

In Polite Company: Rules of Play in Five Facebook Games

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ABSTRACT

Applications developed for the popular social network site Facebook frequently take the form of online games, but designers need to consider the conventions governing politeness, aggression, reciprocity, and obligation carefully in both online and face-to-face communities when structuring the rules of game play in the context of highly formalized and conceptualized social networks. In particular, the combination of egalitarian mechanisms for “friending” across generational and class lines and extremely hierarchical systems of ranking on leaderboards among particular cohorts can make it a challenging environment for creating sustained and synergistic game play.

Categories and Subject Descriptors

K.4.0 [Computers and Society]

General Terms

Design, Human Factors, Theory

Keywords

Computer games, social networks, Facebook applications.

1. INTRODUCTION

Unlike other forms of interactive and social digital entertainment, Facebook applications tend to have relatively simple graphics that do not attempt to represent the navigation of 3-D space or spatial experiences associated with physical embodiment. Some games on Facebook differ little from the traditional card games or board games that inspired their design. Yet, as Alison McMahan has pointed out, it is “social realism,” which structures “organizing rituals and ceremonies,” that is often more important than “perceptual realism” in creating and sustaining an engaging game experience [1]. Furthermore, Amy Bruckman has argued that Facebook is uniquely positioned to give participants a sense of “virtual reality” because it is so central to the daily practices of computer-mediated communication for teens and young adults [2].

However, not all Facebook applications are successful in attracting large numbers of users. In June of 2008,

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VisualDXHealth and the Chicago-based online media firm Blueeye announced the launch of a new Facebook application: *Patient Zero*. A month later there were only fifty-nine active users of the application, and it seemed clear that this “serious game” intended to educate sexually active young adults about the dynamics of the next possible pandemic was perceived as not sufficiently “fun” and therefore unlikely to attract new members or sustain the interest of those who had joined out of initial curiosity or responsiveness to the message of consciousness-raising about HIV/AIDS or similar medical crises.

What made the *Patient Zero* game such a failure? After all, there were already a number of successful Facebook applications that used the infection metaphor as a way to draw players into niche communities where other Facebook “friends” would be playing the same game. Games about zombies, vampires, werewolves, and slayers had attracted up to a hundred thousand active users at any given time. These games used what were literally viral strategies for recruiting new members by deploying a variety of disease-related behaviors quite explicitly in game worlds: attacking, infecting, transmitting, aggregating, and competing were all modeled as desirable moves in these movie-monster games.

Some of the failure of *Patient Zero* can be explained by the nature of the rhetorical appeals for a game in which “you gain points by creating, transmitting, and vaccinating viruses” [3]. Several times the information page makes clear that answering multiple-choice style questions will be key to game play, since the player will “create a virus and power it up by answering a series of questions related to infectious diseases” and then be vaccinated “against viruses in the clinic by answering a series of questions” [3]. Lacking its own original puzzles for problem-solving, *Patient Zero* would have little of what Raph Koster and other designers would describe as formalizable “fun” [4].

In addition, promoters tried to make the application sound similar to the soon-to-be-released *Spore* game from Will Wright in ways that would have raised skepticism among already doubtful audience members. Players were supposed to be both in the game and above it, since users would have God-like powers over their virus and could watch “the evolution of your creation.”

Pitches like following generic slogans probably also sounded too hackneyed: “Competition and creativity are key elements of Patient Zero, but knowledge and curiosity to learn are what power it” [5]. To make matters worse, players complained on discussion boards that they were not getting specifics about how to “win” the “free prize” promised in the “advertisement.” Others were speculating that the project was in reality a “marketing campaign that failed badly for the new movie.”

2. POSSIBLE PITFALLS

2.1 Positive and Negative Politeness

It is useful to remember that Facebook is profoundly about “face” in the precise sociolinguistic sense for which politeness researchers apply the term to observable phenomena. Regular users of this particular form of social software are highly concerned with maintaining face and are keenly attentive to all aspects of how self-image is related to the perceptions of others and how individual prestige is evaluated by group norms. Unlike the Harvard *Freshman Register*, the print artifact from which Facebook appropriated its nickname, in which static black-and-white photographs were archived in its pages and then annotated by others by hand, this combination collaborative hypertext and online community facilitates active image management by social subjects who can comment on their own profiles and change the information presented there.

