Beyond the screen: game-based learning as a nexus of identification

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Abstract: Drawing on data from a four-year ethnographic research study of CivWorld, a game-based learning community, this paper argues that moments of identity enactment (e.g. a conversational performance of a student’s knowledge) result in part from the nexus of long-term projects of identity formation (e.g. the project of forming an identity as a student, a teen, a brother). It uses positioning analysis to examine the relationship between moments of identity enactment in social learning communities and temporally longer trajectories of identification. It does so by examining the trajectory of identification (and by extension the arc of participation) of an eight year-old CivWorld participant named Salim as he moves from peripheral towards more full participation in the community, moving from a novice in history and game-play toward becoming an expert over a six month period.

Introduction

It is hard to overstate the extent to which research in the learning sciences, specifically in the field of games and learning, have increased its focus on identity as an important mediator of learning and cognitive processes. Identity has become an increasingly central construct in learning sciences that ties learning in context to long-term knowledge and practices (Gee, 2000; Nasir, 2002; Wortham, 2006; Enyedy et al., 2006). Within the learning sciences, scholarship on ‘games and learning’ has embraced this new analytic direction, emphasizing the ability of games and virtual worlds to recruit players into new identities and knowledgeable practices (Gee, 2003; Squire & Barab, 2004; Steinkuehler, 2004; Barab et al., 2005; Shaffer, 2005). Yet these still exist no clear consensus regarding which descriptive model of identity is widely accepted, or even what the major frameworks for understanding identity. In particular, there exists no clear understanding of how to connect moments of identity enactment to long-term trajectories of identity formation as learner in a given knowledge domain.

In the context of a four-year ethnographic research study of CivWorld, a game-based learning community, this paper argues that moments of identity enactment (e.g. a conversational performance of a student’s knowledge) result in part from the nexus of long-term projects of identity formation (e.g. the project of forming an identity as a student, a teen, a brother). Furthermore, it contends that these moments of identity enactment in learning communities must be understood as being in dialogue with temporally longer trajectories of identification. It does so by examining the trajectory of identification (and by extension the arc of participation) of a young CivWorld participant named Salim (a pseudonym) as he moves from peripheral towards more full participation in the community, moving from a novice in history and game-play toward becoming an expert over a six month period.

Literature Review

A major family of frameworks understands identity to be driven by social interaction – the socially-contingent roles, contexts and macro-structures in which a person exists in their day to day life (see Figure 1). Influenced by linguistic anthropology (Sapir, 1921; Hymes, 1964), pragmatism (Mead, 1934) and interactionist sociology (Goffman, 1956, Blumer, 1962), sociolinguistic research in the post-war period increasingly showed that people’s social, ethnic and gender identities to greatly influence how they speak, act and think in the world (Labov, 1972, Gumperz & Hymes, 1972; Scollon & Scollon, 1981; Gee, 1989). While previous research sociological and anthropological research had previously taken “gender, ethnicity and class as given pramaters and boundaries within which we [humans] create our own social identities”, new research found “language as interactional discourse demonstrates that these parameters are not constants that can be taken for granted but are communicatively produced” (Gumperz & Cook-Gumperz, 1982, pg. 1). Language and identity, in this understanding, are emergent phenomena that mediate each other to some extent, while maintaining some continuity across contexts (Royce, 1982; Le Page & Tabouret-Keller, 1985).
While applied, design-oriented games and learning research has for the most part eschewed a focus on identity, some research has emphasized the importance of identity in learning with games. This research has adopted two general ways of understanding identity relative to the design of a game or game-based learning community. First, it has sought to understand how the design of a learning environment shapes, but does not determine, the way enact different identities within game-related spaces (Gee, 2003; Steinkuehler, 2006). Gee’s (2003) theory of projective identity has been influential in this regard, but it explicitly restricts its focus to the identity work that occurs between a single player and the semiotic-activity space of a single-player role-playing game. Second, this research has examined the long-term, overarching identity transformations that long-term participants in game-based learning communities experience over the course of moving from periphery to full participation in the community (Squire et al., 2005; 2008; see also Barab et al., 2007). These two strands of research have cumulatively generated a tremendous amount of insight into a) how identity works in different genres of commercial video games, and b) how game-based learning environments transform players’ identities (and attendant knowledge and skills) into those of experts. However, there still exist significant problems yet to be resolved on the topic.

