



Leadership in Games and at Work: Implications for the Enterprise of Massively Multiplayer Online Role-playing Games

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Executive Summary

Complex multiplayer online games foreshadow new possibilities for effective leadership and the future of work. An increasingly large portion of game play is collaborative and strategic, and it requires sustained interactions with several players. The engagement of games and the lessons they foster may influence a new gamer generation to expect real work that better resembles the structure of complex play.

This project observed leadership in complex online games to allow a comparison between current leadership models and leadership in the games. We began with a contemporary model of leadership, The Sloan Leadership Model, which defines leadership in four dimensions – Sensemaking, Inventing, Relating and Visioning. The project goal was to see if the Sloan model, and by extension, other traditional models of leadership, need to be changed to account for game play.

Observations included 50+ hours of game play, compiled into 11 movies illustrating different leadership issues. We also included first-hand reports from 6 expert players, 10 interviews with recognized guild leaders, and 171 respondents to an online open-ended survey about leadership in games.

Conclusions include the following: leadership in the games includes all skills currently identified in the Sloan model, but puts a premium on the dimensions of Relating and Inventing. Leadership in the games happens fast, it encourages risk taking, it promotes temporary rather than permanent leadership roles, and there are numerous opportunities for leadership practice. The most important conclusion, however, was that game environments make leadership easier. Critical leadership features in game environments include virtual economies, transparency of metrics, and connection methods for inter-group communication.

We conclude with predictions about the future of games and leadership in the enterprise, including comments about how games will highlight qualities of digital interactions increasingly important for online leadership, and qualities of leadership unique to games.

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In examining the Enterprise of the Future, IBM's GIO 2.0 posed the following question:

“As business becomes increasingly distributed and virtual in nature, what kinds of leaders might emerge and what attributes will they have?”

To answer this question, GIO 2.0 participants suggested that IBM study the qualities of leaders who thrive in environments that contain many of the characteristics of the new business landscape – specifically those that are massively distributed and virtual in nature.

This project is a first step toward an answer to the GIO 2.0 challenge by looking at online games.

I. Project Goals and Background

The goal of the games and leadership project was simple – armed with a representative model of leadership, examine individual and group behavior in complex multiplayer games to determine what aspects of a traditional model, if any, should be reconsidered. Are multiplayer games shaping expectations for new workers about the best methods to lead and collaborate? Do multiplayer game environments offer anything new for leadership in the enterprise? And if so, what technologies, interfaces, affordances, and sensibilities can be borrowed to make enterprise leadership, and overall, the future of work, more effective?

This analysis concentrates on leadership but a larger hypothesis also guides the project: changes in work, and compelling new features of complex games consistent with those changes, may foreshadow new and better work environments. These new ideas apply to leadership but may also be broadly applicable in the areas of collaboration, innovation and business process.

One hundred million Americans played a computer or video game last week, with varying but generally high levels of excitement and focus. Some play was simple shooting, racing or turning cards, and much of it appealed to adolescent boys. But that's not the important story about games and the enterprise. An increasingly large portion of play is complex, strategic, and gender balanced. The average age for online multiplayer games is 30, the average time spent per week is 22 hours, and 7.5M people currently play one title – *World of Warcraft*.

Most relevant to the study of leadership, the online play is collaborative and social. Advancement requires accepting a unique role in a rich game narrative, and it requires joining a team. Achievement accrues over time and decisions have implications for play days and weeks into the future. And players can't win unless their team wins. That fact alone suggests that leadership issues will be part of the story about how games work.

The hours fly by for people engaged in online interactions, stealing time from relationships, television and work, and providing alternative environments to meet people, learn a skill, and even get paid. Could real work ever be as much fun? It may need to be. Young people entering the workforce may show greatest interest in experiences that allow serious interactions to parallel playful ones. A new gamer generation¹ values quick feedback, and opportunities for trial and error. Risk is familiar, failure part of the game, and competition expected, fun and governed by known rules. Successful engagement of new workers – important at a time when cooperation and coordination drive the successful enterprise more than command and control from above – may rest with new technology that facilitates work using the sensibilities of entertaining games. New workers have choices, and like catching flies, there may be more attraction to honey than vinegar.

How can the enterprise be rewired to tap the talents of new workers and to use the engagement of games? Work could be redesigned from the gamers' eye, and that's the perspective we've adopted in this project. What is it like to lead complex collaboration in games? Players want to know the rules, advance frequently, establish partnerships quickly, nurture reputations that are persistent and transparent, and trade assets and time in a marketplace that matches their own objectives with those of their chosen groups. And they want to have fun, not necessarily a constant party, but engagement that creates a sense of flow while pursuing a challenge. What if leading and following at work were more like the games?

The ultimate influence of games may not only be that gamers prefer information work that borrows a game feature, as the Blackberry models the Game Boy or Windows uses 3D graphics. The more important influence is that work can be conducted *like a game*. Designing work in the image of games goes far beyond proposals to use games for learning and training, only to return afterward to familiar ground. Performing serious work as a game constitutes a re-engineering of the human-computer interface, suggesting a third generation of business process and technology that moves workers beyond command lines and the desktop to interactions that parallel the richness of real life augmented by compelling play in ways made possible only by computers.

II. Studying Leadership in Complex Games

While provocative, we should be cautious about the applicability of games to serious work. This story is brand new, and this is the first project we know of that matches game ideas with enterprise interests in leadership. While the promise of a connection is intriguing, the proof will need to come by carefully examining the games and testing borrowed leadership methods. We consider this project a first step.

The strategy for examining games and leadership was both inductive and deductive. Bottom up, we wanted to freely explore the games, guided by expert players, but without preconceptions of what we would find or even what we should look for. But we also realized that game play is so complex that it is almost infinitely describable, so it was also important to be guided by a comprehensive model that is currently used in the real world to evaluate leadership expertise and guide training. In summary, our goal was to roam freely, looking for leadership moments and strategies, but also be directed by a traditional model of leadership when making comparisons.

The next sections describe the model we chose, after a brief review of the recent history of leadership theories.

