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Fantasy Baseball

The Case for Competitive Fandom

Erica Rosenfeld Halverson Richard Halverson University of Wisconsin–Madison

The authors propose the concept of competitive fandom to describe the learning, play, and engagement of fantasy sports. Competitive fandom draws together contemporary research on fan cultures and game design and game communities to describe the interaction present in fantasy sports. Fantasy sports games require a combination of fan culture practices and gamers' skills and habits of mind. Fandom becomes competitive when the knowledge acquired in the fan domain is transformed into strategic information to guide play in a new kind of game. This combination of frames helps describe the kinds of knowledge and motivation required to play fantasy sports and how such participation sparks further learning. Through analysis of individual game play within the context of the league community in which fantasy team owners play, the authors aim to understand what and how people learn from playing in competitive fandom settings and the implications of these findings for the design of learning environments.

Keywords: fantasy sports; fan culture; competitive gaming; expertise

"And it really is like Christmas morning. Draft day is one of my favorite days of the year."

Mark, owner of *The Spiders* and member of the Mario Mendoza Memorial League

In this article, we propose the concept of competitive fandom to describe the learning, play, and engagement of fantasy sports. Fantasy sports have exploded in popularity as a result of the cultural convergence described by Jenkins (2006) as "the place where old and new media collide." Sports fans, and baseball fans in particular, have discussed and analyzed player and team statistics since the beginning of sports. Now computer technologies organize and provide access to statistical information that has transformed traditional fandom into new kinds of games that pit fans against other fans. In traditional sports, fans root for teams and players but cannot control (however they may wish to!) the outcomes of the sporting event. Fantasy sports take the statistical output of sport as the mechanism that allows fans to compete with other fans to more accurately predict the statistical performance of players. This

"game-upon-a-game" feature of fantasy sports has opened up an explosive new market for participatory media—in 2006, more than 20 million players spent over \$1 billion on the fantasy sports industry (Fantasy Sports Trade Association [FSTA], 2007).

The concept of competitive fandom draws together contemporary research on fan cultures (Black, 2006; Ito, in press a, in press b; Jenkins, 1992, 2006; Lemke, 2006) and game design and game communities (Gee, 2003; Salen & Zimmerman, 2004; Squire, 2006; Steinkuehler, 2006) to describe the interaction present in fantasy sports. At their core, fantasy sports games require a unique combination of fan culture practices such as the acquisition and reappropriation of a large body of content knowledge for personal use (Ito, in press b; Jenkins, 2006) and the skills and habits of mind characteristic of gamers who acquire in-game expertise over hundreds of hours of game play (Squire, 2006). Fandom becomes competitive when the knowledge acquired in the fan domain is transformed into strategic information to guide play in a new kind of game. This combination of frames—fan culture and gaming helps to describe both the kinds of knowledge and motivation required to play fantasy sports and how such participation sparks further learning.

In this article, we examine how fantasy baseball illustrates the frame of competitive fandom. We focus on two central questions: (a) How do fantasy baseball players acquire, store, and use their knowledge about baseball and fantasy-specific strategies to play the game? (b) What kinds of communities are built as a result of game play, and what might that tell us about the creation of a "designed experience" (Squire, 2006), a learning environment that employs competitive fandom as a principle for design? Our analysis focuses on individual game play within the context of the league community in which fantasy team owners' play. Our overarching aim is to understand what and how people learn from playing in competitive fandom settings and the implications of these findings for the design of learning environments. In the next sections, we describe the game of fantasy baseball and introduce the concept of competitive fandom. Using data collected on three fantasy baseball leagues, we highlight three unique fantasy baseball player profiles to demonstrate how the competitive fandom framework can be used to analyze trajectories of fantasy baseball interest and play. We conclude with a discussion of the implications of this work for educational settings.

Fantasy Baseball

In recent years, fantasy baseball has emerged as a leading form of technologyenabled fan participation. Thanks to popular press best sellers like Bringing Down the House (Mezrich, 2002) and Moneyball (Lewis, 2003), the relationship between statistics and sports has brought the interests of math geeks to the water cooler. Fantasy baseball, in particular, has come into the mainstream media; Sam Walker's bestselling book Fantasyland chronicles his yearlong sabbatical from the Wall Street

Action Opp K ERA WHIP Carlos Zambrano (ChC - SP) SP Phi 7:05 pm 150.1 14 0 128 3.47 1.23 Oliver Pérez (NYM - SP) @Mil 7:05 pm 114.0 0 108 2.84 1.18 Todd Jones (Det - RP) @Oak 9:05 pm 23 4.67 1.47 P LAA 9:05 pm 56 0.89 0.58 Hideki Okajima (Bos - RP) Bal 6:05 pm 51.2 44 0.87 0.81 Juan Cruz (Ari - SP,RP) 41.0 0 56 2.85 1.34 @SD 9:05 pm P LAA 9:05 pm 42.2 46 3.16 1.62 Kenny Rogers (Det - SP) DL @Oak 9:05 pm 17 5.23 1.41 BN Chad Gaudin (Oak - SP,RP) P Det 9:05 pm 131.0 0 85 3.71 1.47 ₹ Tex 6:05 pm BN Jake Westbrook 72.1 39 5.85 1.55 0 @Pit 6:05 pm BN 111.1 0 53 4.85 1.40 € F SF 9:10 pm Randy Wolf (LAD - SP) DL

Figure 1 **Typical Fantasy Baseball Roster With Accumulated Statistics**

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Journal spent playing in the Tout Wars, the world's most competitive fantasy baseball league (Walker, 2006). High-profile newspapers such as The New York Times and the Wall Street Journal have reported on everything from fantasy baseball play as postmodern fandom (Curtis, 2007) to the rise of unlikely fantasy sports games like fishing (Delaney, 2006) to real judges settling disputes about fantasy baseball trades (Thompson, 2007). Fantasy baseball is now played by more than 10 million people who spend almost \$500 million annually on their obsession (FSTA, 2007).

