
Title	Pervading binaries, disrupting boundaries: Investigating youth's negotiation of the dialectical interplay of offline and online identities
Authors	Azilawati JAMALUDIN, Yam San CHEE and Ek Ming TAN
Source	<i>17th International Conference on Computers in Education (ICCE 2009), Hong Kong, 30 November to 4 December 2009</i>
Published by	Asia-Pacific Society for Computers in Education

This document may be used for private study or research purpose only. This document or any part of it may not be duplicated and/or distributed without permission of the copyright owner.

The Singapore Copyright Act applies to the use of this document.

Citation: Jamaludin, A., Chee, Y. S., & Tan, E. M. (2009). Pervading binaries, disrupting boundaries: Investigating youth's negotiation of the dialectical interplay of offline and online identities. In S. C. Kong, H. Ogata, H. C. Arnseth, C. K. K. Chan, T. Hirashima, F. Klett, J. H. M. Lee, C. C. Liu, C. K. Looi, M. Milrad, A. Mitrovic, K. Nakabayashi, S. L. Wong & S. J. H. Yang (Eds.), *Proceedings of the 17th International Conference on Computers in Education* (pp. 667-674). Hong Kong: Asia-Pacific Society for Computers in Education.

Copyright 2009 Asia-Pacific Society for Computers in Education

Archived with permission from the copyright holder.

Pervading binaries, disrupting boundaries: Investigating youth's negotiation of the dialectical interplay of offline and online identities

Azilawati JAMALUDIN^a, Yam San CHEE^a, Ek Ming TAN^a
^a*Learning Sciences Lab, National Institute of Education, Singapore*
azilawati.j@nie.edu.sg

Abstract: This paper investigates the digital migration of Singapore youth to virtual worlds so as to better understand the dialectical interplay between living in the real and the digitally-mediated worlds on how youth construct their identity and sense of self, negotiate meaning, and make sense of their social experiences online. Situating this study within a context of the immensely popular MMORPG, World of Warcraft (WoW), this paper proposes the notion of a *performing cyborg* as a theoretical lens of looking at the interplay between the everyday, situated lives of digital youth gamers and their activities in WoW. The findings suggest a recurrent theme that challenges ascribed dichotomies between youth's presence in the real world and virtual world in terms of their identities in play, their sense of embodiment, and their orientation toward work, play, and the spirit of *communitas* within WoW. We posit that exploration of such a phenomenon that indicates a more intimately enmeshed and dialectically coupled experience of youths' online and offline worlds provides a fundamental framework for educators to better understand the impact of youths' exodus to the virtual worlds and its implications for 21st century pedagogy. To this end, this work will strengthen current efforts in augmenting an understanding of the broader learning ecologies within which youth learning activities are situated, illuminating the interplay between youth living in the real and the digitally-mediated virtual world.

Keywords: youth, virtual worlds, online worlds, identity

Introduction

The landscape of interaction in which youth engage the world and each other has rapidly changed over the last decade. In an "information age" [1] characterized by *digital migrations* [2] and an *exodus to the virtual world* [3], today's youth are not only fluent and playful with digital technologies but are also developing alternative, sophisticated, reflective literacies while at the same time establishing new cultural norms and social practices [4]. Learning, in this context, is characterized by authorship, reflexivity, and personal agency, which is in contrast to formal educational settings where youth are far more often asked to internalize and accept information rather than create and challenge ways of knowing. Differences in experiences of personal agency, pleasure, and efficacy, inherent to within and without educational institutional contexts, have the unfortunate effect of rendering school-based learning unengaging, or even worse, insignificant and inapplicable [5]. This presents a challenge for educational institutions in that, they will require new institutional practices and ways of engaging digitally-savvy youth in learning activities that will not only be seen as relevant to their out-of-school practices but will also better serve them as digital 21st century citizens beyond their schooling years.

In Singapore, youth between the ages of 15 and 24 form the largest group of Internet users within the country. Over 82 percent of youth use the Internet for communication and content creation purposes (instant messaging, social networking, blogging, uploading Youtube videos, playing video

games) [6]. For this group of users, life becomes increasingly digitally mediated where many new opportunities are presented for them to make, share, and create new forms of culture. This is evidenced by the rapid growth of self-organizing and self-educating online youth communities (e.g. Second Life's RidgeCats (comprising National University of Singapore students) and World of Warcraft's Rebirth Guild (comprising Singaporean youth from all walks of life) that are constantly evolving through the interaction between and efforts of its constituent members. The increasingly pervasive influence of digital media culture on youth today spawns a new phenomenon of youth's "life online" as real life gets increasingly displaced by virtual life/lives. In this study, we investigate this phenomenon of youth *living online* and how they negotiate the dialectics of offline and online worlds, in relation to their process of *becoming* [7], identity, and self construction processes as their offline and online lives get increasingly entangled and yet more blended.

