

The Chimeria Platform: An Intelligent Narrative System for Modeling Social Identity-Related Experiences

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Overview

We demonstrate the Chimeria Platform (see figure 1) that computationally models aspects of social identity dynamics for use in digital media such as in videogames and social networks. The Engine models users' degrees of membership across multiple categories as gradient values, enabling more representational nuance than binary statuses of member/nonmember. The Application Interface handles user interaction and visuals for experiencing the narratives. Domain Epistemologies specify domain-specific ontologies that describe cultural knowledge and beliefs for each narrative. Our Visual Narrative Editor GUI is being developed to make authoring more accessible to a wider audience.

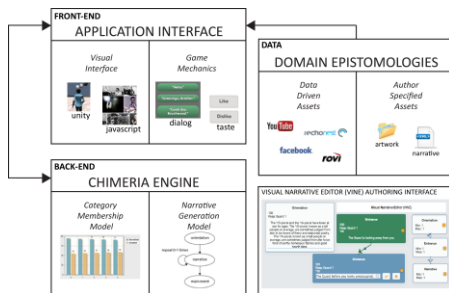


Figure 1: Chimeria Platform Architecture Overview

Implemented Narrative Applications

We present two interactive narratives implemented with the platform. First, in *Musical Identity Narrative*, a user's musical preferences are used to generate a narrative conversation on a social network. Presented as posts by the user's friends commenting on the user's "musical identity" (Hargreaves et al. 2002), the resulting narrative may describe passing as, or being excluded from becoming, a member of a social group whose identity is based on a type of music. Users' actions change their identities over time, e.g., reinforcing or changing a group affiliation or being marginalized. 6 of 8 user-test participants felt that their actions affected the system and reacted to their choices, stating "the system was adapting to my musical preferences" and "characters were trying to figure out what genre

of music I liked best, and got touchy when I didn't fit into a category." These are promising results as conveying social phenomena (e.g., privilege, marginalization) is a goal.

The second application, *RPG-Gatekeeper Narrative*, models a common role-playing game (RPG) scenario – a player trying to get past a NPC guard to access a restricted area. Drawing on sociologist Erving Goffman's theories of stigma and impression management (Goffman 1963), choices shift the NPCs model of the user's membership in relation to the "discredited" (prohibited) and "accepted" (allowed access) categories. Users think in terms of two types of goal: (1) gaining access, and (2) how they think about themselves (e.g., maintaining authenticity as a member of an initial social group vs. trying to pass as a member of another group to achieve the benefit of gaining access).

Modeling such social identity-related experiences captures aspects of the stakes and power relationships often at play in real world social interactions (Harrell et al. 2014), (McCoy et al. 2010). User-test participants expressed interest in seeing this type of conversation in similar games. Remarks such as "the main success is accomplishing the goal (getting in) but depending on how much the player wants to be 'true to themselves,' success could also be how little they try to fit in," indicated awareness of our aim for the scenario to highlight trade-offs of impression management rather than simply success at passing

In summary, we show the utility of our platform for authors and the effectiveness of interactive narratives created with it for modeling and expressing narratives in which social identity matters. We seek to develop the platform and visual authoring tools to enable other authors to create a greater diversity of narrative and playable experiences.

References

- Goffman, E. 1963. Notes on the Management of Spoiled Identity. New York, NY: Simon and Schuster.
- Hargreaves D.; Miel D.; and MacDonald R. 2002. What are musical identities, and why are they important. *Musical Identities*, pp. 1–20. Oxford, U.K.: Oxford University Press.
- Harrell D. F.; Kao D.; Lim C.; Lipshin J.; Sutherland A.; and Makivic J. 2014. Authoring conversational narratives in games with the Chimeria platform. In *Proceedings of 9th Annual Conference on Foundations of Digital Games*.
- McCoy, J.; Treanor, M.; Samuel, B.; Tearse, B.; Mateas, M.; and Wardrip-Fruin, N. 2010. Authoring game-based interactive narrative using social games and comme il faut. In *Proceedings of the 4th International Conference & Festival of the Electronic Literature Organization*.