Fantasy baseball play involves drafting a team of individual Major League Baseball players and managing a roster throughout a baseball season. Fantasy owners get points for the statistics earned by Major League players and compete against the cumulative statistical achievement of the rosters of other team owners. A fantasy team is typically composed of 25 players; one third of these players are pitchers, and two thirds are hitters, including players at each fielding position. Relevant statistics often include home runs, runs batted in, runs scored, batting average, stolen bases for hitters, and wins, saves, strike outs, earned run average (number of runs allowed per nine innings), and WHIP (walks plus hits per inning pitched; base runners allowed) for pitchers. Leagues often customize the statistics that count for league success. Figure 1 shows a typical fantasy baseball roster, along with the players' relevant statistics.

Although there are many variations of fantasy baseball play, Levy (2005) outlines the five stages that most fantasy leagues share:

1. Preparation. Team owners get ready for a fantasy baseball season by preparing to select real baseball players for their fantasy teams. Owners follow traditional media for tips about new rookies, injuries, and breakout players to rank the desirability of Major League players. In the 23 years since the first Rotisserie League Baseball book (Waggoner, 1984), containing rules of game play and relevant real-world statistical information, was published, an entire media empire has sprung up that includes Web sites, books, magazines, chat rooms, statistical programs, and radio and television shows, all geared toward helping fantasy baseball players prepare for their seasons. The preparation phase may also include deciding on the league's rules for play, which categories to use for scoring, how to attribute points to these categories, and so on. Preparation can be as simple as downloading a preconstructed player rankings sheet to developing original formulas for calculating players' value. Expert owners spend a huge amount of time, and take great pride in, constructing their own ranking system in preparation for player selection.

- 2. Player selection. Many fantasy baseball owners describe the player selection or draft process as their favorite part of the game. There are two primary forms of player selection: drafts and auctions. In a "straight draft," owners select real players in a round-robin fashion. In an "auction draft," owners are given a salary cap, typically \$260, which they can spend to choose their 25 players. Owners cannot spend more than their salary cap and must reserve at least \$1 for every slot on their roster. In some leagues, owners are allowed to retain players from prior years of a league, which introduces an element of long-term managerial strategy. The player selection process is generally seen as a demanding test of expert knowledge that requires negotiating skill and endurance, and luck.
- 3. Daily roster management. Throughout the season, owners have the capacity to "manage" their team through trades, injured reserve lists, or waiver and free agent claims. Few fantasy leagues draft all available major league players. Team management is at least a daily task. Fantasy baseball Web sites such as Yahoo! Sports, ESPN.com, and CBS Sportsline provide a variety of tools for analyzing players and managing rosters.
- 4. Negotiation. Fantasy owners engage in trade negotiations, trash talk, and psychological ploys to acquire valued players. Negotiation takes place either asynchronously through the league's message board or directly through e-mail, text messaging, league message boards, and if owners know each other outside of the game, conversations in bars and other social spaces.
- 5. Winning and losing. Because fantasy baseball is, ultimately, a game, there is a winstate with first-, second-, and third-place finishers. Some leagues focus on piling up statistics throughout the year (see Figure 2), and others focus on head-to-head play, where owners are pitted against other owners in weekly match-ups (see Figure 3). In cumulative leagues, the winner is determined by who sits atop the rankings when the fantasy season ends. In head-to-head leagues, the top six teams compete in several weeks of playoffs. Although money is often at stake in these games, many fantasy baseball players are much more invested in the personal pride associated with winning (Walker, 2006).

Fantasy baseball, like many technology-driven games, began with a low-tech version, Strat-O-Matic, a baseball simulation game. Levy (2005) describes how Strat-O-Matic used past player performance to establish a probability model for future

Figure 2 Head-to-Head Competition in Rotisserie Fantasy Baseball

Team	Batting				Pitching						
	R	HR	RBI	SB	OBP	W	S¥	K	ERA	WHIP	Score
Pacific Pacifists	30	7	33	2	.320	3	2	43	3.21	1.25	1
The Spiders	39	14	41	8	.383	5	4	37	2.78	1.10	9

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Figure 3 **Cumulative Competition in Rotisserie Fantasy Baseball**

Rank	Team	Points	Pts Change	Walver	Moves
1.	Wizard Needs Food	101.5	0	4	18
2.	kratties	96.5	2.5	12	50
2.	gin and jews	96.5	-2	15	22
4.	Rivieras	95	-1.5	9	31
5.	ligers	92.5	-1.5	11	9
6.	BoardWalk	88.5	3	8	18
7.	Teh Bear Claws	88	-2.5	6	3
8.	Washington UL's	87.5	-0.5	2	6
8.	absolut n00b	87.5	-1	10	3
10.	The Beavers	67	-2	5	
11.	Slobberknocker Pigs	64.5	-1.5	14	12
12.	SAY YOHO	64	3.5	7	12
13.	Diablos Rojos Mexico	61	3	3	-
14.	Wrigleyville Nine	59	0	13	18
15.	Tawchoks	51	0.5	1	

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play. The game then "systematized these probabilities and created a language in which specific rolls of the dice would be matched to players' actions" (p. 104). Many avid fantasy players describe playing Strat-O-Matic as their introduction to the world of applied statistics (Johnson, 2005). The generally accepted origin of fantasy sports, however, was the design of the Rotisserie League Baseball game by former New York Times editor Dan Okrent and his friends. Glen Waggoner, one of Okrent's friends and league mates, published Rotisserie League Baseball in 1984, describing the game's rules and play structure and cementing the Rotisserie League as the first legitimate fantasy sports game.

The recent convergence of traditional and digital media, however, has taken the cultural practices of fans have from geek to chic. Jenkins (2006) describes how throughout his years chronicling television fans, he has "watched fans move from the invisible margins of popular culture and into the center of current thinking about media production and consumption" (p. 12). The same can be said for fantasy baseball, as Bryan Curtis (2007) wrote in a recent article for *The New York Times*:

Consider this the next time you're tweaking your fantasy baseball lineup: you are part of an intellectual revolution. . . . With every hour you spend "managing" your fantasy team . . . with every soul fiber you sink into fantasy baseball, you move one step closer to becoming a postmodern baseball fan.