For an analytic construct that remains at the heart of analyses of games and learning, however, the theory of identity in games and learning scholarship has not been explicated well in much of the research literature. If a major affordance of games and other new media learning environments is the ability to perform significant identity work, then the successful design of game-based learning communities should theoretically depend on explicit understandings of how to ‘engineer’ both day-to-day engagement via identity resources and overarching transformations of how a person sees themself in terms of the relevant knowledge or activities around which the community is centered. For a game-based learning community to continually spark a young person’s interest and engage them in a long-term process of identity transformation, it must have a certain compelling local alignment of social identity resources at the proximate level of activity.

**Research Background**

This paper is part of a larger study of a four-year long research project focused on creating, sustaining and studying a game-based learning community, CivWorld, that centered on a curriculum created using researcher-modified versions of the Civilization historical strategy game series. The program located at an after-school center in a medium-sized Midwestern city, which had both weekly after-school and daily summer programs, of which CivWorld was one, for young people who were mostly aged nine to fourteen. Attendees almost entirely came from working-class or working-poor families and a eighty-percent of were African-American. Participants both learned about history and geography through custom designed game modules, and learned about information technology and game design by redesigning the game themselves.

This paper focuses on the twin trajectories of participation and identification of young man named Salim, who was Salim was an eight year-old African American male when he started in the CivWorld program in the fall of 2005. With one older brother and one older sister, he is the youngest child in his family, and also
the only child in his immigrant family that was born in the United States. Salim was introduced to the CivWorld program through his brother Malik, who at age 12 was his oldest sibling. It draws on some 70 hours of audiovideo data over the course of 6 months of game play to examine changes in Salim’s patterns of participation as he moved from novice to expert.

Methodology
But what methods do we use to understand the interaction of identity processes across and at multiple timescales – both long-term and short-term – and through multiple contexts? This study does not presume that social identities and practices are entirely incontiguous over time and context. Rather, it understands them to be continuous to a degree, while retaining a varying degree of specificity, dynamism and fluidity. As such, the analysis proposed here will not simply consist of a description of interaction (through language and practice) in these bounded spatial-temporal contexts, but rather attempt to understand it in terms of the overall arc of activity and identity work in the community. Methodologically, it will attempt to accomplish this task by employing an ethnographic perspective on positioning analysis (Gee & Green, 1998; Davies & Harre, 1990; Harre & van Langenhove, 1991). Using the framework of positioning (Davies & Harre, 1990; Harre & van Langenhove, 1991) it examines how one participant’s socially-situated identity is jointly constructed and negotiated in a game-based learning community. However, it extends positioning methods by looking at home the patterns of positioning for one individual change across time, and how modes of positioning appear in one context from others.

Positioning analysis examines how a person’s attributes – their character, status, and the location within the structure of “rights” of social participation are continually established and negotiated in social interaction (Davies & Harre, 1990; Harre & van Langenhove, 1991). This dialogic negotiation of personhood through interaction speaks volumes about their situated social identity in an affinity space. Identity, then, is repeatedly negotiated as people are re-positioned within different modes of social interaction like conversation and narrative. The specifications of one’s position, and their social identity, are not unidimensional or static. Rather a person’s positioning and identity are both fluid and dynamic across social contexts, in conversations with different people, and even within conversations as dynamics change and shift. These ways of locating or specifying a “kind of person” exist in reciprocal relationship with the ongoing dynamic events of an interaction and longer social customs.

Wortham (2006) examines broader, sociohistorical models of identification in terms of how they manifest in specific events of identification. Wortham does so by studying how broader identity tropes (e.g. poor student, rowdy student) – more precisely called metapragmatic models of identity – are assigned to students over the course of one full school year. Such an event-driven analysis provides Wortham with the analytic power that Erickson located in close empirical descriptions of events while maintaining an emphasis on changes in trajectories across time. However, Wortham, perhaps wisely, mostly emphasizes the events and trajectories of identification that occur within the classroom in his analysis. How might such an event-driven analysis be extended to consider the trajectories of identification that students bring with them from outside the walls of their learning environment? This paper considers precisely this question, as it attempt to understand how learner’s everyday trajectories of identification, many of which originate outside the learning environment, inform the events of identification – the enactments of identity – that occur within the learning environment.