III. A Brief History of Leadership Models

Like many important concepts in the social sciences, the term “leadership” is difficult to define precisely. In fact, one comprehensive review of the leadership literature concluded that “there are almost as many definitions of leadership as there are persons who have attempted to define the concept.”ⁱⁱ For instance, definitions of leadership have included elements like the following:ⁱⁱⁱ

- Influencing a group toward a shared goal
- Framing reality for others
- Giving purpose to collective effort
- Starting evolutionary change processes

Reflecting this diversity of viewpoints, leadership research has gone through a number of different phases. In the 1930s and 1940s, much leadership research focused on the *traits* of effective leaders. For example, traits found to be related to leadership effectiveness included: a high energy level, self-confidence, emotional stability and maturity, and personal integrity.^{iv} In the 1950s, leadership researchers focused more on the actual *behaviors* of effective leaders, rather than more abstract traits. For instance, this research suggested that effective leaders use behaviors that reflect *both* a high concern for task objectives (e.g., planning, clarifying, monitoring) *and* a high concern for interpersonal relationships (e.g., supporting, developing, and recognizing).^v

By the 1960s and 1970s, researchers moved beyond the simplistic idea that certain kinds of leadership traits or behaviors were always effective and began to embrace a more sophisticated view that different kinds of leadership were appropriate in different kinds of situations. This *contingency* approach focused on determining what kinds of leadership were appropriate in different situations. For instance, one stream of research characterized when different kinds of decision-making were appropriate using rules like the following:^{vi}

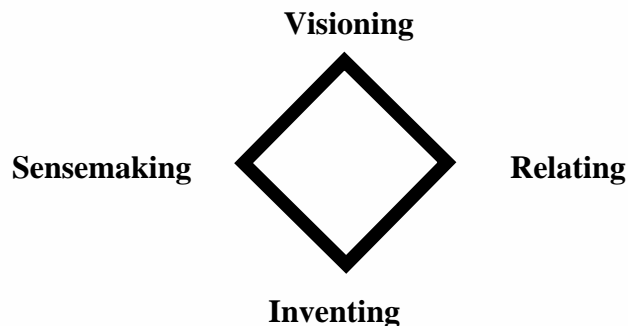
- If the decision is unimportant, and subordinates’ acceptance of the decision is not critical, then an *autocratic* decision is appropriate.
- If the decision is important, the leader lacks essential information, and subordinates’ acceptance of the decision is important, then a *group* decision is appropriate.

In the 1980s, 1990s, and 2000s, leadership research has moved toward more integrative approaches that combine multiple types of variables including traits, behaviors, and situations. For instance, one stream of research focused on a particular type of leadership called “charismatic leadership.” Charismatic leaders, according to this research, motivate strong commitment and unusual effort from their followers by (a) articulating an appealing vision that relates the followers’ self concepts to shared values of the group, (b) communicating high expectations, and (c) expressing confidence in the followers.^{vii}

IV. An Integrative Perspective – The Sloan Leadership Model

The model we selected to organize this project is an integrative model developed by Deborah Ancona, Thomas Malone, Wanda Orlikowski, and Peter Senge at the MIT Sloan School of Management. This Sloan Leadership Model has been described in several publications^{viii} and has been used since 2001 as a basis for MIT workshops on distributed leadership.

The Sloan Leadership Model describes four core capabilities needed for effective leadership: *sensemaking*, *relating*, *visioning*, and *inventing* (see figure below). In general, good leaders have at least a minimal competence on all four capabilities, but no leaders are perfect on all dimensions. This framework can thus be used to help people diagnose their own leadership strengths and weaknesses, and to figure out ways to take advantage of their strengths and compensate for their weaknesses. It can also be used, as we did in this project, to analyze leadership behavior and situations.



Sensemaking

Sensemaking is the ability to make sense of ambiguous situations.^{ix} It often involves creating mental maps, stories, or useful points of view. As Weick points out, there is no one best map of a situation, and there are often an “indefinite number of useful maps.”^x The key to effective sensemaking, therefore, is to create a map or other way of representing a situation that is useful for the people who need to respond to that situation. For instance, Andy Grove, former CEO of Intel, was a quintessential sensemaker. He even wrote a book called *Only the Paranoid Survive* saying that in many parts of business it is essential to be constantly reassessing the competitive environment.

Examples of sensemaking behavior include:

- Using many different types and sources of data
- Not just using existing frameworks; seeing the world in new ways
- Checking interpretations with others
- Trying small scale experiments

Relating

Relating involves developing key relationships within and across organizations. One of the keys to effective relating is balancing what Argyris and Schon call *inquiry* and *advocacy*.^{xi} Inquiry involves the ability to listen to and understand what others are thinking and feeling without imposing your own point of view. Leaders who are good at inquiry are good at suspending judgment and understanding how others moved from data to opinions. Advocacy involves effectively articulating your own point of view, explaining how you moved from data to interpretation, and convincing others about the merits of a perspective. Too often in business, we focus primarily on advocacy, not inquiry, but successful relating requires a good balance of both.

Examples of relating behavior include:

- Trying to understand the perspective of others (e.g., What data and reasoning did they use?)
- Articulating your point of view and reasoning clearly (e.g., What data and reasoning did you use?)
- Building strong relationships with many different kinds of people

Visioning

Visioning involves creating compelling images of the future. If sensemaking is about what is, then visioning is about what could be. Leaders who are good at visioning are good at providing *meaning* for what people are doing and thus motivating people to bring their best selves to the task of fulfilling the vision. Steve Jobs, for instance, is a prototypical visionary leader. When Jobs was trying to convince John Scully to leave his job as CEO of Pepsi to become the CEO of fledgling Apple Computer, Jobs said to Scully, “Do you want to sell sugar water for the rest of your life, or do you want to come and change the world?”

