The Sims2 and Women's IT Learning

Elisabeth R. Hayes
Arizona State University

Elizabeth King
University of Wisconsin-Madison

Jayne Lammers
Arizona State University

The Sims2 and Women's IT Learning

Elisabeth R. Hayes
Arizona State University
Elizabeth King
University of Wisconsin-Madison
Jayne Lammers
Arizona State University

Keywords: women's learning, computers, *The Sims*

Abstract: The purpose of this study was to investigate how women who create custom content for *The Sims2* acquire IT-related skills and knowledge. Interviews with twenty-six women suggest the importance of interest-driven learning, opportunities for horizontal as well as vertical learning, and the opportunity to develop "loose ties" with an extensive online social network of other *Sims* fans.

[What IT skills have you learned from creating Sims content?] Everything I guess. For me the computer was just a machine for reading e-mails before The Sims – Evi

Purpose

This study explores how adult women develop fluency with information technology (IT) through creating content for the computer game, *The Sims2*. Specific questions included: (a) What motivates women to initiate and persist in this learning? (b) What trajectories of expertise development do they pursue?, and (c) How do they use technologically mediated environments, in particular, fan communities, to support their learning?

In this era of "explosive growth of technology in every aspect of society" (Literacy Summit, 2002, p.4), what it means to be "fluent with IT" (National Research Council, 1999) is constantly changing. Full participation in our digital society is reflected in engagement with IT as a producer, not simply a consumer, of new media, often as a participant in online communities (Gee, 2007). The "digital divide" is now defined not simply by access to IT, but by appropriation of identities, practices, and values associated with productive IT use (Gee, 2007). Gender, race and class remain associated with IT fluency. There also is a generational divide, separating youth as "digital natives" from older adults as "digital immigrants."

Women face particular barriers to IT learning; women are less likely to pursue formal study of computer science (Margolis & Fisher, 2003), computing still is associated with "masculine" culture, and women's IT skills are less likely to be recognized in the workplace (Butterwick, 2003). For women, gaining IT skills outside of work or formal education may be crucial (ibid). Most scholarship on IT learning focuses on children, leaving us with limited knowledge of how adults develop fluencies later in life (Selwyn, Gorard, & Furlong, 2005)

Computer gaming offers many affordances for IT learning. Gaming is frequently identified by teenage boys as a motivation to pursue informal and formal study of computer science (Barron, 2004). Women over 18 now comprise more than 31% of computer and video game players (Entertainment Software Association, 2008). As women play in growing numbers, computer gaming may be a starting point for their development of IT fluency as well.

Women who play *The Sims2* were selected as the research focus. *The Sims2* is among the best-selling computer games of all time (http://en.wikipedia.org/wiki/The_Sims), attracting a majority of female players. *The Sims2* offers players many opportunities to create customized game content, using in-game tools or software such as *Photoshop* to customize and import content into the game. Players create clothing, objects, buildings, and Sims; they make storyboards, produce videos, write tutorials, and design fan sites. Online communities allow players to share content, utilize tutorials, ask questions, and gain social recognition for their expertise (i.e., see thesims2.ea.com). In a preliminary review of fan sites, we identified many women who were active producers of content, suggesting *The Sims2* as a promising avenue for investigation.

Perspectives

This study was informed by a learning ecologies framework (Barron, 2006). This framework assumes that learning is a dynamic process distributed across the contexts of home, school, community, and Internet (ibid). Important is how individuals develop motivations to learn that become self-sustaining, and how learners shape their learning environment through choosing peer networks, activities, and developing abilities and identities that in turn affect future learning (Nasir, 2002). Utilizing the learning ecologies framework, Barron (2006) found that girls and boys reported quite different home experiences with computing that in turn affected their interest in studying computer science in school.

Learning ecologies complement and extend theories of self-directed learning from adult education (Garrison, 1997). Studies have investigated how adults use IT, particularly the internet, for self-directed learning (Hiemstra, 2006; Rager, 2007), yet few have examined how adults learn IT skills outside of formal training (Butterwick, 2003; Selwyn, Gorard, & Furlong, 2005).