In their classic work on politeness, Brown and Levinson note that there is both “positive politeness” and “negative politeness” and that it is important to avert so-called “face-threatening acts” that could harm someone’s social status in a given community. These politeness researchers advise that the safer strategy is generally negative politeness, such as avoiding constraining another person’s freedom of movement or distracting the person from his or her personal affairs, rather than positive politeness, such as paying a compliment or giving a gift, which could easily backfire. They claim as a general principle that “it is safer to assume that H prefers his peace and self-determination than he prefers your expressions of regard” [6].

Asking a Facebook friend to add an unwelcome application potentially violates the rules of negative politeness, and the invitation to engage in these transactions can only be safely extended if it is certain that the person is willing to participate in what Douglas Thomas has described as “communities of interest” in which discursive actors willingly participate in “networks of practice” and enter in to relationships that may have opportunities for mutual learning and greater social proximity [7].

Furthermore, people might have added others to their online contingent of friends who were already hesitant about the relationship. Because ignoring a friend request can be taken as impolite and users of the software usually aspire to have large social circles, those with very different positions in social hierarchies may find themselves in relationships that assume equal status. As Ian Bogost has noted, the interface for managing friend acceptance is poorly designed for teacher-student relationships or between others with asymmetrical relationships [8]. Therefore, Facebook games can be a source of irritation if the online relationship is already strained.

This discomfort can be heightened when the terms of friendship are affected by new hierarchies that are imposed by structures of winning and losing in Facebook games. A social superior who has consented to the leveling involved in friending and being subsequently initiated into game play may feel estranged by schemes of rankings or leaderboards, which are essential components of many kinds of game play. Facebook users may even add an application suggested by a friend without being aware that there is a competitive component to the program. For example, the popular music-suggestion application *iLike* also has

a series of online quizzes based on sound clips by which players can be ranked on their music knowledge.

2.2 Implied Social Contracts

Although the structure of many computer games is designed to tolerate and even encourage different types of transgressive behavior [9], the “magic circle” in which game play occurs separate from other social transactions may not be as clearly delineated in online environments. Although social network sites are frequently characterized as “third spaces” that are supposed to be very different from the restricting spheres of home and work, recent research indicates that rules governing conduct frequently correlate strongly to those dictating interactions in face-to-face relationships. As danah boyd explains, “What makes social network sites unique is not that they allow individuals to meet strangers, but rather that they enable users to articulate and make visible their social networks. This can result in connections between individuals that would not otherwise be made, but that is often not the goal, and these meetings are frequently between ‘latent ties’ (Haythornthwaite, 2005) who share some offline connection” [10]. In other words, communities of interest are less likely to be defined by membership in Facebook groups or games than by offline forms of affiliation.

Thus, even after establishing that two affiliated individuals have willingly added the same application, making certain kinds of game moves, which are taken to be excessively aggressive or disingenuous, can threaten existing social relationships. If the other player is a social superior or an underling, the consequences of misinterpretation of a game move can be particularly serious, since the other person is likely to take what appears to be an illegitimate move as a sign of disrespect or disregard. Furthermore, disputes about seemingly broken rules can not be easily arbitrated by neutral parties, as they would be in face-to-face matches or tournaments, since outcomes are largely pre-determined by computer algorithms that are divorced from the interventions of human agency.¹

2.3 Reciprocity and Obligation

Moreover, even if two individuals seem to be members of the same community of interest, it is possible for one party to offend the other by insisting that the other party make a game move promptly or at an inappropriate time. It is also possible that those who have unequal resources at their disposal will resent being asked to make a particular type of move, even if the other player assures them that the results will be mutually beneficial.

In anthropological terms, engaging in certain kinds of social transactions establishes expectations that those exchanges will continue to be reciprocal. As Jacques Derrida explains, using the work of French sociologist Marcel Mauss, “Mauss reminds us that there is no gift without bond, without bind, without obligation or ligature” [11]. Derrida extrapolates on this concept to make several corresponding associations about debt, credit, faith, and desire that can also be applied to electronic exchanges. Therefore, even giving another player certain kinds of “help” in the form of

¹ Developers do sometimes intervene in game play to introduce new features or to compensate with game credits or currency when there has been a programming malfunction.

advice or the donation of virtual objects can be taken as an imposition.

2.4 Privacy and Publicity

Because computer users have a choice among social network sites, groups of individuals often gravitate to Facebook because they perceive it as a site where one can avoid certain forms of social contact, because of its “walled garden” interface that seems to shield specific kinds of private information from public view by restricting access to those inside one’s membership network, circle of friends, or group that can see more than a “limited profile.” It also benefits from the prejudices of class cachet, because its membership is founded on a base of college-educated individuals [12].