Situating our work within the context of the extremely popular immersive multiplayer game space, World of Warcraft (WoW), our work is aimed at illuminating the interplay between living in the real and the digitally-mediated virtual world on the way youth construct their own identity, including their sense of embodiment, negotiate meaning, and make sense of their social experiences online through performance moves within WoW and performative speech acts rooted in narrative and discourse within and outside WoW. Given the currency of the phenomenon of youth *living online*, it is intended that the implications of our work will strengthen current efforts in augmenting an understanding of the broader learning ecologies within which youth's learning activities are situated, providing rich point of references for 21st century pedagogy that will be personally relevant, meaningful, and efficacious for learners.

1. Immersive Game Space: World of Warcraft

World of Warcraft takes the form of an extravagantly re-imagined version of J.R.R. Tolkien's Middle-earth, akin to a medieval *Matrix*. The game's narrative and structure revolve around Western European fantasy tradition that parallels the *dungeons and dragons* game genre of the 70s. There are two main factions within the game – horde and alliance. Each faction has four races; the alliance is comprised of dwarves, gnomes, humans, and night elves while the horde consists of orcs, tauren, trolls, and undead. Each race has a unique set of characteristics and its own list of available class choices. There are nine classes (druid, hunter, mage, paladin, priest, rogue, shaman, warrior, and warlock) in the game, and each has its own unique set of abilities and powers. Each player controls an avatar with a chosen race and class within a game-world that they can affect by interacting with it. The game rewards success with equipment and experience, which allow players to improve their skills and power [8]. In addition, players may opt to take part in battles, or more commonly known as 'raids', with and against other players, including both duels and fights against characters allied with an enemy faction. Players usually form guilds and raid communities to collaborate and fight against the enemies. In this regard, 'inhabitants' of WoW do not simply interact with the game environment; instead the vibrancy of these games lies in the interactions they necessitate between players.

Within the WoW gaming system, realism and identity take on a deep significance. The virtual identity of a user (look, gender, and race as represented by their choice of avatar, name, skills, and characteristics, the way that they interact and speak, the language they use etc.) are not limited by biological or social forces as they are in the offline world but are subject to the player's choice. Gamers are able to explore different subject positions and experience identities that are different from their own real world identity, afforded by the gaming environment and facilitated by the creation of virtual characters [9]. These very aspects of WoW that allow for identity exploration and construction, embodied agency, and active engagement represent a potentially radical framework that may exist to challenge ascribed dichotomies (e.g. materiality vs. virtuality, male vs. female, human vs. technology) within the interplay of everyday, situated lives of digital youth gamers and their performed actions in WoW. In this paper, we draw on Haraway's famous image of the metaphoric cyborg as a lens for challenging the aforementioned binaries, seeking to explore the power of this construct in addressing the theoretic notions of youth's negotiation of the dialectics of offline and online identities.

2. Cyborgian performance in the game space

2.1 Metaphoric cyborg

Donna Haraway's influential Cyborg Manifesto represents a postmodernist account, eschewing clean-cut

boundaries which include, among others, that of: mind/body, culture/nature, male/female, civilized/primitive, reality/appearance, whole/part, agent/resource, maker/made, active/passive, right/wrong, truth/illusion [10]. Haraway is careful to highlight, though, that her conceptualization of the cyborg is at once an ironic fiction and a way of thinking about actually existing phenomena. As Hayles [11] put it in her seminal book titled *How We Became Posthuman*:

“[Haraway’s] cyborgs are simultaneously entities and metaphors, living beings and narrative constructions. The conjunction of technology and discourse is crucial. Were the cyborg only a product of discourse, it could perhaps be relegated to science fiction, of interest to SF aficionados but not of vital concern to the culture. Were it only a technological practice, it could be confined to such technical fields as bionics, medical prostheses, and virtual reality. Manifesting itself as both technological object and discursive formation, it partakes of the power of the imagination as well as the actuality of technology” (p. 114). According to Haraway, this articulation of the actual and the metaphorical is critical but is often obscured in contemporary research [12].