Research Design

We utilized an exploratory case study approach to identify key motivations, resources, and learning patterns among women adept at creating *Sims* content. (Future research will include women who were not interested in or deterred from IT learning.) We used purposive sampling to recruit women who were selected as productive artists by the site administrators of a popular (English language) *Sims* fan site. Potential participants were sent an invitation via email. Twenty-six women who agreed to be interviewed were emailed a survey with open-ended questions about their initial interest in *The Sims2*, their game play and content creation, what IT skills they learned and how, and how they might use these skills in other aspects of their lives. Twenty-two women responded to the first set of interview questions. Of these women, eleven responded to a follow up interview that explored their patterns of communication within the *Sims* fan community, their use of specific resources, such as tutorials and forums, their overall confidence in learning new technologies, and the extent to which they now were assisting others with computer-related tasks. We also included in our data set four interviews that were conducted by the fan site moderators and posted on the fan site. These interviews addressed some of the key questions in our protocol, such as IT learning associated with content creation, and thus provided valuable additional information. Each interview was summarized and key patterns identified in relation to our three research questions, consistent with a method called technobiography (Barron 2006; Henwood, Kennedy, & Miller, 2001).

Findings

The participants ranged in age from 20 to 61. Most of the women lived in the United States (reflecting the origin of the fan site), but there was an international representation among the group: three were Canadians, two were from England, one from Australia, one from Europe

(country not specified), and one from Turkey. Unlike the stereotypical gaming "addict," these women were quite involved in work, family, and other leisure pursuits. The majority of the women (71%) were employed; three worked in some kind of computer science related field, three were graphic artists, and two others were involved in some other kind of art or design work. Four of the participants were students (one in computer science), three identified themselves as housewives, one was unemployed, and one was on disability. The women exhibited an astonishing breadth of content creation; for example, one 51 year old woman created 2621 different items; her most popular item, "Talon Manor" (a mansion) was downloaded 11,402 times by other players.

Motivations to Play and Learn

Only a few of the women were young enough to start playing *The Sims* when they were teens (*The Sims1* was released in 2000). The majority began playing the game as adults, and most were introduced to the game through family or friends. Many mentioned watching someone else, such as a child, play the game and thinking the game would be fun to play. Only one woman identified someone she knew who introduced her to custom content creation. There are no instructions on how to create custom content included with the game itself (with the exception of a simple avatar creation tool called Body Shop), so having access to *The Sims* fan sites on the internet was a prerequisite for the women's first forays into custom content creation.

One of the most common reasons the women sought to create new content was their dissatisfaction with existing *Sims* content provided by Maxis or by other fans. One interviewee observed that the desire to create custom content is "really a matter of how tolerant a person is with the building/decorating limitations the game presents…It's also a matter of wanting to do it yourself rather than hunting down or requesting what you want from others." Notably, the amount of available content is already huge. In addition to hundreds of items supplied with *The Sims2* itself, there are seven expansion packs that provide many additional game items, and seven "stuff packs" that typically include about 60 additional items. Fan sites offer much more content; for example, one fan site offered more than 95,000 items in the category of clothing alone, as of March 2008. The women spoke of a dislike of the game's graphics, lack of very particular types of content (medieval clothing, for example), or a desire to make content that otherwise reflected their own personalities and interests. A key factor in their motivation was their desire to fashion a virtual world that fit their own desires, something that *The Sims* seemed remarkably well-suited for.

Some women referred to the "limitations of real life" as a motivation for custom content creation. For example, an architect said "I like the fact that I can carry out the most unreal projects and build houses that probably wouldn't be built in real life. I love building houses that are out of this century, for example Victorian buildings." Another woman reported: "I love to decorate my own house and am a Home Improvement show junkie. I watch them all Trading Spaces, Design on a Dime, Sell this House. I just finished a 2200 square foot remodel of my own house. Creating for the Sims was just another outlet for my obsession with redecorating."

While most of the women began creating content to enhance their game play, creating content eventually became their primary focus in the game. Once they began to post their custom content to the fan site, feedback they received from the fan community became an equally or even more important motivation for them to continue to refine their content creation skills. Their IT learning became tied to the identity of being an artist in *The Sims2* community. These identities were not without tensions; one woman described herself as having a "man's brain in a woman's body." However, perhaps because much content was compatible with

gender-typed practices (i.e., fashion designs, home decorating), *The Sims2* and its fan community seemed to allow women to acquire "tech-savvy" identities compatible with their identities in other spheres of life. Many women acknowledged that their family and friends had little or no understanding of what they were doing, though few reported any negative reactions.