Examples of visioning behavior include:

- Describing a desired future state
- Connecting organizational goals to personal or societal values
- Painting a picture of the future

Inventing

Inventing means turning visions into reality. For leaders, this means creating structures, processes, and other ways of helping people work together and achieve their goals. Terms like “implementation” and “execution” are very similar to inventing, but the term “inventing” implies a creative—rather than just routine—orientation to getting things done. Effective leaders often need to be creative in finding new ways for people to work together and to overcome obstacles. Some great leaders are remembered, in part, for their inventions of new ways for people to work together. Henry Ford, for example, invented the assembly line at Ford Motors, Alfred P. Sloan invented the multidivisional corporate form at GM, and Pierre Omidyar, invented a new way of organizing retailing at eBay.

Examples of inventing behavior include:

- Thinking about who will do what, by when, and how
- Tracking progress and overcoming obstacles
- Not assuming that the way things have always been done is best
- Coming up with new ways of doing and organizing

Model Summary

In summary, the Sloan model identifies competencies thought to define good leadership. Not all leaders, even good ones, may excel at each, but taken together they help define a breadth of skills useful for individuals and complementary skills important for leadership teams. Our next question is whether each of these dimensions can be found in online games, and if they are, what is the relative value of each in defining leadership in that context.

V. Examining the Games

The goal for observation of leadership in the games was to provide a reasonably complete first look at how leadership is accomplished. We know that approximately 15% of players in these games have been leaders at one time or another^{xii}; however, there is no systematic study of how leaders accomplish their tasks. Our initial strategy was to trade quantification for richness of description. At this stage in the research, we were more interested in understanding the breadth of leadership activity rather than asking game leaders to answer specific questions or make observations of known behavior.

1. Game Play is Complex. Describing complex multiplayer games is a daunting task. First, the complexity of play often rivals corporate collaborative tasks. A typical group action (e.g., a raid organized by a game guild) can last up to eight hours, involve 40+ players, require multiple planning sessions (and almost always a website), and all moderated by VOIP audio conferences before and during the action.

2. It's Hard to View the Most Interesting Action. Game play is emergent behavior that happens spontaneously, following no prescribed timing from a game publisher. There are goals that are standardized across all play, but groups form, and action is planned and executed, at a pace and with strategies determined by the players in real time. In other words, you pretty much have to be there to see what happens. For this project, that meant having researchers who were also expert gamers and who could be present in the 3D worlds at the right times and places.

3. Game Action Happens In Groups (or Guilds). The expert gamers on this project also needed to belong to the most successful guilds, and they needed to have enough status in the games to gain access to the most interesting tasks and places. For example, in *World of Warcraft*, you can't observe how someone leads a guild into the dangerous dungeon of Ahn 'Qiraj without at least 40 level-60 players converging simultaneously on the same location with a commitment to spend 6-8 hours on the task. On average, it takes 450 hours for a player to reach level 60, and while they number in the hundreds of thousands, any collaborative action is a one-time event. Compared to traditional media, the users are part of the story rather than passive viewers, and each player gets to experience the journey in a unique way and within different communities.

4. Eleven Movies Capture Complex Play. We examined two major sources of information about game play. The first was unobtrusive observation of complex game actions recorded by “confederate” players who were long-time members of the most successful game guilds. These are referenced here as 11 three- to five-minute “movies” that were compiled from 50+ hours of recorded game play. Taken together, the movies provide a reasonable general introduction to complex multiplayer games. It’s possible to get a feel for the interfaces, communication channels, logistics information, and player roles within each narrative. Several of the movies show long-established game guilds coordinating complicated raids in obscure dungeons.

The video set also serves as a library for references in this project. Where appropriate, we reference the videos by title as evidence for conclusions and to demonstrate different attributes of game leadership. The game and virtual world titles referenced in the movies include: *World of Warcraft*, *Eve Online*, *EverQuest 2*, and *Second Life*.^{xiii}

5. The Movies Represent The Most Complex Play Available. It is important to note that these titles, and especially the play that we examined within them, represent the most complex interactions available in the games. In almost all cases, our data from the games come from situations where there are substantial leadership activities, most often behavior from players who have maximized the levels and abilities of their characters, are deeply entrenched in the online gaming community, are well-positioned in top notch guilds, and are members of the decision-making bodies that define group policy and manage day-to-day operations. There is plenty of game play accomplished by newer or different characters operating at lower levels in the games and without the complex group action seen here; however, play by lower ranked characters does not demand anywhere near the leadership behavior seen in the top guilds. As the challenges grow, the number of players who must work together for success increases. Consequently, we have gone straight to the highest echelons of play to find the most sophisticated leaders of the most successful organizations.

6. Reporting and Interviews With Game Experts and Top Guild Leaders. A second source of information about game leadership came from three different types of subjective responses gathered from guild leaders and players. The most important source here was reporting from a Seriousity team of six experienced players (see Endnote 3). This group has over 100,000 hours of online game experience, and they are recognized in the games as prominent guild leaders and expert players. In addition to recording guild and leadership activities, this group also conducted one-hour audio interviews with 10 top guild leaders, asking players to describe their leadership strategies and challenges, and to compare guild leadership with real-life leadership.

A final dataset was 173 online surveys completed as part of the Daedalus Project.^{xiv} Experienced game players were solicited on popular game websites and in chat rooms, and asked to complete an online survey about leadership in guilds. They were asked to describe how they became guild leaders and what was hard about guild leadership. An analysis of general comments about guild leadership is published on the Daedalus website (www.nickyee.com/daedalus/archives/001517.php). Several of the respondents commented specifically about the relationship between guild and real-life leadership, and those responses are referenced in appropriate places in the conclusions to follow. These comments were obtained as part of a secondary analysis of the original Daedalus Project interviews, and are included here with special permission of the study author.^{xv}

VI. Conclusions About Leadership in Games: Confirmations, Surprises and Predictions About the Future

Our conclusions fall into four categories: (1) conclusions about the applicability of dimensions in the Sloan model to game play; (2) new skills evident in game play that may be important for individual leaders; (3) conclusions about leadership environments in the games; and (4) predictions about how games may influence the future of work.

1. *All Sloan Dimensions Are In the Games.* The first conclusion highlights the richness of collaboration and leadership in games; that is, we found examples of all forms of leadership expertise defined in the Sloan model. This conclusion confirmed expectations, although we did find that the games emphasized some Sloan dimension more than others, and in particular, relating.