In addition to the fictional cyborgs of science fiction cinema and literature, Hayles distinguishes between ‘actual cyborgs’ (for example people fitted with prosthetic limbs) and ‘metaphoric cyborgs’ (for example the adolescent cyber game enthusiast). It is this latter figuration, offering “new metaphors for subjectivity” and “suggesting a way out of the maze of dualisms” (p. 223), that we pursue as our underlying construct in addressing theoretic notions of youth’s negotiation of the dialectics of offline and online identities.

2.2 Game player as cyborg

Haraway [10] argues for the idea that the technological pervasiveness of our life and world today (the “cyborg world”) offers an opportunity to form unities based on affinities rather than identity: *“a cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints”* (p. 154).

Drawing from these partial, fractured identities that Haraway [10] speaks of, the youth gamer, as simultaneously avatar acting in the WoW game space, player sitting by his/her computer, and perhaps being part of a (both online and offline) community, forming intimate connections with the virtual world, can be characterized as a cyborg [13]. This is to say that the players’ use of representational avatars for performed actions, which include not only performance moves or enactment within WoW but also performative speech acts rooted in narrative and discourse within and outside WoW, corresponds to the cyborg’s “disassembled and reassembled, postmodern collective and personal self” (p. 163) because the player-avatar is an example of holding multiple (and therefore partial) identities at once in dynamically changing contexts (both offline and online) influenced by social practices [13]. In this sense, the game player as cyborg is situated within a performative paradigm where a multiplicitous self is constructed in not only the performance of everyday life, where everyone at some time is conscious of ‘playing a role socially’, but also within the dramatic instantiation of narratives and the role-playing structures of WoW.

According to Bowman [14], if the world is itself an elaborate game, and each of us struggle throughout our lives to learn the rules and find ways to succeed, participating in online games can be viewed as a microcosm of that process. In this regard, by allowing youth the freedom to embody whichever characters they desire and placing them in bizarre, often drastic situations within the contextual space of WoW, they are able to reconstruct the world through lived practices that engage, subvert, and transform the space to make it their own. These lived practices that bear upon youth’s process of *becoming* as they negotiate the dialectical interplay of offline and online identities constitute the trajectory of our research investigations.

3. Methodology

This paper draws on an ongoing ethnography of WoW in which data were gathered from participant-observation sessions¹, interview responses, in-game chat transcripts, web-based messaging

¹ The period of ethnography commenced in July 08 to Dec 09, for a duration of 1.5 years. The researcher logged on for four hours each day. As a participant-observer, the researcher focused on experiencing the game world first hand. This experience was integral to the study because it directly impacted on the researcher’s ability to understand the phenomenological game experience of a relatively new WoW player. The researcher declared a research identity whilst at other times operated as co-participants or participant-observers as data were collected. We recognize that there is a long history of covert or semi-covert research in ethnography and that non-disclosure of research identity in computer-mediated-communication research remains an unresolved issue [21].

transcripts, and players' experiences and narratives in the form of blog or online forum postings. In-game interviews were conducted either within the public or private 'chat' mechanism of the game. Semi-structured offline interviews were also conducted to further corroborate the online data.

Various literature [15, 16, 17] were reviewed to highlight concerns that may arise from the anthropological stance of our study. According to Boellstorff [18], the use of anthropological methods among game researchers is well known because of the notion of play (in this context, game play in WoW) as a 'master metaphor' in relating to a range of social and cultural dynamics. Scholars from this field approve the nuanced insights that ethnographic methods uncover, especially within the context of many new and challenging research settings within the "information age." Christine Hine, author of two critical references in the domain of virtual ethnography [16, 19], expounds that researchers have contextualized basis for conducting online ethnographic work. The first stems from the notion of the Internet as "a place, cyberspace, where culture is formed and reformed," while the second "sees the Internet as a product of culture" (p. 9). Similarly, Wilson and Peterson [20] posit that online communities are unique social spaces that need to be studied as true communities of their own right. These issues reflect wider questions of whether online spaces are in any sense 'real': indeed, whether they are 'spaces' at all. We posit that online spaces such as WoW offer a context for agency and participatory action that constitutes one's sense of *being* in the world [21]. In this regard, any analytic methodological tension between offline vis-à-vis online and real vis-à-vis virtual should be cast aside. As Hine [19] reiterates, if data collection is rigorous, then the process and validity of ethnography in virtual space should be recognized as any other ethnography.

