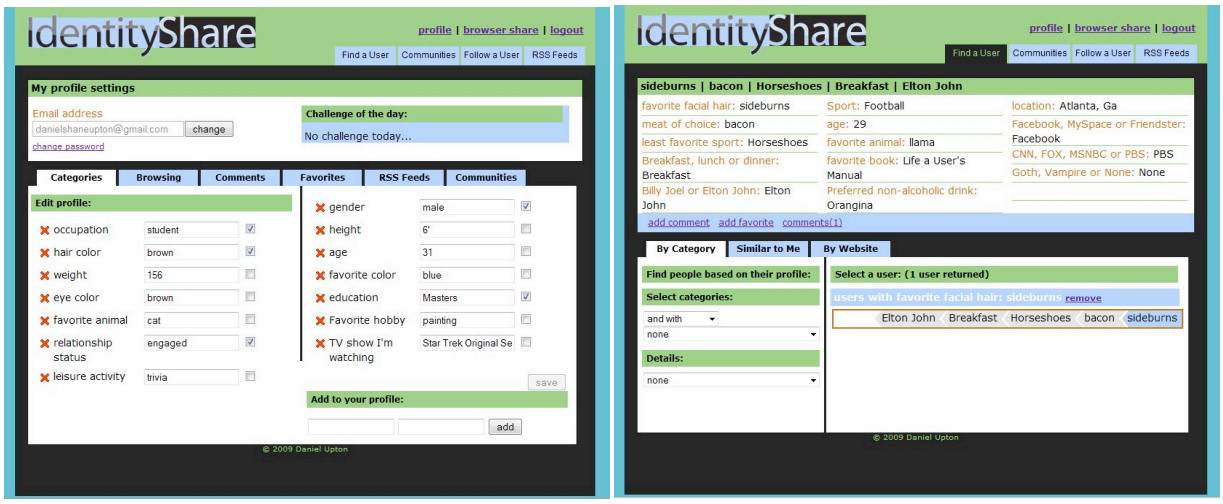
response to both gesture and context (e.g., suburban, corporate, park or urban scenes) while the character's shadow transforms differently in parallel. The player character represents the external (performed) self, while the shadow represents the socially-constructed and imagined self. The difference between the two illustrates a type of double-consciousness, Bowker and Star's concept of torqued identity, where one's self conception differs from the way society views her/him. (Bowker & Star, 1999; Du Bois, 1903) The shadow transforms according to a concept associated with the gesture, such as "commerce" or "aggression." It may be represented as a bazooka-toting cowgirl/boy sipping a softdrink – at the next moment s/he may be represented as a gold chain and pocketwatch wearing tycoon with stock charts bursting from her/his top-hatted head. The game suggests how people become both naturalized and marginalized in communities and social contexts. One of the major ways in which humans naturalize within communities is by displaying contextually appropriate gestures.

Define Me | Theme: Torqued identity, classification by others, double consciousness