2. *Leadership Happens Quickly and In Temporary Roles.* The second conclusion, also applicable to individual leaders, highlights qualities of leadership in the games that may be different from real-life experiences. Leadership in the games happens quickly, leadership roles are often temporary, leadership involves risk taking, and leaders have substantial opportunities to practice. These differences suggest that gamers may develop expectations over time for similar experiences outside of the games, including leadership in their work.

3. *Game Environments Make Leadership Easier.* The third conclusion was a surprise. It is absent from the academic and professional literature about leadership, and was not anticipated in any discussions during the planning for the project. The conclusion was that game environments, not just the quality of the individuals who serve leadership roles, substantially determine leadership success. The implication is that changing the “game” may be as important as selecting and training the players. This is our most significant conclusion and we have catalogued what we believe are the most important elements of game environments that enhance leadership.

4. *Game Features May Influence the Future of Work.* The fourth conclusion is about the future -- in three parts. We predict that games will promote familiar qualities of leadership, they will promote familiar qualities of digital interactions that will be increasingly important as work environments change, and they will promote unique qualities of leadership, suggested and nurtured by the games themselves, but with as yet uncertain ties to the real world.

VII. Conclusion #1: Traditional leadership skills are necessary in games but there are differences in relative emphasis

Our first conclusion is that leaders in complex multiplayer games have experiences consistent with all of the Sloan dimensions. This is evidence that good leaders are good leaders, regardless of context. This means that games are at least an important source of practice for the real world (and vice versa), even if the games do not add or subtract skills. If the two worlds were different, the implications of games for serious work would be less clear.

1. *Relating and Inventing Are Emphasized In the Games.* While all of the dimensions are present, there do appear to be differences in relative emphasis. Complex games reward leaders that are good at *relating* and *inventing*. Leaders need to recruit and retain the good will of top players who have critical roles for guild missions, and they must invent procedures to organize players according to moment-by-moment tactics linked to the challenges in the game.

2. *Mainstream Game Narratives Require Less Sensemaking and Visioning.* Our expert gamers commented that changes in the relative emphasis of the Sloan dimensions apply primarily to mainstream games (e.g., *World of Warcraft*, *EverQuest2*). Those games have highly structured challenges with known tasks and tactics, and at least some common knowledge among players as to best methods for successful completion. In the structured challenges of the most popular games, sensemaking and visioning may be less relevant because those dimensions are defined by game narratives and structures. Basically, the game tells you what to do – the main tasks are recruiting players and then planning and executing the tactics that allow groups to achieve the goals specified by the games.

3. *Games Without Strong Narratives Require Different Skills.* Non-mainstream games require different skills, and some of our experts even say that visioning and sensemaking are more important to success in those titles than relating and inventing. For example, *Eve Online* explicitly reinforces the ability of a leader to go beyond *how* a task will be completed, and instead focuses on *what* kind of task is best in the first place. With its massive player driven economy, *Eve* rewards those who can identify a profitable set of activities for themselves or their corporations. But the game certainly doesn't hand an idea to a player or specify the steps.

4. *Virtual Environments That Are Not Games Also Require Different Skills.* Similarly, *Second Life*, a 3D environment not organized as a game, reinforces these same sensemaking and visioning skills. Doing well, defined as designing activities and building structures and artifacts that others want to use or purchase, requires having a larger vision in addition to an executional plan.

We will review each of the Sloan dimensions in their order of importance based on comments from players and experts in the study. We have focused on the mainstream game titles, and have highlighted examples of each category of behavior from the surveys and movies.

Relating

“The toughest thing about being a guild leader is maintaining relationships with all of your members on a personal level, and realizing that no matter what, you're not going to please everybody.”

Game guilds are the primary unit of group action in complex games. They number between 40 and 200 players, and typically have a leadership hierarchy that involves one to 10 players. Leading a game guild is substantially about building relationships. The games require recruiting, training, persuasion, coordination, and evaluation – and they involve delicate communications with immediate consequences if conversations go sour. Guild turnover, which can be substantial, is a constant reminder that people have options (i.e., there are plenty of other guilds and switching costs exist but they're not prohibitive). Attraction is a more successful method to sustain a guild than command and control, so leaders focus on relationships.

When asked to comment on leadership activities in games, guild leaders mention relationships more than any other topic. Many say it's a rude awakening, especially in an entertainment context. Opinions are divided on whether it's the best part of play or a burden too similar to problems in the real world for casual entertainment.

1. Relating is Rewarding and It's Hard. Many comments from players describe a tension between recognizing the importance of relationships and bemoaning the effort that it takes to maintain them. This player comment is a perfect example:

"Being a guild leader has its ups and downs. On the positive side, it's nice to feel the accomplishment of bringing a group of people together to work towards a common goal. However, there is an awful lot of handholding and personal conflict resolution that you have to do. I know in my first guild, I would find myself dealing with interpersonal player problems for 1 to 2 hours a night. I knew it was time to change when I found myself creating an alt - just to play without guild headaches."

Creating an "alt" refers to an alternative character or avatar, in this case, presumably one without leadership obligations. The comment highlights that you can play more than one character. In fact, all members of our game panel have more than one character, with the highest being eight for one title, *World of Warcraft*. Different characters are used to satisfy different motivations for a particular session – a character that's a recognizable guild leader for competitive sessions or an anonymous one for casual play.

2. Recruitment Is a Critical Context for Relationships. Some relationship issues are most apparent during game action, but for many game leaders, relationship concerns are most prominent when recruiting. Attracting good members can make or break a guild, and while some players stay in the same group for months without issues, it's also true that a majority of players are constantly evaluating their membership and looking at greener pastures.

The movie *Guild Recruitment* is an example of guild conversations about recruiting. Two *EverQuest2* guild leaders are discussing various members and players who'd either like to join the guild or who are being considered for removal. Reminiscent of business, the recruiting talk is about what to ask for in guild applications (i.e., go to a website and fill in a questionnaire), appropriate trial periods, who should do the interviewing, alleviating frustrations during membership interviews, the difficulty of finding good players, the necessity of over-recruiting to counter desertions, and forced dependence on third-party recommendations because there's not enough time for adequate trials during actual guild play.