3.1 Description of informants

Our first informant (Youth A) is male, in his mid-twenties, and working in the game industry as a game analyst. He is also a part-time degree student on a distance study program. He is an early adopter of many online games, having started playing from the age of ten. He has even traveled to Japan to meet top game players. He was recruited as a member of a very elite American guild. He has also started his own local guild where there are at least thirty players under his purview.

Our second informant (Youth B) is a male Computer Engineering student at a local university, in his mid-twenties, who started playing WoW when it was first released in 2004. He has an elder sibling who is also a game enthusiast. He believes that his sibling's gaming habits may have had a significant influence on him. Originally none of his offline friends played the game, but he says he has "made numerous friends online." He spends an average of six hours daily playing WoW. He shared that his objective, after he graduates from college, would be to find a job that will allow him to continue his gaming activities.

The third informant (Youth C) is a male university student, in his early twenties. He is a dedicated WoW player, possessing two top-level avatars. He spends an average of eight hours daily playing WoW. When asked what he liked about WoW he stated, "The WoW World is such a huge space where I can interact with so many people from all over the world and we talk about our same passion for the game, which others outside of WoW may not understand, which I found was pretty amazing."

Given the in-depth qualitative nature of our study, we focused on collecting 'thick descriptions' [22] from youth's specific cases of "life online", as opposed to distilling results from a large sample size for inferential statistics purposes. Identified through chain sampling, our informants represent the average age and gender² of WoW players [23].

4. Findings and discussion

4.1 Identities in play

The notion of 'cyborgs' in the metaphorical form, developing intimate connections with virtual worlds, in a structurally coupled relation of player and game environment brings to fore a focus on the construction and representation of identity in online games. In WoW, avatars constitute the intermediary point where game and player come together through a radical form of identification, in the

² In the Daedalus Project, Yee (2005) reported that the bulk of WoW players are male (84%) with average age of 28.3 (SD=8.4). On average, players spend 22.7 (SD = 14.1) hours per week playing WoW, with no gender differences reported in hours played per week.

sense that not only does the player identify (at least in a functional way) with a character (or several characters) acting in the game, the player actually controls and creates this character, but within the conditions set up by the game [13]. In other words, “avatars are crucial in producing a sense of presence, of ‘worldness’” [17].

In her book *Play Between Worlds – Exploring Online Game Culture* (2006), an ethnographical and sociological study of online gaming (particularly the MMORPG EverQuest launched in 1999), Taylor [17] points out that avatars not only represent people in online games, they “influence and propel the formation of identity and relationships” (p. 96), and they “are central to both immersion and the construction of community in virtual spaces” (p. 110). According to Taylor [17], “. . . when we play we negotiate a duality of presence (between the offline and the game world), and as we gain embodied competency over our avatars, we come to experience a satisfaction reminiscent of what is felt when we master a sport or embodied activities in corporeal space” (p. 109). This notion of “duality of presence” resonated with the findings from our study. When asked to describe their avatars, our informants expressed deep engagement in the customization of images and symbols through which to articulate their own identity, tastes, and agency. Their avatar often becomes the means through which they express aspects of their identity to other members of the community.

“I’m actually a female gnome with pink hair...yeah I chose it because I thought it looked so cute...it’s quite interesting because usually people expect female gnomes to be weak right, but then I’m a guild leader and then I have my own mount and amour so I kind of like it when I shock them” (Youth A)

“I’m an elf...pointed ears...and green eyes...long hair...elves have long hair...you know some people think I’m female” (Youth B)

It is interesting to note that although our informants are males, their avatars may not necessarily project normative male representations. The fantasy constructions of identity in WoW offer an exploration of alternative subjectivities in which informants explore the notion that appearing feminine doesn’t necessarily equate a stereotypical “victim needing rescuing”. In doing so, these youths are in fact exploring the countering of hegemonic representations of femininity within games. In the case of Youth A, by foregrounding the feminineness of his avatar (pink and long hair, red lips) and yet performing actions that are not normative of females, he deliberately offers compelling representations of cyborg subjectivity. His online persona or avatar provides the audience with representations of performed subjectivities where the boundaries of what is acceptable are potentially different to those experienced in the offline setting. Clearly, performative spaces such as WoW enable the living out (however temporarily) of imaginative heterotopian identities or playful representations of self which may be limited and constrained, but in very different ways to the offline context they regularly inhabit [17]. These breakdowns of dichotomies, theoretically grounded by Donna Haraway’s famous image of the cyborg, represent the recurrent theme in our findings.