For the purposes of this data analysis, there are two important classes of positioning that are relevant to the social identity work that takes place in the interaction below: first-order and second-order positioning. These two types of positioning refer directly to the moral and power assumptions that are embedded in language. “First-order positioning,” for instance, refers to the assumptions of status in conversation using imperatives. In conversation, commands and other imperatives signal that the addressee feels that the addressee is obliged to him or her in some way. When a person can order another to do a thing without yielding a rationale, such an utterance suggests a certain manner or positioning between the two parties. However, such “first-order” positioning breaks down when an addressee refuses a command or requests an explanation. Once one conversant starts questioning “why” they should perform the requested task, the interaction moves into the domain of second-order positioning, and the moral order has to be justified by the conversant who initiated it. Second-order positioning connotes a more egalitarian status relationship between two conversants, as one must compel the other through rhetoric rather than decree.

Results
Malik’s enthusiasm for the Civilization game series, and the CivWorld program, had gotten Salim interested in the program. Salim faced a two major obstacles related to identification upon entering the program. First, he was by far the youngest player among the participants, and he was entering a social cohort that had mostly coalesced during the summer months. The vast majority of participants in the fall program were working-class African-American young men, who seemed to enjoy exchanging competitive, but mostly good-natured, taunts and boasts. Salim, shy and deferential, was socially ostracized by the other older (ages ten to twelve) male
participants in the program, which often resulted in him being subjected to severe punitive competition, rather than supportive collaboration, by these older youth as he sought to learn the game. Second, the program organized mostly competitive and multiplayer game sessions, and Salim had to learn the basics of how to play a very hard game that can take hundreds of hours to master while almost all the other participants – his potential in-game rivals – had learned or learn basic game mechanics and strategies over the summer.

Interactions as novice and outsider
Salim’s brother, Malik, entered the computer lab in which the program was housed. Malik was friends with both Michael and Jason, and regularly hung out with them outside of the program. He was also friendly with Darius and Betti, who were both in his grade-level, from school. Tacitly recognized as one of the more advanced players, Malik held significant social status in the CivWorld community. While Malik exchanged hellos with Darius, Jason and Michael, he ignored Salim in line 25, who was clearly anticipating being greeted. He did not seem intentionally or purposely ignoring Salim, but rather just excited to see his friends. Regardless, Salim, who had twisted around entirely in his seat and watched Malik as he entered, presumably in an attempt to catch Malik’s eye and say hello, seemed disappointed that he had been ignored.

Interaction 1: Salim as novice and outsider
Salim continued to negotiate with Malik and Salim in an effort to get Malik to join the multiplayer game he was playing, and specifically to determine if Malik could play as America. Malik persisted in declining to join the game, and Lawrence had to inform Salim twice that it was impossible for anyone to join the game as America. Salim quickly became the center of attention, however, when Malik asked who was winning the game.

After Malik became interested in who was winning the game, he glanced at the scoreboard on one of the computer screens. Seeing that Greece was in the lead, he asked who was playing as Greece, then looked over at Salim’s screen and saw that it was him. Despite previously having minimal interaction with his brother, and then only interactions that had been initiated by Salim, Malik quickly shifted his attention to Salim and Salim’s game. Getting very excited that Salim was at the top of the scoreboard, Malik excitedly congratulated him on his performance thus far in the game. As Salim grinned widely and Jason and Marcus turned to watch, Malik repeatedly and animatedly praised Salim for being in the lead. Malik emphasized how impressed he was with Salim by raising the volume of his voice, over-stressing words, and over-extending exclamations. While his attempts to enter into conversation earlier were not embraced by his brother, Salim’s in-game performance attracted significant notice and affection.