3. Avatars Can Make Players Seem Less Real. The use of avatars to represent players can bias relationships negatively. Players report that it's difficult to keep in mind that avatars are real people, with real personalities, emotions and needs, behind each of the characters on the screen. Just as it's easier to flame someone via email compared to face-to-face, for many players it's easier to complain to an avatar, sometimes crudely, and often the complaints turn personal. And when they do, as in real life, there are often consequences – people quit and reputations are damaged.

Guild leaders have several opportunities to show good leadership, as in the example below. The leader attempts to focus on the humans behind the screen rather than allow players to objectify an avatar:

“We are a casual guild so there are not many tough issues to face. One of the most rewarding experiences happened recently though. Preparing to go on a 15 man raid of a specific dungeon with a pick-up group I had joined, I offered a few spots to some guild members who could help us round out the team selection. My guild accounted for 5 out of the 15 members. We had 3 DPS classes and the two main healers, priests. The raid began smoothly but the raid leader began to act erratically and pull far more monsters than was prudent for the situation. Needless to say he caused the entire raid party to die. After he caused this 'wipe' he began to make extremely rude comments about the healers, both of which are my guild mates. I, in very polite but not uncertain terms, told him to calm down and to work at a slower, safer pace. I might also mention at this point that the character leading the raid belongs to one of the 'power guilds' on my server. He responded with many vulgar comments about what he deemed the role of my 1/3 of the raid should be. After several minutes of trying to reason with him, and keeping my guildies from making any comments (I did not want them to color the situation at all as I the GM was working toward a solution) simply told the raid leader that he should not treat people this rudely. He began to fume and tried to put me in my place, so to speak. At that, I ordered our guild to leave the raid group to fend for themselves. They were left with no healers and a majority of their damage dealing classes leaving as well. For the next two hours they advertised in the major cities trying to regain the utility they had lost by alienating me and my guild. They never found replacements and had to give up the raid for behaving so badly. After we left, the healers in my guild apologized to me for potentially giving our guild a bad reputation. I first assured them that what the raid leader was doing was wrong and told them not to worry and also added, 'You don't get to speak to my healers like that.' I am very protective of my guild members. We have shared a lot of playtime together in the game and built what I consider to be meaningful relationships and I do care about their thoughts and feelings. So many people tend to forget that the Night Elf Priest that you are talking to is manned by a real human being on the other side of the screen. After I made my comment about not speaking to my healers in such a manner there was silence in the guild chat channel for a few moments before the priest replied, 'Wow... That is the nicest thing anyone has ever said to me in this game.' That has been one of the most rewarding experiences I have had while being a member of the leadership of this guild.”

For someone new to complex games, it may be difficult to imagine that relationship issues typical of real life could manifest so quickly, and be so faithful to stereotypes even in *virtual* social disagreements.

4. Game Leaders Try To Understand the Perspectives of Other Players. A good leader needs to make an effort to understand the perspectives of other people. This is certainly true in the games, and constitutes one of the higher applications of real-world lessons from work.

In the movie Performance Review, a guild leader solicits reviews from each of his officers before making any summary conclusions or taking action. The most important decisions are usually whether or not to retain a member whose contributions are suspect. In one exchange in the video, the guild leader hears about poor game play from an officer who advocates kicking a player out of the guild. The guild leader, in a comment reminiscent of the best of corporate HR, says a better method would be to first make sure that the player is aware of his mistakes, and has a chance to fix his poor play. That comment is exemplary with respect to fairness, but it's also a

shrewd calculation. The guild leader goes on to mention that seemingly arbitrary and negative action against players could be catastrophic for guild reputation. Going out of your way to develop a relationship insures loyalty, as valuable in the game as at work.

5. Game Leaders Get to Know Other Players as People. Most leaders at work are aware that groups can be quite diverse. Issues of gender, race, and age must always be considered in business relationships. Real world variance in these categories, however, may pale in relation to the games. It's quite likely in a guild that ages range from adolescence to retirement, occupations from software engineers to teachers to carpenters, and cultural background from the developing world to Wall Street.

The toughest thing about being a guild leader for me was making the hard decisions while dealing with people of multiple ages, ethnicities and time zones. I was continually balancing our 'guild rules' as they applied to loot, to ensure the largest numbers of people remained happy. I adopted a 'firm but fair' leadership style that seemed to appeal to nearly everyone - younger guildmates saw me as a father-figure type, while older guildmates saw me as their 'boss'. I found it very difficult, however, to schedule guild events for people in nearly every time zone; ensure that everyone had adequate help to gear up / prepare their characters for more difficult content; prepare myself to lead us to victory in that difficult content; and balance the contingent of 14,15,16 year olds versus the late 20s - early 40s people --- that was the most difficult task, as those two age groups tend to have some friction when placed into a setting that is equal. Different views on life, different manners of speech, less respect from younger folks...it was crazy.

A subtler version of diversity concerns motivations for play,^{xvi} often defined on a continuum from casual to serious interest. Leaders need to understand where participants fall on this continuum, and they need to encourage people with different game motivations and personalities to cooperate. That's not always easy as this female guild leader, aged 37, mentions:

The toughest part of being a guild leader is that my guild is comprised of people who have great personalities and get along really well, but are a real mixed bag of playing styles. You've got the guy who has 10 lvl 30 characters, you've got the guy who levels at a glacier pace, you've got the guy who hits 60 in a month but only wants to solo, you've got your hardcore raiders, the guy who has 8 lvl 60 toons, your casual players, your night crew and your stone cold PVPers. Trying to come up with goals and content for people like that, people who are all my friends, but have a million different goals, has been a really stressful balancing act. On top of which, I am a casual player who has a busy job and a RL of her own, and can't be on every night of the week to make sure everyone is happy. Being a guild leader has taught me about personality types and how to manage people more than any job I've ever worked on. While it's not always a fun lesson, it's definitely the most valuable thing I've gotten from the game.