It is not surprising that the explosion of participation in fantasy sports has sparked some academic interest. Previous study results have been broad brushstroke looks at fantasy sports, focusing on über-expert players (Levy, 2005) or overall game play phenomena such as in-game decision making (Smith, Sharma, & Hooper, 2006). Although these studies have paid some attention to the nature of game play, the issues involved with how participants become players, how they acquire expertise, and even why they play in the first place have been left relatively unexplored. In our work, we have developed the competitive fandom framework to analyze this personal learning process and to locate how individual players, not all of them expert, fall in different places within the framework.

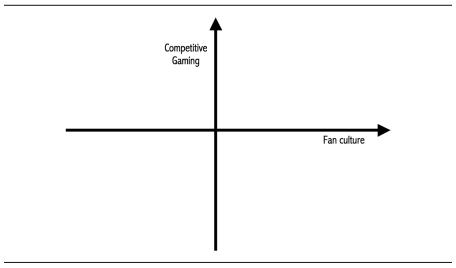
Competitive Fandom = Fan Culture + Competitive Gaming

Competitive fandom is rooted in comprehensive domain knowledge acquired through fan cultural practices, which include the consumption of franchise media as well as the consumption and production of fan-based media (Lemke, 2006). Fan culture becomes competitive fandom when content knowledge is repurposed for use in a game context that has core game features, including a defined rule set and quantifiable outcomes (Salen & Zimmerman, 2004). We represent the relationship between fan culture and competitive gaming with two intersecting axes that will frame our subsequent analysis (see Figure 4).

Fan Culture

Our understanding of fan cultural practices draws from research on sports fan practices (Crawford, 2004; Gantz & Wenner, 1995; Levy, 2005) as well as work that

Figure 4
Basic Competitive Fandom Framework



focuses more broadly on fan cultural communities (Black, 2006; Ito, in press a, in press b; Jenkins, 1992, 2006; Lemke, 2006). Here, we highlight three aspects of fan culture research for fantasy baseball: dual planes of activity, mash-up modes of production, and participation in the transmedia complex.

Dual planes of activity. In the past, sports fandom has been viewed as strictly consumptive, defined as "a composite of knowledge, affect, and viewership" (Gantz & Wenner, 1995, p. 59) or as "the consumption and processing of sport information and media spectacles" (Levy, 2005, p. 210). Media and fan culture studies, however, emphasize how fan practices are both consumptive and productive enterprises (Jenkins, 2006). Fantasy baseball players take an active role in their fan practice by creating an autonomous plane of game play, recasting the primary activity (a real baseball game) into a world they can control. Fan cultural practices consist of activity on two planes. The primary plane of activity is the original franchise media (Lemke, 2006), which can be fictional (i.e., Star Wars or Harry Potter) or real (i.e., Major League Baseball). Fans have little control over what happens in the primary plane and relate to it as media consumers. The secondary plane involves the transformation of primary franchise media content into productive expressions. In many cases, the fan media can itself become a franchise, as in the case of fantasy baseball, where expert fantasy baseball players have become entrepreneurs who make their

living selling fantasy baseball books, Web site memberships, and expert advice (Walker, 2006).

Mash-up production. Studies of fan culture have demonstrated that knowledge communities are constructed around the "mash-up" of cultural artifacts designed to take up the characters, storylines, and ways of life across a variety of media, including television shows (Halverson, 2007; Jenkins, 1992, 2006; Lewis, 1992), Japanese anime (Black, 2006; Ito, in press a, in press b), and children's card games (Gee, 2004; Ito, in press b). Rebecca Black (2006) describes the practice of production in fanfiction, where "fans use media narratives and pop cultural icons as inspiration for creating their own texts" (p. 172). All of these fan communities rely on the production of text, artwork, or multimedia "mash-up" (as parody and/or remix) as the organizing construct around which the communities come into being and exist over time. Participation in fantasy sports communities share many fan culture practices, such as acquiring and using detailed, organized content knowledge around the production of something new (in this case, a fantasy team) as well as engagement in specialized discourse practices as members discuss and compare the original work and their subsequent production.

Transmedia complex. Participatory fan cultures also depend on a "transmedia complex," an "intertextual network that crosses the boundaries of genres and media" (Lemke, 2006, p. 576). The transmedia complex includes franchised media, such as books, movies, videogames, and toys, as well as fan-generated media, such as blogs, Web sites, and fanfiction. Harry Potter is an example of a prototypical transmedia complex, marked by a large number of franchised products originating from the book series. The nonfranchised, fan-produced elements of the Harry Potter transmedia complex have exploded to the point where the final book of the series was preceded by Mugglenet.com's What Will Happen in Harry Potter 7 (Schoen, Spartz, Gordon, Stull, & Lawrence, 2006), an entirely fan-written book originating from one of the more popular fan Web sites. Jenkins (2006) describes how the transmedia complex represents an "ever more complex relation between top-down corporate media and bottom-up participatory culture" (p. 243). The emergence of the transmedia complex across fan communities has created an uneasy two-way flow between traditional producers of proprietary content and consumers. This same uneasy, reciprocal relationship exists between fantasy and Major League Baseball. Early adopter fantasy baseball experts have made careers out of publishing their fantasy baseball insights; some have even been hired by Major League teams. Professional baseball players and managers have also been known to play fantasy and digital versions of theirs and other sports (Crawford, 2004; Walker, 2006). In a recent New York Times article, Curtis (2007) describes the permeable membrane between fantasy and real baseball: "Fox [TV] has inserted fantasy statistics into its game-of-the-week broadcasts, and even crusty old Fenway Park puts the fantasy stat WHIP (walks plus hits per inning pitched) on a scoreboard." Fantasy baseball has become a contributing component of the transmedia sports empire.