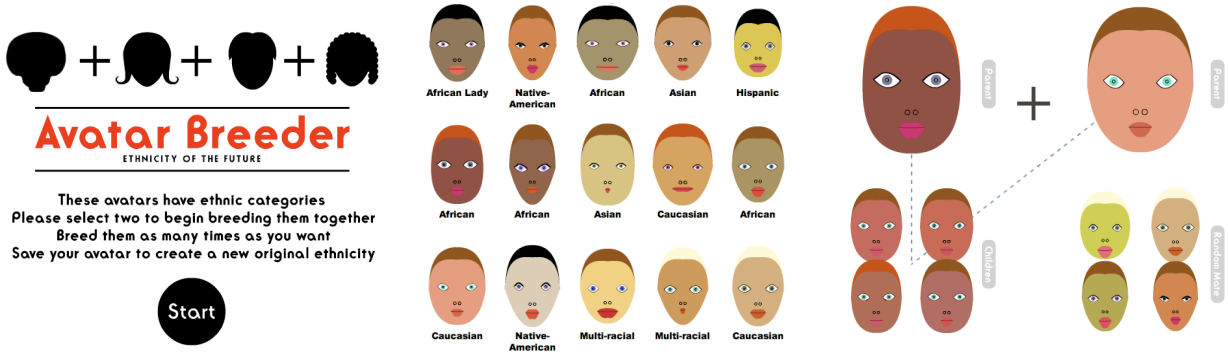
The first AIR Project system constructed is a Facebook application entitled *DefineMe*, the first version of which is called *Chimera.* (Harrell, Upton, Medler, & Zhu, 2009) Specifically, it implements aspects of Lakoff's metonymic idealized cognitive models for categorization to allow users to co-construct their own and others' avatars as boundary objects. (Lakoff, 1987) The premise behind *DefineMe* is to allow users to define each others' avatars using both commonplace and abstract metaphors. Users can append metadata to other peoples' profiles to drive dynamic generation of avatar images. The initial content domain consists of animal metaphors that can be mixed-and-matched algorithmically. Animal metaphors are potent entrenched metaphors for human personality. (Turner, 1996) (e.g., sneaky weasels or docile sheep), however this animal metaphor-based version is only an initial experiment. The model extends to more directly socially engaged categories such as social scenes, fashions, or movements.

Identity Share (Daniel Upton) | Theme: user generated classification



Identity Share is a social networking site for “non-friends,” and Daniel Upton’s MS thesis project in Digital Media, developed using the same database system as DefineMe. (Harrell, et al., 2009) The system allows for social networking by providing users with facilities to construct profiles, follow and comment upon other users, and perform game-like tasks that encourage users to consider exploring both like and different profiles of others. *Identity Share* offers a novel means of self-representation based upon open-ended categories and tags. Standard profile models that typically include normative categories such as age, gender, location, and race are replaced with a customizable list, growing as categories are added.

Avatar Breeder (Daniel Upton and Jisun An)| Theme: racial classification systems



Avatar Breeder is an algorithmically generative satirical artwork constructed by Daniel Upton and Jisun An in the author’s graduate course LCC 6312: Design, Technology, and Representation. It is intended to undermine normative categories of identity encountered on bureaucratic forms and in everyday lived experience. In such discrete categorization systems, ethnic identities can be based on geography, nationality, ancestry, family, culture and sub-culture, religion, language, race or any combination of these. *Avatar Breeder* allows a user to breed avatars together to create new ethnic categories, labeled by users. The user is provided with an initial pool of avatars, each with a labeled ethnicity seeded with categories from a Georgia Institute of Technology admissions form.

Conclusion

Current avatar creation systems afford some possibilities unavailable in the real world, e.g. dynamic visual transformation, clear statistical modeling of ability, self-presentation as flat text, discrete and neat categories for people to put themselves into, embeddness within a literalized (instantiated via data-structuring) networks, and many other features that fall out from the characteristics of the computational medium. These transient and dynamic representations of self exhibit what the author has termed the *polymorphic poetics* of the medium. (Harrell, 2009 (accepted)) Yet, the loose fluidity of real world categories, embodied or gestural meaning, improvisational communication, affect, internal self-definition, and much more are missing. Furthermore, in digital environments issues such as stereotyping, prejudice, identity profiling, passing (as a privileged category member), and many other disempowering or contentious phenomena persist. Computational identity infrastructures have been designed by computer scientists, programmers, and digital artists who may not have critically experienced, engaged, criticized, or considered such phenomena in creating systems. Much less often have they engaged the state of the art theory from social science and the humanities regarding social identity. The result has been attributes and characteristics the appear to be real world phenomena: canned gestures, statistics with labels like intelligence or dexterity, collections of photos, descriptive text entered in appropriate fields, yet often have purely functional goals (e.g., statistics and abilities in games that serve only to manage resources like hit points), and the fields structured to represent characteristics like gender, occupation, friend status, and more to create structured ontologies of the world quite different than in human lived and cognitive experience. Much less do these identities properly change over time or form coherent narratives. The Avatar Artworks above represents humble first steps in the AIR Project toward doing better.

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