Trajectories of Learning and Expertise

One way that we characterized the women's learning and expertise development was the extent to which they engaged in "horizontal" or "vertical" learning (Gee, 2004). Horizontal learning consists of experimenting with a wide range of different types of content and techniques. This woman's description of her current projects is illustrative:

> I've started a set of bedding, I have one more set of H&M clothing for women started, I have a couple of wall sets started, I'm also working on a set of neutral color tiles, carpet sets, and I'm starting some sets of H&M men's clothing.

In contrast, vertical learning involved spending a considerable amount of time developing expertise with one particular technique or type of content. One woman, for example, started by recoloring *Maxis* items, moved to recoloring custom content (a more challenging task) and at the time of her interview was "still working on perfecting my recolors." Neither approach was more valued in the community, and each was challenging in its own way.

A second feature of the women's learning was the extent to which their IT skills and knowledge were developed and applied across contexts of the game, home, work, and school. While not every woman reported using their *Sims*-related IT skills in other aspects of their lives, many did. The women who were employed in a computer or graphic-design related field obviously brought IT skills as well as interests to *Sims* content creation. These women tended to draw on this existing knowledge as they mastered tools specific to *The Sims2* or related software such as *Photoshop*.

Other women had little experience with computing prior to *The Sims*. Some described using their newly acquired skills extensively in their work or home situations, while others reported little or no application of these skills in the rest of their lives. A few women described how they used what they learned creating *Sims* content in their jobs. One woman, an accountant, was particularly eloquent:

> It seems that now everyone thinks accountants should be IT techs too. I have learned how to network computers, by having 2 computers simultaneously connected for more ram. I have learned how to identify programs simply by exploring the drive. I have learned how to map a drive. I have learned the difference between ram and hard drive space. So yes, it has been my "accidental" helper.

Other women provided examples of applications ranging from being better able to teach their children and other family members how to use computers, to developing an interest in editing photographs into artwork for their own homes. Prior research (e.g., Fitzpatrick & Stringer, 2007) has tended to focus on how IT skills and practices in school and the workplace influence home computer use. *The Sims* fan communities, along with other online communities, constitute a "third place" (Oldenburg, 1999) for learning that may have an increasingly significant influence on the use of IT in these other contexts.

Technologically-Mediated Learning: Fan Communities

Important to the women's continued IT learning were social networks provided by the online fan community. In contrast to the findings of Selwyn et al. (2005), in which adults relied almost exclusively on people in their immediate family or friends for help with learning IT, our participants made extensive use of forums, online tutorials, and direct communication with other

fans. The fan community was initially useful to the women as a source of extensive examples of custom content, similar to what Bruckman (1998) calls "situated, ubiquitous project models." Just as importantly, this content was readily accessible for "reverse engineering," which several women mentioned as a strategy they used for learning to create new content.

As centers of sociotechnical capital (Resnick, 2002), the fan sites enabled the women to form "loose ties" (Granovetter, 1973) with other fans that contributed greatly to their motivation to learn as well as access to information and assistance. All of the women mentioned posting questions on the forums or emailing another artist when they were faced with a technical problem. Only a few women mentioned specific individuals who were mentors or otherwise particularly important to their learning, and a few referred to collaborating with other artists as helpful. Most talked in more general terms about the community as a valuable resource. Developing an ability to navigate and participate in the fan sites obviously was crucial for women who had few resources for learning IT in their immediate social contexts.

Implications

We chose to study women who found these communities to be supportive of their IT learning, yet we can imagine that some potential learners might find such sites to be intimidating or just unappealing. How do elements of these sites encourage or discourage the IT learning of a wider sample of women? Recognition as "artists" on *The Sims* fan site certainly motivated the women in our study to engage in further learning; however, they were selected because they already had created content of some note. Future research might follow women in a more longitudinal fashion to determine how motivations and learning change over time.