Because adding applications involves consenting to click-through agreements, those who participate in Facebook games may eventually resent sharing their private data with others who may have more than one degree of separation and with corporate entities who may market products or services to them through targeted advertising that may offend or annoy. Siva Vaidhyanathan has argued that Facebook users are far more defensive about their privacy than is commonly assumed and that the fact that privacy has a relative rather than absolute definition for many Facebook users has been widely misunderstood as a license for impositions by businesses and media interests that invariably generate revolts among frustrated users [13].

2.5 Suitability of Genre

Finally, developers may alienate potential user communities if the logic behind making something into a Facebook application in the first place is unclear, particularly if the same level of game play could be easily achieved by linking to a free-standing web page with interactive content. If membership, affiliation, or camaraderie are unimportant, it is unlikely that others will be willing to encourage their friends to surrender virtual real estate on their profile pages for an application that does little to cement social relationships. In the case of the recent *Pork Invaders* homage to the *Space Invaders* game that was created by the presidential campaign of John McCain, the fact that it functioned perfectly well as a stand-alone single-player Flash game made incentives for adding the *Pork Invaders* Facebook application with the same functionality particularly lacking. Despite considerable publicity for the game, *Pork Invaders* reports less than a hundred daily active users.

3. SCRABULOUS

One of the most popular Facebook applications, which claims to have over a half-million regular users is *Scrabulous*, the online version of the board game Scrabble. Although not obvious to most players, adding this Facebook game could be taken as transgressive behavior involving a pirated commodity, because *Scrabulous* faces an ongoing legal battle over ownership of intellectual property because Hasbro, the owner of the corporate trademark and producer of the analogous physical game, see the appropriation of the rules of their game in an online environment by *Scrabulous* creators Rajat and Jayant Agarwalla as an act of infringement, much as the estate of Guy Debord has challenged Alex Galloway’s rights to create the “massively single-player”

Kriegspiel using the French Situationist’s prototype for a physical board game with face-to-face moves.²

Part of the popularity of *Scrabulous* may relate to its low threshold for participation, because the rules of the game are already known to many players long before they join Facebook, and assembling acceptable letter combinations does not even require that a given player be a native speaker of English, as a recent documentary makes clear [14]. Additionally, because games take place in a more private two-player context, new players may be less inhibited by fears of public shame and the surveilling gaze of others. Although *Scrabulous* allows players to choose between TWL and SOWPODS rules, these dictionaries and rule sets have long histories of negotiation and adjudication from live tournaments, and therefore players are more likely to feel that the game’s algorithm generates fair and just results.

However, given the large number of online Scrabble solvers, it is very easy for players to open a new window on their computer screens to see possible combinations that are generated mechanically from input based on the contents of the player’s letter tray. Mia Consalvo has argued that essentially all players cheat in online games and that gaining advantage through cheating is not necessarily purely selfish behavior because there are communal practices that are maintained in which knowledge of cheat codes and walk-throughs may be shared among players to facilitate game literacy and the forging of social bonds [15]. Nonetheless, those who are new to online games and may only know the conventions of the board game played without assistance may feel like their trust is being abused when they detect cheating. *Scrabulous* players may fill out the comment form in the dialogue functions of the game to note the arcane nature of a given word or to express speculation about cheating if it seems improbable that the other player would already know the term, based on his or her vocabulary in other situations.

As with all language games, players may also take offense at what they see as the meta-conversation taking place. In other words, if the other player seems to be making word associations that could be taken as inappropriate, it could cause the game to be suspended or discourage players from engaging in future games. In films, this has been used as a stock joke, when crossword puzzle-solvers supply words that may be taken as insults or erotic come-ons. Since *Scrabulous* tolerates inclusion of a number of profane, scatological, or sexual words, based on its pre-programmed dictionaries, players could easily shock one another. For example, among words that could be taken to be obscene, the word “dildo” is allowed in the TWS dictionary. Without the paralinguistic cues that are present in face-to-face games, it can be difficult for players to know when they have overstepped social boundaries.