Competitive Gaming

Although fantasy baseball communities mirror other participatory, media-based fan communities, the core activity of fantasy baseball is competitive game play. We turn to Salen and Zimmerman's (2004) work on game design to help us define the concept of competitive gaming. They define *games* as "system[s] in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome" (p. 80). Three key elements of this definition are most relevant to our construction of competitive fandom:

- Artificial. Although games draw influences from the real world, they are a fundamentally separate world in which players can exercise agency.
- Rules. Rule systems constrain the game space as they are fixed, binding, explicit, unambiguous, and therefore shared by all players.
- Quantifiable outcomes. There is a measurable win-state that determines who has fared better than whom.

The artificiality of fantasy sports supplements the dual planes of fan culture. Although the fantasy game itself is artificial, events in the real world (which game players cannot control) shape the game's play and eventual outcomes. In this way, fantasy baseball most closely resembles augmented reality simulation games, which create a hybrid world that is part real, part virtual (Klopfer & Squire, in press). Although fantasy baseball players take on the identity of team owners and managers, performing similar tasks and developing a sense of ownership over players, managers are still beholden to the way these players perform in the real world. Some of these realities are equivalent to ones a real manager would face—an injury to a star player forces the manager to replace that player with someone with lesser skills, whereas other realities such as a team taking the "closer" role away from a single relief pitcher and moving to "closer by committee," where multiple pitchers fill the closer role, affect fantasy players much differently than real-life managers. Still, the game play of fantasy baseball is self-referential in ways that lead traditional sports fans to often hold this separate focus of fantasy sports in contempt.

The rule system that constrains play is a crucial element in understanding game play. Squire (2006) describes the "powerful constraints instantiated through software and social systems" (p. 26) as a key to shaping videogames as designed experiences for learning. Although fantasy baseball players' strategies are highly variable, both in drafting and in managing teams throughout the season, the strategies themselves are shaped by the rule system that constrains play. For example, in auction-style drafts, players always have a salary cap, an amount of money they must stay within as they draft their full roster of players. Players can use any one of many strategies for working within this constraint from the "stars and scrubs" strategy where an owner pays a high price for a few superstars and fills the rest of their roster with unknown players to a more unconventional strategy such as choosing all players of a particular nationality or all players with funny names.

Quantifiable outcomes sets fantasy sports apart from more traditional forms of fan cultural practices. Fantasy baseball players spend countless hours preparing for the season and managing their team, not just so their favorite real-world team will do better and not just to produce something that represents their ideas about baseball or baseball players but rather to win. Like all games, there is a clear win-state in fantasy baseball, one that involves coming out ahead of all your competitors. Although money is sometimes involved, most fantasy baseball players report playing for the pride involved in demonstrating superior knowledge and skills (Walker, 2006).

Player Profile Study

This article is the theoretical framework for a larger study we are conducting of multiple fantasy baseball leagues across the baseball season. In our larger study, we are interested in how players, from first-time players to longtime experts, play the game how they learned to play, why they play, and how their game play has changed over time. We are also interested in fantasy baseball leagues as participatory media spaces and understanding how individuals' game play is stretched across the online world and their personal social interactions with league members. We see each of the three leagues we study as an ethnographic case study (Yin, 2002) that includes both the traditional elements of a case study as well as the elements of "cognitive ethnography" (Hutchins, 1996) described in other studies of online media spaces (Ito, in press b: Smith et al., 2006; Steinkuehler, 2006). Data collected in this study include the following:

- Survey data. We constructed our own survey geared toward the leagues we are studying and examined comprehensive survey data of fantasy baseball fan practices (FSTA, 2007; Levy, 2005).
- Interviews. We conducted semistructured interviews (Ginsburg, 1997) with members of every league stretched across the course of the season.
- Artifact collection. Although Smith et al.'s (2006) study of decision making in fantasy basketball focused on message board discourse as the primary mechanism for uncovering players' thinking, we use the trail of game play, roster moves, trades, league messages, and other forms of communication as our primary mechanism to watch game play strategies unfold over time.

Our goal in this article is to introduce readers to the construct of competitive fandom through fantasy baseball. As such, the data we use from our study are primarily demonstrative of this construct and have helped us to unpack what competitive fandom looks like in action. In the analysis that follows, we use primarily interview data, supplemented by survey data and artifact collection, to flesh out the concept of competitive fandom through the construction of player profiles. The units of analysis here are individuals, but it is crucial to note that we look at these individuals both

Competitive Gaming The Wrigleyville Nine The Spiders Fan Culture The Bear Claws

Figure 5 Player Profiles Located Within Competitive Fandom Framework

in the immediate context of the league in which they play and in the broader context of their lives outside of fantasy baseball as baseball fans and game players.

Analysis

In this section, we take up the framework to present three player profiles, named by their fantasy team names, each one of which fits into a different active quadrant in the competitive fandom framework (shown in Figure 5). Table 1 marks our three player profiles and where each player sits along the two axes of the competitive fandom framework. We found there were owners in our study who illustrated high fandom/low competition (Wrigleyville Nine), low fandom/high competition (Teh Bear Claws), and high fandom/high competition (The Spiders). We found no team

1 100,01 1	Tayor Trongs and the Competitive Landon Constitution					
	The Wrigleyville Nine	Teh Bear Claws	The Spiders			
Fan culture	High	Low	High			
Competitive gaming	Low	High	High			

Table 1 Player Profiles and the Competitive Fandom Constructs

owners to illustrate the low fandom/low competition quadrant—most likely because these kinds of players would not be interested in fantasy baseball.

The Wrigleyville Nine

At the end of the day, I will not root for my fantasy team over my deeper self-interests . . . my fandom. My fandom trumps my fantasy team.