First, this comment shows that gamers have a language of their own, including the following: lvl (level), 60 (the highest level in World of Warcraft – getting to that level in a month is really fast), PVPers (short for “player versus player,” referring to people who enjoy combat against other players), and RL (real life).

The leader in this example clearly understands the value in reconciling different interests; however, she also, and perhaps more so, understands the costs. This echoes the cost/benefit

tradeoffs in relationship management mentioned previously, and also highlights one of the most frequent reasons people give for retiring from leadership positions -- too much stress!

6. Relationships Often Involve Sensitive Self-Disclosure. Relationships in guilds can go well beyond game play. In spite of game customs that discourage disclosure of personal information, it's inevitable that conversations, when they are as long and intense as is necessary to succeed in the game, can turn personal. The stereotype of these stories involves sexual and romantic themes (e.g., there's been more than one marriage proposal offered in a game), but more commonly, the stories are about personal experiences. It may be that the presence of avatars instead of real people increases the willingness of players to disclose very personal information.

Every once in awhile the stories are intense:

"The hardest part about being a guild leader is listening to people's real life problems. I am sort of a 'mom' to people in the guild and a lot of them confide in me. I listen to some really sad stories and it's very difficult to hear them, they affect me greatly. Probably the most difficult was when a 27-year-old woman in the guild told me she had terminal breast cancer and that she just needed to talk to me because she was 'so scared'. I think the toughest part about hearing things like that is the realization that these folks had to confide in someone that they don't even know - I feel so bad that they don't have a real life friend or family member that they can reach out to."

It's difficult to pursue guild goals in the midst of intense personal stories. Leaders report difficulty in balancing the two, particularly when the personal information is shared with only one other player while the entire group is involved in a collaborative activity (see section IX on communication channels for a description of how game chat can accommodate one-on-one and one-to-many communication in parallel).

7. Relationships Are Sometime More Important to Players Than Rewards. In Section IX of this report, we describe how game leaders use the virtual economy in games to create and manage incentives for players to join guilds and take part in group activities. Economic motivations are key to convincing players to stay with a group; however, creating meaningful relationships is at least as important and sometimes more so.

It's common for a leader to use the promise of strong relationships as a persuasive tool when recruiting members. Leaders try to ensure that regardless of demographics, players share styles and goals. In the Guild Recruitment movie, you can hear several comments about guild relationships mentioned to attract players to join a group.

8. Relationships in the Games Go Beyond Familiar Groups. Relationships in games are not only with known group members. Like real life, there are often advantages to reaching out *across* groups. Relationships need to span boundaries in the games as much as in real life.

The video AQ Gates shows an example of when and how reaching out benefits a group. To achieve a major goal in *World of Warcraft* (opening the gates of AQ, which allows access to new game content), a leader needed to convince hundreds of players not in her guild to help complete quest objectives. The objectives included gathering raw resources, some which were most easily accomplished by low level players who themselves would not benefit immediately from opening the gates. One method to encourage participation was to invent a raffle, with valuable prizes given to players who helped contribute items toward the quest completion.

Another method was to stir up “nationalistic” fervor by convincing community members that they had to open the gates before other communities -- for the sake of server pride. These boundary-spanning techniques were successful, as evidenced by the hundreds of players who participated in the effort, and appeared on the day of the gate opening to see the results of their hard work. (We note that our expert gamers view this video as an extremely rare recording – something that happens only one time on any given a server and that requires a massive collaboration between groups and factions that are normally competitive).

Boundary spanning also looks beyond immediate events to future meetings. Leaders in the game recognize that relationships endure even after people leave a guild. Here’s a comment from a leader trying to balance different priorities of members:

“The toughest thing is to keep the peace amongst people of differing ambitions. I prided my guild on being a guild for those who enjoyed playing to relax and to escape the rigors of the day. Many people joined because of that purpose and then found their desires changing. The most difficult thing I had to cope with was encouraging those people to move on from the guild when their desires and ambitions changed and still be able to maintain a healthy relationship with them after the parting.”

In the movie Leadership Interviews, a current guild leader talks about keeping in touch with previous guild members, even some that weren’t good players, to learn about how their current group is viewed by others in the game.

The best leaders recognize that it’s quite possible that you will see players again – and at a time when they are even more valuable to your guild, assuming you can get them to join.

9. There are Limits in Relationships. Even though relationships are critical to guild success, there are limits. Several of the guild leaders recognize, sometimes painfully, that you can’t please everybody. One of the most difficult lessons is balancing maximum group satisfaction against an obsession with perfect relationships. There are times when you just have to make a decision, stick with it and accept the consequences.

“The hardest thing is trying to decide what is good for all. Currently we have a problem with materials for special fire resistance gear. Several of the materials have been distributed between the members, but we are seeing that many are being sold. At the same time people are complaining that we don't have enough fire resistance gear to survive and win certain battles. No matter what we will choose to do, some people will not agree with our decision. One of the lessons I learned as a guild leader is that you can't make everyone happy and sometimes you have to make a decision and stick with it (even if you don't completely agree with it).”

10. Players Make Explicit Connections Between Games and Real Life. Are the relationships in games like real life? Gamers often comment on the parallel between the two worlds, even without a specific prompt. Relationships and their importance, even more than the tactics and strategies of guilds, remind gamers of work. Here is an example from an ex-Army officer with an M.A. in Human Resource Management:

“The closest thing I can liken the leadership of an 80-person modern raiding guild to is the management of a medium sized business. You need to allocate

resources, construct balanced compensation for your employees, stay ahead of the competition (content), ensure growth (making progress in content), and keep everyone happy and productive while handling many other day-to-day details. It is long hours, and tons of work -- human resource management and people skills are stressed to their maximum limits. Luckily for me, I had competent, intelligent officers -- all of whom had college degrees and held management positions in real life. In the end, I worked at our guild's success for close to 60 hours a week of being online, raiding, answering emails/questions, refining the guild policies, and updating the roster/raid points for everyone. It was a full-time job and then some; I came away from it proud of my ability to manage that many diverse people and accomplish the endgame of WoW, but drained emotionally and physically. That is tough work."