4.2 Embodied ‘cyborgian’ pleasures

We observed that informants use terms such as ‘adrenalin rush’, ‘challenging’, ‘accomplishment’, ‘committed’, and ‘tired’ when describing their experience in WoW, in such a way as to suggest that the nature of game play is experienced as a spectrum of embodied consciousness. They articulated a strong sense of pleasure in displaying their competence and skill when playing online, and they manifested evocation of embodied pleasures in mastering the game. The sense of agency the players experienced is amplified in terms of latitude of movement within the game space and sense of empowerment through players’ skill in mastering the technology. For example, the following interview excerpt indicates the intensifying nature of their pleasure:

“...It’s the hordes we seek...of the raid group...I like the challenging aspect...yeah... that’s why I like... working together to bring down their boss ...its not easy managing 25 people in a raid and trying to tell them to do this, do that and some people... you know some times some people like they don’t ... really pay attention and tend to screw things up in the fights ...” (Youth B)

Apart from experiencing WoW affectively and cognitively, informants also articulated the visceral and bodily effects. They described physical discomfort and even pain when engaging in WoW activities. Further, when describing their online interactions, the informants referred to the other players within the game space as “people,” not avatars. The following is an interesting portion of a conversation with one of our informants, when asked on the reduction of his time spent in WoW:

“...I was already up there...so there was no progression for me...spent so many hours in raids ... I was basically stagnating...so there was no sense of accomplishment. When I stopped, I was free for so many days and then I started to reflect on the things that happened e.g. friends, enemies. And I want to get better and I’m going to Japan to see the best players in the world. As long as I get to improve in terms of skills, to be socialite on the server, and improve in terms of how I view life. Now I’m also interested to write a book on social effects of gaming...” (Youth A)

We observed that it was his in-game leveling inertia, causing his engrossment in the game to abate, that caused Youth A to reduce his time spent online. It was clearly an arduous resolution for the player to come to terms with, and clearly there were deep tensions between his offline lives and online activities that could not be kept separate. Indeed, during his “free time”, he engaged in personal reflection about his actions within the game world and felt compelled to strategize to achieve “socialite status on the (WoW) server and in his overall perspective of life.” We observed that these are *not* the sentiments of youths who have disassociated their offline lives from their online ones. They are the sentiments of youths who, like many, struggle to make sense of the myriad tensions that resonate within vague and amorphously overlapping boundaries of their life-worlds [24].

4.3 *Play, work, and the spirit of communitas*

Our research also suggests that the boundaries between *play* and *work* in virtual worlds are more blurred and superfluous than dichotomous. If virtual worlds have been seen as a space predominantly for casual play and social networking, our informants have shown otherwise through the strong commitments they placed on the tasks, errands, and obligations they ascribed to within their guild communities. They did not view their participation in WoW as merely game play but rather, they talked about their online experiences in terms of “productivity, projecting goals, and making things happen together with others.” The findings suggest that for these youths, the boundaries between *play* and *work* in WoW are less dichotomous than that in offline spaces. For instance, Youth A, who is also a guild-leader gave an account of how he led and guided his guild members to strategize and collaborate for quest completion.

“...I never wanted to miss any raids even if I am tired because that would let my guild mates down...running the guild I was being quite a Nazi leader very authoritative, so some of the players I handled they blew up and they said bad things about me but I focused on making my guild the top. When running the local guild, progression was pretty fast for us so I prevented my team from posting too much on the forum as I didn’t want to be seen as showing off and attracting too much attention. I wanted them to focus on achieving. In one of the games I played previously there was this Japanese guild that didn’t show off so I learnt from that and saw it as a virtue and instilled it forcefully into the guild that I was running” (Youth A)

Indeed Youth A’s guild rose to become one of the top local guilds in Singapore, and he is recognized as a top player among the local games community. What is emerging as interesting are the ways in which his performance parallels that which is valued by successful organizations in real-life and enacts an attitude that is more akin to work than to casual play. His responses reveal how virtual spaces may be viewed as a productive and engaging space in which there are everyday tasks, errands, and obligations to be done that require emotional and bodily commitments. As he reported the “adrenalin rush” and the feelings of achievement and fulfillment he experienced as his guild “collaborated and worked together” within the world of Azeroth by strategically conquering quests, accomplishing goals, and rising to the top of the Guild League, it is a reflection of how, just like the world of flesh-and-blood engages the self with the *other*, so do these youths engage with *others* [24] and enact their work-based performance within WoW and its ensembled realities.