Dylan, the owner of *The Wrigleyville Nine*, is a first-time fantasy baseball player, but he is most definitely not new to baseball. His story of baseball fandom has two distinct parts: his lifetime love of the Chicago Cubs and his love for numbers, specifically statistics. These two narratives run on parallel tracks, but both frame his participation in baseball fan culture and his participation in the dual planes of fan and franchise activities.

Dylan's story of Cubs fandom stretches past his memory to stories told to him of being taken to Cubs games by his grandfather when he was little. Though throughout his life he has been a fan of some individual players on other teams ("If you were a good Jewish boy, Sandy Koufax was God," Dylan notes), he is for the most part a Cubs fan. His story continues to memories of playing catch with his uncle in the Wrigleyville neighborhood of Chicago, home of the Cubs (his fantasy team name, The Wrigleyville Nine, identifies his diehard Cubs fandom). He maintained his loyalty to the hapless Cubs despite his family's move to Los Angeles, to the East Coast, and finally back to the Midwest. When asked to list his three favorite teams, Dylan listed only the Cubs. He describes his fandom as "root[ing] for the laundry; I root for the Cubs and I don't care who's in the uniform." Dylan is a fan of the Cubs regardless of who plays for the team and, in fact, is not terribly interested in the individual players.

In addition to his "rabid" Cubs fandom, Dylan also has developed an academic interest in baseball research. He is an active member of the Society for American Baseball Research (SABR), an organization dedicated to "the science of objective knowledge in baseball." Dylan applies his professional interest in statistical analysis to large historical data sets to test the accuracy of commonly accepted wisdom about statistical trends in baseball. SABR, Dylan notes, is a serious organization where "the level of professionalism and academic level is really astoundingly high." Dylan attends the annual SABR conference and presents academic papers on sabermetrics that focus on the statistical analysis of long-term baseball trends.

It would seem as though Dylan's interest in baseball and statistics would add up to intense fantasy baseball interest. However, Dylan falls into the upper left quadrant of our competitive fandom analytic frame—high on fandom, low on competitive gaming. This is confirmed in his survey responses, his self-report of both fan and competitive gaming activities. On the key questions that measure baseball fandom, Dylan scored himself consistently at the highest level, including gauging his love for baseball as a sport and his commitment to his favorite team. On key questions that measure his degree of interest in competitive gaming, Dylan scored himself consistently at the lowest levels. Although he reported having a high degree of knowledge about baseball itself, he did not answer the survey questions designed to test players' content knowledge of baseball players and fantasy baseball knowledge.

Dylan's interest in baseball is primarily restricted to being a fan, and he does not see how participating in fantasy baseball enhances fandom. Dylan reports knowing much about baseball and is able to construct a rich narrative about his lifelong Cubs fandom but has limited interest in acquiring the knowledge of specific players that make owners able to compete in fantasy baseball. "I'm impressed with people into fantasy who can talk about players at the minutiae level. My eyes are glazing over—you could be talking about some guy who's in the English department." This contrast is consistent with his idea of "rooting for the laundry." Dylan has little interest in the accomplishments of individual players, noting "at the end of the day, the most important statistic in baseball is the number of runs a team scores. And it's the one thing that isn't important in fantasy."

As a fantasy team owner, Dylan struggles with the connection between baseball and fantasy baseball game play. He recognizes the idea that fantasy baseball, like all competitive games, is artificial with its own set of rules and constraints: "I just don't see fantasy baseball as baseball. . . . I would say that it's probably closer to chess than it is to baseball. To me it's a game, played with baseball players. But it isn't baseball." And Dylan is still deciding whether this game, that is not baseball, is worth investing time in playing.

Teh Bear Claws

It's like playing with blocks where the blocks should be individually significant but you can't remember for the life of you . . . you can't see the features that make them unique . . . it's so over my head. But I love that, though. I can't see the horizon of the game.

Carol's intentionally misspelled team name, *Teh Bear Claws*, and her accompanying "smack talk" "All your base are belong to us"—identify Carol as a gamer who consciously self-references her own newbie status. She even refers to herself this way when describing her play: "I'm such a noob, I don't really completely

understand the interface." Teh Bear Claws typifies Carol's status as a fantasy player, locating her squarely in the lower right quadrant of the competitive fandom matrix low on fandom, high on competitive gaming. An avid gamer, Carol scored consistently high on our survey measures of competitive gaming. She reported engaging in other forms of gaming more than an hour per day and chose "I like to play games" and "I like to win" as the two reasons she plays fantasy baseball. Her baseball fandom is new and idiosyncratic. She reports that she became a Red Sox fan last year when attending a game at Fenway Park and said would likely change her favorite team if her spouse did. Additionally, she scored low on her self-report of baseball and fantasy knowledge and was unable to answer any of the content questions about baseball players or fantasy baseball strategy.

There are several key features of Carol's profile as a fantasy baseball player that are worth noting. First, she leveraged her experience as a gamer to develop a working knowledge of the rule system that guides play. Although Dylan emphasized the differences between Major League Baseball and fantasy baseball, Carol learns about Major League Baseball by learning to navigate the fantasy baseball rule system. For example, when we asked her to describe the scoring categories in fantasy baseball, she started with the pitching categories, noting that she "is trying to understand the pitching part of the game." Seven weeks into the baseball season, she was able to explain three of the five pitching statistics. Carol developed a strategy to reduce the enormous body of content knowledge about individual players required to follow fantasy baseball by purposely drafting multiple players from her favorite team, the Red Sox, and following their progress as a surrogate for following her fantasy team:

I don't know enough about the teams yet, and I don't know enough about baseball for me to pay attention to more than one team. So it's easier for me to say, "the Boston Red Sox did well" or "Curt Schilling did well" and then look to the fantasy team because they're loosely correlated.

Her strategy also served to build her interest in Major League Baseball. Crawford (2004) hypothesizes that sports fandom and gaming are reciprocally related; not only do sports fans develop a love of digital gaming through their favorite sport, but digital gamers may develop an interest in sports through the games they play. Carol now listens to baseball games on the radio and, in one of her first acts back on American soil after a Eurpoean trip, checked how the Red Sox did the night before.