Immediately after Malik congratulated Salim, Jason and Michael, both friends of Malik, conspired to attack Salim. Perhaps they were threatened by the attention Salim was receiving from Malik, or perhaps they were worried that Salim’s in-game successes might translate into broader recognition within the CivWorld community, but the immediacy of their response after Malik’s loud praise of Salim suggests a causal connection between the two. Over the remaining hour and fifteen minutes left in the program session that day, Michael and Jason focused their in-game energies on attacking Salim. During this time, they periodically erupted with another episode of loud taunts directed toward Salim. Salim, conversely, for the most part did not respond to Michael and Jason, but directed his attention toward fending off their in-game attacks. Eventually, with five minutes left in the game, Salim did experience a significant loss – his capital city was captured by Jason. While Salim seemed disappointed by this development, he did not seem frustrated or despondent, and actually appeared to be proud that he had defended his civilization against both Michael and Jason for such a long time.

After interaction: enforcing Salim’s positioning
Malik’s arrival set off a series of changes in the discourse of the space that are important for understanding Salim’s identity relative to the CivWorld program in terms of both his relationship towards the activity of game play in the space as well as the social space around it. Two themes emerged in the continuities and discontinuities of the group’s discursive practices that took place immediately before and immediately after Malik arrived at the program. First, Salim was recognized by his brother in a way that he had not been prior to his arrival. Second, the way in which Michael and Jason positioned Salim changed significantly and swiftly as a result of this recognition.

1) Malik’s recognition of Salim - Sometime, but not immediately, after his arrival, Malik excitedly recognized Salim’s in-game achievements, which had the implicit effect of elevating, or opening up the possibility of elevation, of Salim’s social status role in the group. After ignoring Salim when he entered the program room and began greeting all his friends, Malik later changed course and began excitedly praising Salim and drawing attention to his in-game achievements. Far from the illocutionary marginal status that was implicit in Malik’s greeting ritual that ignored Salim, this sincerely excited and loud recognition of Salim’s achievements put Salim at the center of the group’s attention. In fact, Malik, who was generally recognized as one of the most central members of the group and one of its best Civilization players, suddenly appeared to be able to barely restrain his excitement and affection for his brother because of his in-game achievements. He animatedly rubbed Salim’s head, patted his shoulders, and jostled neighboring chairs as he expressed his astonishment and pride that his brother was doing so well in his game play. His praise had the effect of raising the possibility that Salim’s temporarily elevated position in these two local status roles – Salim’s reflexive and context-dependent status of membership in the group – might translate into more permanently raised social status roles – more lasting recognition and status in the group (Kiesling, 2001).

2) Enforcing Salim’s positioning. Immediately following Malik’s recognition of Salim’s in-game achievements, Michael and Jason undertook a campaign to re-enforce Salim’s status as a newer, peripheral member of the group through both in-game attacks and social positioning work outside the game. As Jason and Michael attempted to re-stabilize Salim’s peripheral status in the group, their speech acts and choices in language evidenced their underlying goal. As they gloated to Salim that they were about to attack him, Michael and Jason fell into patterns of discourse that were simultaneously similar and dissimilar from those they had used earlier. As he urged Jason to attack Salim, Michael again adopted an imperative discursive frame, again asserting his authority, confidence and certainty within the social group. Through this positioning work, Michael’s implicit message was that Salim’s identity was that of a social outsider, and a novice to game play.

Interaction 2: Salim and membership

Salim became very involved in the CivWorld program in the four and a half months between Interaction 1 and Interaction 2. Accompanied by his brother, he attended the program every single week and became progressively better and better at playing the game. During the five program weekly sessions after Interaction 1, he chose to play the Greek civilization that he had played during Interaction 1 each time. Fascinated by Greece, he began bringing to the program children’s history books that he checked out from his school library, which kept in his lap or on the desk beside him while playing. He talked regularly to Lawrence, an adult facilitator in the program, about Greece in antiquity. He became particularly interested in hoplites, the citizen-soldiers of ancient Greece, because they were represented in the game as a defensive “special unit” for Greece. He reported that at home, he and Malik took turns watching each other play the game, and Salim often talked to his brother while Malik was making game mods. Salim, in short, became a very engaged and interested participant in the CivWorld club, and took that interest into other parts of his life.