A turn to performance theory enables us to understand this relationship between play, work, and performance, understanding how ‘communities of players’ in general position themselves as ‘*other*’ to ideas of work-based communities. Turner [25] offers the notion of *communitas* where it:

does not represent the erasure of structural norms from the consciousness of those participating in it; rather its own style, in a given community, might be said to depend upon the ways in which it symbolizes the abrogation, negation or inversion of the normative structures in which its participants are quotidianly involved (p. 58).

This spirit of *communitas*, of deep, intense community spirit coupled with the feeling of immense social equality, solidarity, and togetherness is exemplified in the increasingly enmeshed interplay between the everyday situated lives of our informants and their social interaction activities in the virtual spaces:

“we raided every night except Tuesdays and Saturdays, where we meet up... we mostly knew each other online, and then we started meeting up weekly, every week meet for coffee so we don't become nerds...I mean I'm more comfortable with hanging out with these people...” (Youth A)

“My role as the chief healer...If I dropped from the raid, it would mean that the group would be almost wiped out ...basically.. I have to try to keep the party alive., I have to help the others, we have to kill the boss to bring them[the enemies] down ... I have to ensure I am protecting my people and bringing them up...yeah” (Youth B)

“...when I have to attend a raid my attendance is 100%. I adjusted my time, my sleep in a way that I can attend the raid. If I do not attend, I will compromise the other 39 people that are attending the raid. It's not fair for my team; I have to be very committed” (Youth C)

These are evidences of deep social involvements between youths' offline realities (work, school, sleep) and their online lives. For these informants, why would they feel such societal pressure to be dependable and not “compromise” the other guild members and their raid activities? Why do they feel responsible that their group “would be almost wiped out” if they dropped from the raid? Why does it ultimately matter for youth to “keep their party alive”? These issues *matter* because for these youths, their experiences are *not* simply arbitrary activities engaged in realms of fantasy and fabrication. WoW, to these youths, represent a deeply meaningful and experiential space that entails immense investments of energy, emotion, and time coupled with performative acts within a social milieu. The sentiments articulated by these youths are essentially that of *real* community members engaging in *real* community activities within the spirit of *communitas*, in ways that are intricately entangled with offline situations. Such indications instantiate ways in which real and online community and identity may be closely coupled and inter-projected one upon the other, eschewing pervasive binaries, disrupting boundaries between their online and offline dialectics.

5. Implications and conclusion

Rather than just being two separate realms delineated by technology, our exploration of youth's *digital migrations* and *exodus to virtual worlds* has indicated a more intimately enmeshed and dialectically coupled experience of youths' online and offline worlds. We have shown in this paper that youth's participation in an online social space such as WoW is a deeply embedded practice that is intimately linked to youth's identity construction processes, sense of self, and their negotiation of meaning and sense making processes of their social experiences. Clearly, there is no strong case to be made that any pervasive dichotomy between youths' offline and online lives exist. What players do when engaging in their online activities are largely perceived as *real* engagements with *real* fellow gamers involved in *real* forms of community, with no clear distinctions made between their offline and online *realities*. To these players, life in WoW is associated with the notion of *communitas* where their performances exist as an enunciation of their partial, fractured identities that Haraway speaks of, in a changing context influenced by social and cultural practices.

In this regard, our research has sought to pave the way for further understanding the ways online activities interplay with youths' offline identities and their sense of self. Through analyzing the social and material practices that are inextricably linked within youth's offline and online worlds, educators may be better informed in responding to the demands of youth's increasingly sophisticated literacies, coupled with new cultural norms and social practices within their landscape of interaction. A more robust understanding of educationally-valued meaning making and learning processes arising through youth's “life online” would only serve to strengthen the bridge between media literacy practices outside of school and those within them.

To this end, this paper is to be seen as an attempt at foregrounding a deeper-reaching theoretical perspective on how youth construct their identity and sense of self, negotiate meaning, and make sense of their social and learning experiences online through a characterization of their *being* and *becoming* trajectories. Against this new landscape, the research outlined herein can only better prepare us for the radical changes to come, whether schools respond in efficacious ways or ultimately render themselves obsolete [26].