It's also worth noting that some games encourage a parallel between the game and real life through the use of the language and labels of real business. In the *Eve Online* video (Manufacturing Partnerships), you can hear a conversation about corporations, CEOs, and investments – but it's all built into the narrative of the game.

In summary, there can be little doubt that relationships are crucial for leadership in complex games. On this dimension, the Sloan Leadership Model is right on target. No wonder that game leadership, especially with respect to the ability to manage relationships, is already considered relevant information for a job interview.^{xvii}

Inventing

Inventing was the second most common Sloan dimension found in the games. The mainstream games provide a structure and narrative that define the actions necessary for advancement, but it's up to the groups and their leaders to decide exactly what to do and when. Consequently, there's a premium on leaders who not only hold a group together, but also figure out the best way to accomplish tasks. Evidence for inventing did not come from open-ended comments by gamers as was the case for the dimension of relating. But as the videos described below show, there is plenty of evidence about inventive behavior from observations of game play.

1. Good Game Leaders Are Focused on Execution. Leaders need to execute against ideas, often untested and new ones, to get things done. Leaders need to help players plan and coordinate, and do whatever it takes to realize a goal.

The Lord Nefarian video is an excellent example of the inventing necessary to pull off one of the difficult group actions in *World of Warcraft*. It takes 40 high-level characters to play. Timing and sequenced actions are critical, and it usually takes constant instruction to guide the guild. The video shows a portion of a raid. The guild leader is in constant written and oral communication (via VOIP and chat) with the guild. He responds to adversity by assigning roles and responsibilities in a highly fluid situation, and he monitors assignments and gives updates as necessary. Without this attention to detail, the raid would fail.

2. Game Leaders Invent Effective Incentives. Designing and inventing incentives to keep players happy and participating is one of the more creative parts of guild leadership. As we'll review in another section, virtual currencies offer a flexible system that enables new

inventions about how to compensate players – a useful feature for guild as well as individual advancement in the game.

The video Incentive Structures is primarily about the economic systems that help structure group cooperation, but it is also a good example of creative play. Guilds and guild leaders invent elaborate schemes to share “loot” based on contributions to the action.

Sensemaking

Sensemaking involves organizing information to create a useful picture of some aspect of the environment. There are two different types of conclusions about sensemaking in the games (and the same applies to Visioning).

1. Built-in Game Narratives Drive Sensemaking More Than Players. In most mainstream games (e.g., *World of Warcraft*, *City of Heroes*, *Everquest2*), the narratives that organize the game define the larger picture in the game. In *City of Heroes*, for example, a player knows that game characters are meant to combat evil doers in the city, and most of the sensemaking necessary to lead a group follows from that narrative with little input needed from players.

Sensemaking in the Sloan Model, however, can involve more than just an understanding of how an organization operates. It can include any aspect of the internal or external environment. In this sense, guild leaders are exercising sensemaking when they realize that guild members are unhappy or when they assess what members can do well.

2. Sensemaking Is Often Distributed Across Multiple Roles. Another reason that sensemaking may be featured less in game leadership is that when required it is distributed across several roles. Often, a raid leader is not the same person as the guild leader – one coordinates detailed action, usually within a single session, while the overall guild leaders specialize in recruiting, creation of reward and incentive systems, and player evaluation. There is not a single position in a guild where sensemaking is a natural primary task.

3. When Sensemaking Occurs – It’s Done Quickly. It’s rare to hear leaders comment on sensemaking, and it was hard for our game experts to find examples. There are, however, moments when skills relevant to sensemaking are apparent. The video Rapid Sense Making shows a battleground^{xviii} leader quickly identifying appropriate strategy based on an analysis of the opposing team. The most obvious feature of this sensemaking is that it’s quick, a demand of the game that we review in a later section. But many elements of sensemaking as previously defined are apparent.

Visioning

The conclusion about visioning is similar to sensemaking – the mainstream games do not require creation of a compelling story about what the guild or game might be like in the future. There are players who, when asked, might have stories that would qualify as visionary, but effective leadership does not depend on them. Visionary input is most often supplied by the narratives in the games.

1. Visioning is Critical in Games Without Strong Narrative. There are, however, important exceptions to this observation. The first is *Eve Online*. The video Manufacturing Partnership shows how visioning skills are front and center in game leadership for this title. *Eve* concentrates on economics, allowing players to specialize in skills related to mining, manufacturing, research, trade and corporate management. The narrative of *Eve* is open ended, and the economy (and hence rewards) is player driven. The game designers do not identify opportunities for guilds and leaders. Leaders have to first and foremost create a compelling vision around which a corporation can galvanize and action can be structured.

2. Visioning Is Important In Virtual Environments That Are Not Games. Another exception is *Second Life*. As mentioned, *Second Life* is a virtual environment and not a game. Consequently, players initiate all group behavior, and some of activities are quite visionary. Players build discos, promote political, social and religious causes, organize hobbyists, and open up businesses (e.g., developing virtual real estate, and selling digital clothing). Some of the visionary organizations in *Second Life* completely bridge the virtual and real world divide. For example, several companies are open for business in this virtual world using the very same visions that guide their brick and mortar businesses (e.g., Starwood Hotels, Sun Microsystems, Reuters, BP, Wells Fargo and IBM).

The fact that these two titles are so different from others with respect to visioning suggests that there is nothing inherent in the games that would preclude an important role for visioning (and the same for sensemaking) as the genre matures.

VIII. Conclusion #2: Leadership Attributes Unusual In Traditional Businesses Are Common In Games

There are exceptions, but in many traditional businesses, people are appointed to managerial positions for months or years, they are not encouraged to take risks, they have time to make decisions, and most people have only limited opportunities to practice leadership. In online games, the opposite of these things is true.

Leadership Happens Fast

Whatever constitutes good leadership in the games – it happens fast. Not many players volunteer comments about the speed of action, possibly because it's such an obvious quality of the games that its importance is assumed. But to someone unfamiliar with the games, the pace of play, and the speed at which people make decisions, meet people, coordinate tasks and plan action, make a huge first impression.