4. ZOMBIES

Unlike *Patient Zero*, *Zombies* has managed to facilitate a much more sustained online community that even involves subcultures

² Discussion boards and wall posts in certain other Facebook games show visitors airing concerns about copyright and possible infringement. For example, in the case of *Pork Invaders*, fans of the original *Space Invaders* game indicated their disapproval of the McCain campaign’s appropriation of the name and game mechanic of their beloved game.

who indulge in costumed play or cosplay in which players change their profile photos to represent the seemingly undead with ghoulish make-up, torn clothing, or displays of other kinds of fan behaviors. With over fifty thousand daily users, *Zombies* allows players to accrue points in two distinct modes of aggression: recruitment by “biting” or one-to-one combat by “fighting.” A player is invited into the game when he or she is “bitten” by a friend. If the application is added, players are encouraged to bite non-participants in order to bring more people into the game. Much as a pyramid scheme rewards early adopters, those who add the application first in their social circle are more likely to build larger “armies” of zombies. Once initiated, players can also fight each other as they aspire to different ranks that range from the novice “Ensign Zombie Newbie” to those in the “Top 1000 Zombies” who eventually reach the pinnacle of “Zombie God.” They can also fight those playing as different castes of monsters that use separate scales to measure their relative strengths. Taking on werewolves, vampires, and slayers whose points represent different systems of cultural currency is worth more than challenging other zombies.

Of course, the language of the game celebrates verbal as well as physical aggression and the denigration of those who lose the zero-sum game of fighting or who lack the social capital to garner large armies of friends that they have bitten who have consented to add the application and then go on to bite and initiate others. Players are repeatedly goaded to “bite some chumps” each time they visit their profile pages. If a player takes on a highly ranked opponent and loses, automated messages underscore the humiliation with gloating phrases such as “_____ just smacked you upside your FACE. Your FACE. Ouch!” If the player wins against a more junior combatant, messages may say that you “taught” the person “the meaning of pain.” Because the player can not control the utterances generated by the application, he or she may unwittingly seem to be a party in a form of Internet flaming that may offend first-time combatants. Furthermore this exultation at unequal combat and asymmetrical warfare does little to promulgate conventional dictates about fairness that traditionalists may hold dear.

The viral structure of the game has also been capitalized on by corporate marketers who used *Zombies* to promote the zombie-themed film *Resident Evil* and to take advantage of what Henry Jenkins has called “transmedia” storytelling [16]. Of course, players are frequently suspicious of games with a marketing agenda, because they see them as driven by something other than the social relationships of players and the rule sets of the game, even though these “advergames” rarely tout messages that are fully developed forms of relevant message-making, in the didactic forms that Ian Bogost has described in the book *Persuasive Games* [17].

5. PARKING WARS

Parking Wars was also created to promote a one-to-many media product in a traditional entertainment genre, a reality television show that starred meter maids and tow truck drivers from the A&E network. In the Facebook application that bears the same name, players all have a street with five parking spaces with signs that specify open parking, no parking, or parking only for cars of a particular color. They also have cars, which they can not park on their own street.

Players may gain points by ticketing other players on their street or by moving their own cars that accrue points the longer that they stay still. The longer they stay in a parking spot that was initially deemed legal, the greater the chance that the sign will change and render them subject to ticketing by the street’s owner. As players advance to new levels, which start at “Parking Amateur” but may devolve to “Parking Disaster,” they receive can receive more cars, at least at the lower levels. This situation allows more opportunities to gain points and diversifies the color of their automobile fleet to improve access to more spaces. But this leveling-up also requires more frenetic and attentive car re-parking since cars can exceed available spaces. Players may also use their points to purchase luxury cars to increase the size and quality of their fleets beyond the six cars that they receive through leveling up. These luxury cars have special properties, such as allowing the player to park in no-parking zones, ticket those on the streets of others, or park in front of signs of more than a single color. They can also accrue points more rapidly than other cars or give points to other cars parked on the same street. In addition to the main scheme for ranking, players can earn badges such as “Quick Draw” or “Untouchable” for managing to park or ticket under particular constraints or for executing unusually virtuoso sequences or patterns of cars.

The time-sensitive nature of the game is often not apparent to new players, because parking signs showing a given parking requirement may remain unchanged for hours. Thus, at first *Parking Wars* may seem like a game in which moves don’t require awareness of synchronous interactions with other players. Soon, however, experienced players learn to move their cars into risky regions on their friends’ streets based on the time zones in which other players reside. For example, they might expect a player to be asleep or at work at a given time and therefore not likely to be online and playing games; predictable meal times or scheduled leisure activities would also be times for parking gambits. In this way, knowledge of the work and leisure habits of fellow players and consciousness of the schedules of their days in relationship to computer-mediated communication can serve to advance one’s ranking in the game. In this way, certain forms of seemingly private information about online and offline behaviors become relevant to game success.