Acknowledgements

The work reported in this paper is funded by a Learning Sciences Lab research grant, R8019.735.LI06. We would like to thank all youths who participated in this research.

References

- [1] Castells, M. (2004). *The power of identity*. Malden, MA: Blackwell Publishing.
- [2] Meadows, M. S. (2008). *I, avatar: The culture and consequences of having a Second Life*. Peachpit: New Riders.
- [3] Castronova, E. (2007). *Exodus to the virtual world: How online fun is changing reality*. New York: Palgrave Macmillan.
- [4] Hsi, S. (2006). *Digital-mediated experience of next generation youth: Recommendations for future investment*. Commissioned paper for the Macarthur Foundation. Retrieved January 23, 2009 from <http://www.exploratorium.edu/research/digitalkids/about.html>
- [5] Prensky, M. (2005). Engage me or enrage me. What today's learners demand. *Educause Review*, 40 (5), 60-65.
- [6] Infocomm Development Authority of Singapore (IDA). (2008). *Annual survey on infocomm usage in households and by individuals for 2007*. Retrieved April 27, 2009 from http://www.ida.gov.sg/doc/Publications/Publications_Level2/20061205092557/ASInfocommUsageHseholds07.pdf
- [7] Semetsky, I. (2006). *Deleuze, education, and becoming*. Rotterdam: Sense Publishers.
- [8] Blizzard Entertainment (2009). *World of Warcraft Review*. Retrieved January 12, 2009 from www.worldofwarcraft.com
- [9] Gee, J. P. (2003). *What videogames have to teach us about learning and literacy*. New York: Palgrave Macmillan.
- [10] Haraway, D. (1991). A cyborg manifesto: Science, technology, and socialist feminism in the late twentieth century. In D. Haraway (Ed.) *Simians, cyborgs, and women: The reinvention of nature* (pp. 149-181). London: Free Association Books.
- [11] Hayles, N. K. (1999). *How we became posthuman*. Chicago: Chicago University Press.
- [12] Giddings, S. (2006). *Walkthrough: Videogames and technocultural form*. Unpublished PhD dissertation, University of the West of England, Bristol.
- [13] Albrechtslund, A. B. (2007). *Gender and the player cyborg: Ideological representation and construction in online games*. Paper presented at the Internet Research 8.0: Let's play Conference. Vancouver, Canada.
- [14] Bowman, S. L. (2007). The psychological power of the role-playing experience. *Journal of Interactive Drama*, 2(1), 1-15.
- [15] Markham, A. (1998). *Life online: Researching real experiences in virtual space*. Walnut Creek, CA: Alta Mira Press.
- [16] Hine, C. (2005) *Virtual methods: Issues in social research on the internet*. Oxford: Berg.
- [17] Taylor, T. L. (2006). *Play between worlds: Exploring online game culture*. Cambridge, MA: MIT Press.
- [18] Boellstorff, T. (2006). A ludicrous discipline? Ethnography and game studies. *Games and Culture*, 1(1), 29-35.
- [19] Hine, C. (2000). *Virtual ethnography*. London: Sage.
- [20] Wilson, S. M. and Peterson, L. C. (2002). The anthropology of online communities. *Annual Review of Anthropology*, 31(1), 449-467.
- [21] Hillis, K. (1999). *Digital sensations: Space, identity, and embodiment in virtual reality*. St Paul, MN: University of Minnesota Press.
- [22] Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.
- [23] Yee, N. (2005). *WoW basic demographics*. Retrieved April 12, 2009 from <http://www.nickvee.com/daedalus/archives/001365.php>
- [24] Chee, F., Vieta, M., and Smith, R. (2006). Online gaming and the interactional self: Identity interplay in situated practice. In J. P. Williams, S. Q. Hendricks, and W. K. Winkler (Eds.). *Gaming as culture: Essays on reality, identity, and experience in fantasy games* (pp. 154-174). Jefferson, NC: McFarland Publishing.
- [25] Turner, V. (1982). *From ritual to theatre: The human seriousness of play*. New York: Performing Arts Journal Publications.
- [26] Steinkuehler, C. (2008). Massively multiplayer online games as an educational technology: An outline for research. *Educational Technology*, 48(1), 10-21.