Carol is an avid gamer and in particular a fan of Massively Multiplayer Online (MMO) games. Her gaming expertise allows her to see nuanced differences in the community of gamers and gaming structure between MMOs and fantasy sports. She describes the community of fantasy sports gamers as "more diverse" than MMO players. She was not referring to the population of players, which is currently overwhelmingly college educated, White, and male (FSTA, 2007; Levy, 2005). Instead, she was describing the gaming habits associated with each game type: "There's just so many ways into fantasy baseball. And with the online game stuff . . . it's a very particular kind of taste. You either like it or you don't like it." Here, she references the transmedia complex associated with Major League Baseball, including consumption media like listening to games on the radio and online media like fantasy baseball update Web sites (e.g., Rotoworld.com, rotowire.com). Also, she notes how fantasy baseball could be played in small time increments, whereas an MMO like World of Warcraft is most often played in large, multihour chunks of time. For Carol, the accessibility of options for participation and flexibility of time are features that allow for diversity in the gaming community.

As a gamer, Carol is interested in improving her fantasy baseball skills but is also using the game as an opportunity to enrich her baseball fandom. In her case, she uses her participation in fantasy activity as an induction into fan-based and franchise-based baseball activity. Her status as a fantasy baseball newbie, however, is still apparent to her as she talks about the game play: "It's like playing with blocks where the blocks should be individually significant but you can't remember for the life of you . . . you can't see the features that make them unique."

The Spiders

[On moving from Cleveland to Chicago] I decided it was not a betrayal of my American League sweetheart, to have a National League mistress.

The 1899 Cleveland Spiders had the worst record in Major League Baseball history—20 wins, 134 losses. The Spiders folded the next year. Mark's use of *The Spiders* as his team name belies both his fandom and his commitment to competitive gaming, a tribute to his lifelong love of all things Cleveland and an ironic comment on his fantasy team in choosing an obscure team name. Mark's profile fits in the top right quadrant of our analytic framework—high fandom and high competitive gaming. He is the only player of the three described here who was able to answer the survey questions about fantasy baseball strategy as well as questions testing his knowledge of real baseball players correctly. His participation in fantasy baseball demonstrates his commitment to franchise and fan-based media. Mark typifies the expert fantasy baseball player Levy (2005) describes in his research, someone who grew up collecting baseball cards and playing versions of *Strat-o-Matic* statistical simulations.

Mark described elaborate strategies for all phases of the game play, from draft preparation to daily management. Mark still remembers and laments the poor choice he made in the first player he ever drafted. Additionally, Mark described specific strategies for improving his game play. Some of these strategies are common heuristics that experienced fantasy baseball players know such as not using pitchers who pitch in "hitter's parks" or choosing the "stars and scrubs" draft strategy. Other strategies are unique to his league's game play such as his analysis of the way money is spent in his league's auction draft. Mark discussed the importance of knowing the

other team owners in his league and attending to their strategies as a way of managing his own team. As an example, he describes the way he strategizes playing against another team in his league, Hungry Man:

I'm probably not gonna beat him with my pitchers because he's always gonna have tough pitchers, but he always drafts poorly with hitters. So, knowing that I can kinda go in and I'll play three relievers that week that will keep my ERA low and hopefully I can steal one of those pitching categories from him and sweep him with the hitting.

Mark displays the kind of knowledge and skill around fantasy baseball play that is typical of expert practices in a content domain, including possessing a wellorganized body of content knowledge that can be easily and flexibly retrieved for use in the appropriate contexts (Bransford, Brown, & Cocking, 2000). Mark describes accumulating a wealth of player knowledge during his previous 6 years of fantasy baseball play; he claims he can give a rough statistical estimate of approximately 300 players, and he answered the player content questions on our survey correctly in a short period of time. Additionally, Mark is able to use this knowledge flexibly; he describes the draft auction as an exercise in flexibility as the overall knowledge of his league has gone from novice to expert. He uses his player knowledge and knowledge about his fellow fantasy owners to assess how he can draft a dominant team.

Discussion

"Fantasy" as a Third Plane of Activity

The "planes of activity" metaphor illustrates the different dimensions of fan and fantasy activities. The basic plane of reference is the primary activity around which fandom is organized. In the case of fantasy baseball, the primary plane is Major League Baseball. The second plane of activity describes the traditional activities of fandom. Fans follow the Major League Baseball games, buy merchandise, listen to the radio, and discuss the outcomes and statistics of players and teams. The activities of the fandom plane are essentially dependent on and derivative of the primary plane. Fanfiction and modding activities as described by Jenkins (2006) and Black (2006) also exist within the confines of the secondary plane, as fans refashion previously developed primary plane characters, themes, and narratives into new stories and products. These two planes capture many of the contemporary fan cultural practices.

The third plane of activity describes competitive fandom activities in which fans participate in games that, although dependent on the characters and interactions present in the primary plane, provide opportunities for fans to compete within artificial constraints derived from the primary plane. This third plane of activity describes the types of participatory practices found in the Japanese "media mix" card and videogames such as Pokemon (Buckingham & Sefton-Green, 2004; Gee, 2004), Yugioh, and Hamtaro (Ito, in press a, in press b). As with traditional baseball fans, Yugioh fans engage in secondary plane activities through a variety of media, including collecting a large body of content knowledge about the game characters. Ito (in press b) describes fan activities as a "porous membrane between the real and the virtual," where, as in traditional baseball, kids collect and trade cards and the other in-game characters. However, both Yugioh and fantasy baseball share an additional dimension-games allow players to compete in terms of the primary plane characters, themes, rules, and narratives. Yugioh card games and fantasy baseball allow fans to become players through participating in a shared game space.