Unlike *Zombies*, where infecting friends who are actively infecting others improves the total point count,³ having a large number of friends who are inactive players but who have added the application in *Parking Wars* serves to create more areas for parking without fear of ticketing. Thus, players have incentive to encourage friends to add the application grudgingly but not to engage in play in order to increase the number of possible safe havens for parking.

Although the metaphor of punitive law enforcement seems to be a sign of overt aggression the actual social dynamics among game players may prove quite different. In my own experience playing *Parking Wars*, the comment space that allows one-way communication with other players after ticketing often contains messages that are very different from the automated phrases of

³ Having a large number of inactive friends could be to the player’s advantage in *Zombies* if the player chooses to regularly attack these “weak” dormant players to gain points.

violent triumphalism generated by *Zombies*. For example, players often apologize to those they ticket, or they may use this feature as a form of channel-checking. Messages of congratulations, greetings, and welcome may be exchanged in conjunction with the giving of virtual tickets.

Although *Parking Wars* may seem to be a classic zero-sum game of correction and retaliation, there are also ways to play for mutual advantage or to play without exacting tribute from others, particularly since one can advance in the game, albeit more slowly, while giving no tickets at all. For example, players may make informal pacts among themselves not to ticket each other, so that players can park on each others' streets and accrue points without fear of retaliation in what Michael Mateas has described as a "prisoner's dilemma" scenario in which the first person who violates the contract by ticketing the other one destroys the structure of mutual benefit.

6. PACKRAT

The rules to *PackRat* are relatively elaborate in comparison to most other Facebook applications. Like *Pokémon* or *Magic the Gathering*, players seek to acquire large numbers of collectable cards that also have distinctive artwork, point values, taxonomies that determine groupings, and implicit economic worth that is determined by complex constructs of abundance and scarcity that require time on task playing the game or access to knowledge networks on sites like the PackRat Recipe Wiki or PackRaddicts to assess. Instead of being traded equitably with friends, the cards are generally "stolen" from others, although the player must discard one of the cards in his or her own pack – of roughly equal or lesser value -- to acquire one from the pack of another players. Decision-making about stealing a given card by making an exchange for another card is aided by a spectrum-style meter that indicates the probability of success for the move.

Players can purchase "locks" that require would-be thieves to devote time and risk points playing difficult mini-games. They can also "buy" cards with "credits" at special "markets," many of which are only open to more experienced players. They earn their credits by clicking on badges that seem to appear randomly as they cycle through the "packs" of their friends looking for desirable cards to steal. When the player has either five identical cards or five different cards from the same genus in his or her pack, they can be "vaulted" in a collection that is permanently protected from theft; at this point they also earn "points" that allow them to rise in the rankings. Particularly obsessive friends may have millions of points and may have hundreds of cards in their vaults.

Like the popular card-based games among pre-adolescents, *PackRat* involves complicated literacy practices as players learn the Byzantine rules of the game, often by trial-and-error. It also engages players in complicated forms of game capitalism in which the acquisition of status goods requires prodigious amounts of knowledge about specific rules of play and value systems [18]. Those who are particularly engaged with this community of interest may choose to publicize certain "recipes" that allow players to combine cards to generate cards that can not be acquired from the markets or the packs of others. The underlying algorithms of the game dictate the components of these recipes but the contents of the recipe are not posted on the Facebook *PackRat* site itself.

The roster of "friends" whose packs can be seen may also include cartoonish non-player characters, such as "Ratina Triumph" or Mark "Zuckerrat," but these characters do not participate in the channels of communication. Like *Parking Wars*, the channels of communication are only open when the player has won something from another player. The game makes the channel available for players to "talk some smack" when they have managed to steal the card of another player. However, this channel is often used for advice about how to improve that player's point count or level up more efficiently and thus serves often altruistic ends.

Although the rhetoric of the main page of the game seems to promote stealth and covetousness, in actual practice PackRat players engage in considerable information-sharing. Channels of communication may also may be used for seeking agreement that certain forms of theft should be prohibited for the general good, since they might lead to cycles of pointless tit-for-tat retaliatory stealing that prevent both players from vaulting items and accruing points..