The data in Interaction 1 comes from a program session that ran four and a half months after the data in Interaction 2. In this interaction, Salim was waiting with Darius, Malik and Jason to again start playing a multiplayer Civilization III game. Adult facilitators Lawrence, Karl and Brian worked to overcome technical problems to load a saved game session from the previous week that the young participants wanted to play. During a past multiplayer game, Salim, playing as Rome, had suddenly taken the lead. Salim, followed by Malik, walked toward the corner where Darius and Jason were sitting:

24/ (0:16:50.0) M: Salim! (puts hand on Salim's shoulder)
25/ (0:16:52.1) M: Rome is gonna die today.
26/ (0:16:54.1) S: No all you [guys are gonna die
27/ (0:16:54.8) J: Yes it is.]
28/ (0:16:55.4) M: Rome is gonna die today.
29/ (0:16:57.0) S: [No:::o?
30/ (0:16:57.3) D: I'll be all off us put [together versus you, and you're gonna win?
31/ (0:16:58.5) M: Rome- (-) Rome- (-)] (pats Salim to get attention)
Again in this interaction, Salim became the target of game-related threats and taunts from his brother’s circle of friends, but this time it was instigated by Malik himself. Salim, however, seemed to become engaged by the taunt in line 26, treating it as a social game itself. As such, he returned the taunt and declared that it was his three interlocutors that were going to lose in the game. Jason and Darius join Malik in taunting Salim, with all three predicting his doom. Darius, however, instead of declaring by fiat that Salim was going to be beaten, he justified his prediction and challenged Salim to provide a rational. In joining the chorus predicting Salim’s doom in line 30, he interrogated Salim’s self-confidence by asking him how Salim was going to defeat his three opponents at the same time. Still, Salim did not seem to mind one bit, and seemed very engaged commanding a war against Brian alongside his brother. Jason, who was presumably allied against Malik, seemed to follow a different trajectory through the game even though he was nominally part of the Malik and Salim’s alliance. While he provided material support to Malik and Salim in-game, and verbal support out-of-game, Jason never directly attacked Brian – it was a rare occurrence that Jason did not participate in a war. Salim and Malik’s war against Brian devolved into a statemate, but Salim seemed to be enjoying himself thoroughly the entire time as he and Malik sought to find a way to use the numerical superiority of their armies to overcome Brian’s defenses.

Analysis 2:
In this social warm-up to the actual multiplayer game that was characterized by braggadocio and smack talk, Salim performed a very different version of himself than he had in prior interactions that speaks to the changes in identification toward the social space surrounding CivWorld that he had undergone in the previous four months. Salim had become much more active and willing to try to define his own positioning in an interaction with older youth, even as they contested just as much as they had in the previous interaction.

Throughout the interaction above, Salim contested the way in which Jason, Malik and Darius tried to negative position him in conversation. While Salim showed a growing competency in his ability to reposition himself, Malik, Darius and Jason demonstrated that he was far from mastery beginning in line 24. As they anticipated playing the game, Malik let Salim know that his civilization was going to perish and implied that Malik would be responsible at least in part. While Salim protested in earnest, Jason added his voice in agreement to Malik’s in line 27, declaring that Salim’s civilization would indeed “die.” In these first lines, both Malik and Jason adopted a declarative frame toward Salim – his civilization was inevitably going to die. Salim, in turn, responded in the declarative frame by telling them that it would not in lines 26 and 29. Darius then shifted the interaction into an explanatory frame in line 30 by asking Salim to justify why he thought he could defeat three opponents at once. Perhaps because he thought the older youth were ganging up on Salim unfairly, or perhaps just because he was curious, Karl, an adult facilitator, seized upon this explanatory frame to ask who was currently winning the game in terms of points in line 32. When both Salim and Malik answered that Salim was winning, Salim was provided with an argument to respond to Darius’ rhetorical question – he was winning already, so why could not he maintain that advantage.

Salim’s ways of identifying, and negotiating how others identified him, himself socially in the space had changed significantly over the course of a four and a half month period. As the data presented in Interaction 2 demonstrates, Salim had developed some basic competencies in new ways of interacting and positioning himself as well as new forms of talk and identification through language. These new identity-related competencies were linked to larger ongoing project of identification with and identity formation in the CivWorld social space. Salim, in other words, was developing the competencies in order to be considered a full member of the highly social community of practice in the CivWorld program.