The success of the third plane game space seems to depend on two key features: (a) the degree of verisimilitude between measures of success in the primary plane and the fantasy plane and (b) the degree to which players can use secondary plane fan knowledge and practices to gain competitive advantage in the fantasy plane game. The measures of success must have enough overlap with the primary plane activities to allow players to virtually participate with a constrained version of primary plane activities. Yugioh game players, for example, are permitted the kinds of moves, spells, and strategies that lead to success described within the primary narrative, and these moves are quantified in game play to measure the relative success of individual moves. Fantasy baseball leagues track the statistics that actually count toward success for Major League Baseball games and players. Creating a playable game requires emphasizing a specific, constrained set of measures from the primary plane that serve as the quantifiable outcomes for the fantasy game. Focusing on statistics, for example, allows fantasy baseball players to engage in game play with no risk of getting hit by a pitch or suspended for steroid abuse.

The success of fantasy game play seems also to depend on players' ability to use secondary plane fan knowledge and practices to competitive advantage in the fantasy plane game. The ability to use fan knowledge effectively amplifies fan interest and allows a serious fan (such as The Spiders owner) a chance to prove his acumen in a competitive environment. The transmedia franchise that emerges around fantasy sports sits in this space between the secondary and fantasy planes—drawing on the intense interests of serious fans and framing fan knowledge within the constraints of the fantasy rule systems. The connection between fan knowledge and primary plane activities also helps explain the struggle of the Wrigleyville Nine owner to determine which kinds of fan knowledge would count in fantasy baseball and to explain how the fantasy game could serve as an opportunity to learn more about the activities of the primary plane (as with *Teh Bear Claws*).

The relation between the primary and fantasy plane, on one hand, and between the secondary and fantasy plane, on the other, might explain the relative failure of games such as Fantasy Congress. Fantasy Congress (http://www.fantasycongress .com) allows players to draft a team of legislators, and it tracks categories such as

legislative success, voting attendance, or Maverick Score (votive against party line) as measures of success. Fantasy Congress suffers from a lack of match between shared measures of success between fantasy and primary activities. Unlike in baseball, where there are widely accepted measures of success that can be modified for fantasy play, there do not appear to be consensus measures of success in congressional legislation. It is difficult to tell whether measures such as legislative success actually capture successful congressional participation, and in the effort to construct a fantasy game, the designers seem to have selected things that could be easily measured regardless of whether these measures actually counted toward primary plane success. Furthermore, although there is widespread public interest in congressional activities, there seems to be negligible fan knowledge of legislative success, at least when compared to Yugioh or Major League Baseball. Faced with unfamiliar measures and primary plane characters, Fantasy Congress players must rely heavily on the game's internal rating system to select teams of legislators. However, just as *Teh* Bear Claws used the fantasy baseball game to acquire more primary plane knowledge, the Fantasy Congress game provides an intriguing direction for players to develop more detailed knowledge of legislative processes and outcomes through fantasy game play.

The sheer size of the fantasy baseball market is beginning to influence primary plane activities as well. Prior to the exploding popularity of fantasy baseball, Major League teams had been known to make changes to their franchises to appease fans, such as moving their outfield walls to make home run hitting easier, creating more exciting games. Fans' desire to follow their favorite teams' games live has prompted Major League Baseball to offer a live audio feed of all games on their Web site. Now the fantasy plane of activity is beginning to influence the primary activity as well. We discussed how Fenway and other Major League ballparks have begun displaying the WHIP statistic on their scoreboard, a direct result of the interest in individual ball players' more esoteric statistics. Additionally, mainstream sports media outlets such as ESPN have begun incorporating fantasy segments into their coverage of major league sports, particularly baseball and football. Finally, as Carol's case shows, participation in fantasy activity can feed fan activity; as Crawford (2004) hypothesized, Carol is becoming a baseball fan, and acquiring knowledge of how baseball is played and the relationship of statistics to baseball, through her fantasy play.

Knowing Players vs. Knowing Teams

One distinction that may be trivial in fandom but crucial to fantasy play is the difference between being a fan of a team versus being a fan of players. As Dylan points out in his interview, the statistics that matter in fantasy baseball are those of individual players; because a fantasy owner has players from across multiple teams, the statistics accumulated by each player are independent of one another. To compete in fantasy baseball, an owner must be invested in individual players' accomplishments rather than the overall performance of a team. This again distinguishes the plane of fan activity from the plane of fantasy activity; for the most part, though fans may have favorite players, they likely root for their favorite team. In fact, for many fans, their favorite players play for their favorite team. Fantasy baseball requires a deep knowledge of, and the capacity and desire to follow, the statistics of many individual players over the course of time. In Carol's case, she purposefully drafted many players from one team for her fantasy team to simplify the task of tracking players. This has both allowed her to follow real baseball by rooting for the Red Sox and fantasy baseball by using the Red Sox as her surrogate team. Because of this, she has become attached to "her players." When a player gets injured, she says, "It doesn't upset me because I don't want to move them, it upsets me because I'm like, 'that's my boy!' I'm really attached to my guys." She has even begun reading her favorite player's blog faithfully: "Even if I don't understand what he's talking about, here's this sports guy who's so on top of his game, but he still goes home and blogs for people. That's so cool to me."

As an expert player committed to competitive fandom, Mark discussed the importance of acquiring knowledge about individual players. To be competitive in an expert league, player knowledge extends beyond the marquis players to up and coming players and even players who have not yet cracked the major leagues. But it is more than knowledge of players that Mark describes as part of his fandom. He talks about developing "player crushes" and developing an "odd cyberfidelity" to certain players. Unlike Dylan, who has no interest in individual player statistics, Mark will follow players across multiple seasons or hang onto a player who is underperforming because he believes that player will come through.