7. (LIL) GREEN PATCH

Facebook also makes available a number of games that are intended to serve educational purposes or turn supposedly wasted energies expended in game play toward real-world productive ends. Unlike *Patient Zero*, many of these applications do not require unwelcome skill-and-drill testing to prove that the player has reached particular benchmarks of knowledge about the specific facts of the issue that could then be deployed in concrete public debate, outreach to others, or research activities. The aim of many of these games is fundraising for social or environmental causes rather than creating truly persuasive games in which the rule set simulates interactions of which the audience may be unaware. Much like *Free Rice* and a number of online games outside of the Facebook environment, the *(Lil) Green Patch* application claims to capitalize their venture by exposing players to the advertising of their sponsors in an economy of attention that also intersects with a reputation and membership economy.

Over seven hundred thousand active users are participating in Facebook's *(Lil) Green Patch*, which promises to help reverse the worldwide environmental consequences caused by large-scale deforestation as the player acquires more area of "rain forest" that is "personally saved" by sending virtual plants to the "green patches" of others. A typical electronic message in the game that accompanies a gift of plant material may read: "Here is a Pansies plant for your (Lil) Green Patch. Could you help me by sending a plant back? Together we can fight Global Warming!" The more one plays, the greater variety of potential gifts. To keep people playing, the game also makes available special and seasonal plants for short periods of time that supplement the variety available based on the player's rank.

In addition to tending one's own patch where the flowers and vegetables can be arranged according to individual aesthetic preferences or obsessive tendencies, one can tend the patches of others by raking leaves, pulling weeds, and feeding pesky vermin. Unfortunately, all of these activities cost "green bucks" and will eventually require regular trips to "Crazy Al's Green Store" to stock up. Players can also buy gifts that will be temporarily displayed in the gardens of others, although the rituals of generosity differ considerably from the "twinking" described by Janine Fron, Celia Pearce, Tracy Fullerton, and Jacquelyn Morie

in which gift-giving in virtual worlds or MMORPGs is more spontaneous and less determined by the pre-set conventions of the game [19].

This structure of gift-giving may seem to be highly altruistic, both toward other players and toward the planet, but the expectation of reciprocity and the endless nature of the obligation, since being able to send the most rare and coveted plants requires having sent thousands of plants to others first, may trespass certain boundaries of politeness. For example, bolder players may request that a particular plant that they would like to have in their collection be sent back as compensation with their “gift.” This can create a socially awkward situation if the socially expected gifts exceeds the plants that are available, because other player has not advanced far enough in the game to be able to send the desired item. Confessing to not being able to send the requested gift through the communication channel tied to the gift-giving message could reinforce the loss of face created in this situation.

8. CONCLUSION

These five case studies show how Facebook games can cause players to risk violating social norms about aggression, obligation, proximity, and privacy in ways that sacrifice real-world friendships by engaging Facebook friends in play.

Designers should also think about barriers to participation and how games can be made more inclusive for novice players. In particular, Facebook games rely on the participation of people with large numbers of online acquaintances; they serve as large hubs to draw people into the game, but these people also have a disproportionate advantage in almost all of these games: they have larger “armies” of minions in *Zombies*, more parking places to choose from in *Parking Wars*, more potential targets from which to “steal” virtual goods in *PackRat*, and more potential donors and recipients in *(Lil) Green Patch*. This builds strategic advantage into the rules of many of these games and often serves as a disincentive for those who are new to a given social network site or who may simply lack social capital. Without large numbers of social contacts to make play possible, those who are disenfranchised in social network sites are left trying to “bowl alone” [20]. Furthermore, Albert-László Barabási has argued that the power laws and cascading functions of social networks can be subject to seemingly unpredictable outcomes that magnify existing inequities [21].

Some games try to compensate for these inherent disadvantages and provide ways to accommodate players with skill but few people in their online cohort who have added the application: *Parking Wars* gives players “neighbors” who are strangers outside one’s immediate circle of friends, to provide additional places to try parking, but lacking knowledge of their personal habits and dispositions, it is much more difficult to predict their moves. *PackRat* includes a very large cast of non-player characters, but the player may feel disincentive to engage with mere AI functions in an already complex game.

As social network sites expand beyond the base of peer groups in college to include co-workers, neighbors, and family members, the kind of games that would appropriate for a broader range of social relationships requires attentiveness in design. It is also important not to assume that superficially pro-social games will be taken as polite or that games that appear to be anti-social in their premises are impolite, because the rules surrounding interactions

may support emergent play, alternative rule sets, or modes of competitive or cooperative communications that can not be anticipated by those in the initial audience who have yet to actually take part in playing the game.

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