Epilogue: Salim’s trajectory of participation
Over the next six months, Salim continued his trajectory toward more full participation in the CivWorld community. Over this time, he became more and more proficient at the social and game-based activities that were valued in the Discourse of the community. Salim became much more knowledgeable and proficient in all aspects of the game, but he became recognized for his ability to achieve a high score in the game without resorting to war or conquest. Specifically, Salim became noted for his ability to achieve “cultural” and “wonder”-based victories in which he advanced his civilization through the production of culture and cultural institutions, or through the construction of “World Wonders” for which the game accords point based on the civilization’s resulting increase in stature. During this time, Salim, following his brother’s lead, began designing rudimentary game scenarios and modifications. Salim was notable for designing game scenarios that
did not revolve around conflict, but rather around diplomatic and cultural acumen. Both Salim and his brother continued their practice of taking turns at home playing the game and spectating as the other played. They began taking part in ad hoc multiplayer games organized on the Internet, and took pride in boasting of their (mostly Malik’s) online victories during the weekly meetings at the CivWorld program.

Discussion
As he moved from peripheral to full participation, Salim developed intermediate identities as a competent (and then expert) Civilization game player and a recognized member of the club’s social community. These intermediate identities were in constant dialogue with both the emergent and reflexive identity positioning work (Davies & Harre, 1990) that occurred at the local level of interaction and the longitudinal identification projects (as a brother, as a masculine pre-adolescent, as a student) that Salim carried with him.

Identity at the local level was negotiated between Salim’s positioning at different moments in game play and his concomitant social positioning in the group. At the same time, the social positioning work, in particular, was heavily influenced by long-term identification projects. The form that Salim’s positioning work took changed quite a bit depending upon the long-term positioning project that was foregrounded by the situated and reflexive circumstances of interaction. When Salim was foregrounding his nascent long-term identity as a masculine adolescent, the social work he performed to position himself was far more aggressive, just as the way Jason, Michael, Malik and others tried to position him was far more forceful when they were foregrounding that particular project. Similarly, when Salim placed his “identity-as-a-brother” long-term project at the forefront of his identity performance in Interactions 1 and 2, the way he positioned himself was again very distinct. When acting first as a brother, Salim oriented his actions around his perception of his brother’s needs – trying to help him join the multiplayer game in Interaction 1, and trying to prove his acumen to him in Interaction 2. In those moments, his self-positioning work became supportive and/or inquisitive, instead of the positioning continuum between quiet and aggressive that he inhabited at other times. As such, although the intermediate level was the primary level of identification processes in dialogue with the local positioning work, larger and longitudinal processes were influential as well.

To be sure, he underwent powerful identity transformations that were immediately related to the relevant learning game and game-based learning community as he transformed from a user to a designer, from a novice to an expert, and from an outside to a “old-time” participant. However, these more immediate paths of identity formations were inextricably and dialogically connected to both long-term identity trajectories that were not an immediate result of the game and influential short-term identity positioning work that occurred on a local timescale. These different identity processes and trajectories intersected in the nexus of identification that was the CivWorld program. For Salim, they were very tightly bound up in a mesh of identification that resulted in the change in his CivWorld-related identities - his dispositions, capacities and evaluative stances related to his social membership and expertise in the gaming club. There was no one identity that was transferred, unfettered, to Salim by his participation in the program, but rather a number of identities that were enmeshed in Salim’s long-term trajectories of identification.

Conclusion
The central issue in question is the temporal, spatial and social scale at which learning scientists should examine processes of socialization and identification. Researchers favoring a broad, long-term scale argue that research focused only on the short-term, situated contexts fails to relate what happens in those contexts back to historical trajectories and overarching social structures – which in their view is what matters. Conversely, scholars favoring a focus on short-term and situated social contexts argue that a focus on large scales deprive individuals of agency and fail to understand the nuances and fluidity in everyday social life.

As an alternative to this bifurcation of both the short-term from the long-term, and enactment from formation, a practical science of identity and learning must not, in an effort to describe the relationship between enactment and formation, fall into the same totalizing trap underlying the bifurcation in the first place. It must eschew the implicit claim that its methods and analysis can describe and represent the totality of a social person, community or ecology, and instead explicitly acknowledge that its methods provide a lens to investigate that relationship that magnifies some parts and occludes others. As Bourdieu (1977) advised, it should embrace the limits of its objective exploration as a means of making clear what it is investigating.
References