Parallels With Expertise Research

Our work constructing player profiles within the competitive fandom framework parallels research on the difference between expert and novice fantasy sports players (Levy, 2005; Smith et al., 2006). For example, Smith et al. (2006) describe the differences between expert and novice strategies in choosing players for fantasy basketball teams. Novices employed strategies generic to all fantasy sports, including choosing players they recognized or players from teams they liked. These strategies were no different from the ones employed by *Teh Bear Claws*. Experts in Smith et al.'s study used basketball-specific strategies such as examining players' propensity to be selfish, whether a player's team is likely to get blown out and therefore rest their star players, and whether a team might play back-to-back games and therefore have tired players. Mark also employed fantasy baseball–specific strategies in discussing his game play, such as an emphasis on drafting strong hitters over strong pitchers, knowing that it is possible to pick up pitchers throughout the season.

Another mark of expertise around competitive fandom is how players understand the concept, "checking their team." Every person we interviewed used this phrase to describe the management work of fantasy baseball: what they do with their team on a daily basis. How they described this work, however, varied greatly with their position in the competitive fandom framework, where expert players like Mark could elaborate the concept of "checking" his team in-depth. Mark stated that he "checks" his team six to seven times per day, even when no games are being played. When we asked him to elaborate, he discussed in-depth the process:

I learned you have to be on top of injuries, you have to be on any kind of player developments because they can really impact your team. . . . I'll pull up my team page. I'll go through and I'll read any of the player notes that have happened from the night before. I'll look at my pitching match ups for that night if I have a pitcher going. I'll cruise the waiver wire a bit.4

Implications for Education

Competitive fandom is a framework for describing the way that fantasy baseball players engage with fantasy sports content. However, we believe this framework is applicable across a variety of content areas and has the potential to serve as a "designed experience" (Squire, 2006) for learners. As we have discussed throughout, there are other content areas that have tried to apply the competitive fandom framework from pop cultural phenomena such as Survivor and Fantasy Fashion League to academic content areas such as Fantasy Congress and Fantasy Supreme Court (www.lawpsided.com/contest.htm). None of these other fantasy-type competitive fandom environments are as successful or as notable as fantasy sports. The reason for this, we believe, is rooted in these other environments' lack of fidelity to the competitive fandom framework.

Most importantly, content areas such as Fantasy Congress do not have a clear set of criteria for what matters in the game. In Fantasy Baseball, a batter is judged by how many runs he scores, a pitcher by how many batters he strikes out. In Fantasy Congress, a Congressperson is judged by how many bills he or she introduces and how those bills fare through the lawmaking process. It is unclear whether this is the key measure of success for a Congressperson; it is certainly not what is publicly tracked. Additionally, players do not have the capacity to adjust the rules (as can be done in any fantasy baseball league) to construct a series of categories players find more reflective of what counts in determining congressional success. This makes investing in the competitive gaming aspect difficult to accomplish.

As a corollary, Fantasy Congress is not accompanied by the transmedia complex (Jenkins, 2006; Lemke, 2006) that fantasy sports enjoy. Although makers of fantasy sports media including magazines and Web sites are primarily interested in earning a living, novices also benefit from the existence of these media as a way into understanding the game and build player knowledge. A fantasy baseball magazine typically lists 3 years' worth of cumulative statistics for every Major League player, as

well as an estimated auction value and some notes on how this player is likely to fare in the upcoming season. Absent the transmedia complex, novice players have drastically fewer ways into the fan cultural practices and competitive gaming techniques required for play. Games like Fantasy Congress seem to suffer from this challenge. Continued research on successful competitive fandom franchises like fantasy baseball will allow us to delineate these and other core design principles for the construction of competitive fandom environments for learning.

Finally, competitive fandom-style learning environments have the potential to provide contextualized settings for learners to engage with algebraic and statistical math content. Nasir (2000) found that youth who struggled in math classes and also played basketball were able to solve algebraic word problems correctly when these problems were applied to their basketball game play. Smith et al. (2006) proposed that the connection between math skills and the context in which these skills are used is part of a growing tradition of researchers who understand the contextual nature of learning and that thinking about fantasy sports as sociocultural contexts is not that far of a leap. Extending Smith et al.'s work, we find the context of a fantasy baseball league to be an ideal setting for learners to engage with complex content in an extended, intense, and fun way. They point out the complexity of resource allocation in this context in that the game is not won by finding the one best solution, but rather, there exist multiple solutions with different affordances and constraints, known mathematically as "preferential choice problems" (Smith et al., 2006, p. 348). Competitive fandom learning environments such as fantasy baseball provide participants with a rule-based structure to engage with a large body of content knowledge around specific goals that become more complex over time. And as Mark commented, "I just really like playing it. I think I'll do it for the rest of my life."

Notes

- 1. Despite this generally accepted origin, Walker (2006) points out that Okrent derived the rules to the game from a college professor of his who had been playing a simplified version since the 1960s, and Levy (2005) claims the advent of fantasy football occurred in the 1960s.
- 2. The term sabermetrics originates from the statistical research strand of the SABR, whose mission is "to foster the study of baseball past and present, and to provide an outlet for educational, historical and research information about the game" (www.sabr.org).
- 3. This is a feature of the Yahoo! Fantasy Sports Web site that allows players to post short messages designed to intimidate other players.
 - 4. This is a list of available players in a given league.

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Erica Rosenfeld Halverson is an assistant professor of educational psychology at the University of Wisconsin–Madison. Her research focuses on the relationship between identity development and literacy for marginalized youth. Specifically, she studies digital media spaces where youth engage in identity development including filmmaking and online gaming. In addition, she also explores nondigital learning spaces where youth address issues of identity through the telling, adapting, and performing of personal stories. She is a member of the Games, Learning, and Society research group.

Richard Halverson is an associate professor of educational leadership and policy analysis at the University of Wisconsin–Madison. His work aims to bring the research methods and practices of the learning sciences to the world of educational leadership by exploring how to access, document, and communicate the practical wisdom of school leaders. He has developed his interests in the role of technology in education and leadership by pioneering research and design methods to communicate representations of expert instructional leadership through Web-based media. Recently, his collaboration with the Games, Learning, and Society research group has enabled him to investigate how videogames point to the next generation of multimedia environments for professional learning.