One aspect of the *Sims* fan site in our study that seems important was the positive nature of the communication among participants. How this supportive culture was created and sustained is another important focal point for further study. In particular, the significance of gender in cultivating this culture is worthy of investigation, since women comprise a considerable proportion of *Sims* fans. Of course, many men also create custom content for *The Sims*, and future research might address questions related to how gender affects the IT learning process, the extent to which men identify similar or different motivations and trajectories of learning, and the relative importance of the fan community in their learning.

Such studies can be part of a broader research agenda focused on adult learning among the growing number of "pro-ams" – people who pursue amateur activities at a professional level of expertise and commitment (Leadbeater & Miller, 2004). These enthusiasts are an increasingly important part of our society and economy, and are as yet unexamined from the perspective of adult learning and education.

In terms of practice, our study revealed that the women's IT learning trajectories had to develop over time, as they identified new interests, were exposed to new software tools, observed models of how those tools could be used for creative purposes, and chose their own trajectories of IT learning. In contrast, formal IT education is typically offered in the form of short courses, workshops or other formats that restrict learning to a particular topic and timeframe. Online fan communities may serve as models for the design of resources that contribute to continued learning, re-constructing identities, and connecting learners with larger communities.

References

Barron, B. (2006). Interest and self-sustained learning as catalysts of development: A learning ecology perspective. *Human Development, 49*, 193–224.

Bruckman, A. (1998). Community support for constructivist learning. *Computer Supported Cooperative Work, 7*, 47-86.

Butterwick, S. (2003). *Missing in action: Women's alternate and informal IT learning.* Paper presented at the First Annual Conference, Centre for Work and Learning, University of Alberta.

Entertainment Software Association (2008). *Top 10 industry facts*. Retrieved March 12, 2008, from http://www.theesa.com/facts/top_10_facts.php

Fitzpatrick, G. & Stringer, M. (2007). Exploring technology influences between home, work, school. In A. Venktatesh, T. Gonslaves, A. Monk & K. Buckner (Eds), *Home Informatics: ICT for the next billion* (pp. 235-250). New York: IFIP Springer.

Garrison, D.R. (1997). Self-directed learning: Toward a comprehensive model. *Adult Education Quarterly*, *48*(1), 18-24.

Gee, J.P. (2004). *Situated language and learning: A critique of traditional schooling*. New York: Routledge.

Gee, J. P. (2007). *What video games have to teach us about learning and literacy* (Second Edition). New York: Palgrave MacMillan.

Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, *78*, 1360-80.

Henwood, F., Kennedy, H., & Miller, N. (2001). *Cyborg lives? Women's technobiographies*. York, UK: Raw Nerve Books.

Hiemstra, R. (2006, February). *Has the Internet changed self-directed learning?* Paper presented at the 20th International Self-Directed Learning Symposium, Cocoa Beach, FL.

Leadbeater, C. & Miller, P. (2004). *The Pro-Am revolution: How enthusiasts are changing our economy and society*. Available: http://www.demos.co.uk/publications/proameconomy.

Margolis, J. & Fisher, A. (2003). *Unlocking the clubhouse: Women in computing*. Boston: MIT Press.

Mocker, D.W. & Spear, G.E. (1984). The organizing circumstance: Environmental determinants in self-directed learning. *Adult Education Quarterly, 35*(1), 1-10.

Nasir, N.S. (2002). Identity, goals, and learning: Mathematics in cultural practice. *Mathematical Thinking and Learning, 4*, 213–248.

National Research Council.(1999). *Being fluent with information technology*. Washington, D.C.: National Academy Press.

Oldenberg, R. (1999). *The great good place: Cafes, coffee shops, bookstores, bars, hair salons, and other hangouts at the heart of a community*. Washington, DC: Marlowe & Co.

Rager, K. B. (2007). Gender as a context for interpreting the self-directed learning experiences of prostate and breast cancer patients. *International Journal of Qualitative Studies in Education*, *20*(5), 565-583.

Resnick, P. (2002). Beyond bowling together: Sociotechnical capital. In J. Carroll (Ed.). *HCI in the NewMillenium* (pp. 647-672). New York: Addison-Wesley.

Selwyn, N., Gorard, S. & Furlong, J. (1995). *Adult learning and the digital age*. Oxford: Routledge.

21st Century Literacy Summit. (2002). *21st century literacy in a converent media world*. Berlin, Germany: Author.