1. Leaders and Followers Are Often Pre-defined by Roles in the Narrative. In the Rapid Strategic Planning video it took 22 seconds for five players to decide on the roles they would assume in a group action. Some of the roles were determined at the outset because capabilities of an avatar are defined by the role a player chooses when they first create the character (e.g., a priest is generally better at healing). Notice in the video that the chat exchanges during the quick planning session include very specific self nominations about the best roles for a character (e.g., "My character is a Mage, good long-range damage but very fragile"), followed by a short negotiation when there are two or more characters that could take on a similar role.

2. Negotiation of Who Will Lead Is Often Quick: The “One-Minute Leader.” Perhaps the best example of quick leadership is shown in the Worsong Gulch Battleground scenes in the Rapid Sense Making movie. This is an example of a 10-15 minute game between two groups of ten players based on capture the flag. The players assemble behind the gates of their team’s territory, and a one-minute clock starts counting down. That’s the time available to decide on different roles, size up the opposing team, and determine the first moves. Even as an observer, you sense the heightened arousal as the clock counts down to the time when the gates rise.

3. Quick Can Be More Important Than Making Everyone Happy. It’s true that maintaining good relations with a team is critical for guild success, and particularly for recruiting. But it’s also true that quickness sometimes trumps relationships. There are several comments related to the pace of play in the video Leadership Interviews (open-end oral interviews with prominent guild leaders) that show the tradeoff between time and consensus. This is an important lesson, and an early one for younger players, that it’s hard to make everyone happy. There’s often no time to waste on consensus.

The quick pace of play has a ripple effect on other aspects of the game, as noted in the next sections.

Leadership Roles Are Often Temporary

An important feature of leadership in real life is that people are identified and trained for leadership roles that usually endure across situations and even years. A rising star is identified in the corporation and offered mentorship, training and eventually a promotion to a position at least partially defined by leadership responsibilities. And unless problems occur, that position may last anywhere from several years to the duration of a career.

1. Games Have Few Expectations About Permanence of Roles. In the games, you might be a leader for 10 minutes or 10 days, more like a turn in the barrel, trading leader and follower roles back and forth with other team members between group sessions. Leadership is often just a job and not an identity. In part, leadership changes are enabled by the quick and organized pace of play, as shown in the Rapid Strategic Planning video. The leader in that action was chosen (or more often volunteered) in minutes, with no expectations that his role would last beyond one 10-minute episode.

2. Good Leaders Are Also Good Followers. In the leadership literature, there is debate about whether leaders are born or made. There is a corporate bias toward discovery of innate leadership skills that will endure, even if leaders need training and mentors. But if the games change expectations for a new generation, then the assumption that leadership skills are innate may seem overestimated to experienced players. Many, if not most, game players can step in to lead, at least for short sessions. Leadership becomes a state that a player enters rather than a trait that needs discovery.

The answer to the nature-nurture debate about leadership certainly includes both elements; it’s likely that leaders are born and then made. But in the games, a much greater percentage of the players than is true for business have experience with both leader and follower roles. There is good reason to believe that whoever leads will have people following that have a

better sense of what the leader is trying to accomplish because they have been in that role themselves.

3. Leadership Stars Do Emerge. There are, however, leadership stars that emerge and persist, most often guild leaders who build strong relationships with 100+ players. Some of these leaders have lasted longer than a year, an eternity in this new medium. For example, the leader in the video AQ Gates, is well known among his server community. Not only has he led his guild for over a year, but he has also been influential with other groups on his same server, as demonstrated in the movie.

4. Game Leadership Can Be Tiring. There are certainly players who tire of leadership changes and uncertainty. Some take charge more out of frustration than a desire for a prominent role, with frustration the final result. These two comments from players are good examples, the first from a woman, 36, and the second from a man, 27:

I became guild leader of my guild after several guild leaders took the position and stepped down, I got tired of the ping ponging and took it over.

I became a guild leader when the guild I was an officer in was struggling to merge with another. When things didn't work out to plan, the previous guild leader called it quits. The guild was left without a leader, and when no one volunteered to take over, I stepped up to the plate. It wasn't my desire to lead, but I knew if I didn't, everything we had worked so hard to build would crumble.

5. Game Leaders Are Often Volunteers Stepping In To Help. Temporarily stepping in to lead based on recognition of need has an interesting implication for business. There is often a recognition in business, but certainly no expectation, that someone will step up to offer temporary leadership if groups go awry. What if work groups were more dynamic, allowing for continual changes as the group developed, including the opportunity for self-nomination? This may appear the ultimate in chaos to some, but to the gamers, it may offer familiar opportunities to blend the worlds of work and play.

Risk Taking Is Encouraged

An accelerated pace also contributes to a more relaxed concept of risk. It's easier to get past mistakes in the games, in part because you don't have to wait long to try again or try something different. Trial and error becomes a preferred strategy, and failure, at least on occasion, an expected feature of play. This may contrast, perhaps even sharply, with more deliberate strategizing in companies, where leaders form ideas or theories, carefully debate options, and only then execute.

1. Games Offer Chances for Quick Changes in Strategy. Player attitudes toward risk can be seen in the Features of Failure video, where a familiar group of players attempt an encounter with a new "boss," one they've never seen before. They formulate a strategy based on information gathered prior to the encounter, but no one on the team has seen this type of character. They all seem comfortable with the high probability of failure on the first encounter. There's even an expectation that the group needs to fail once or twice before they'll really know what to do. After the "wipe" in the movie, the team continues planning changes they'll make on the next trial, which all players know could be tried as soon as a new plan is hatched.

2. Decisions About How Much Risk to Accept Are Often Made Quickly. A second example of risk is more casual but highly effective. In Rapid Sensemaking, the leader of the quickly assembled group gets a chance to survey the enemy and then lead an action that our expert gamers thought was an interesting but highly risky maneuver. The leader put everyone on offense, leaving his own base open for attack, and he made the decision on the spot.

3. Gamers Take Interpersonal Risks. There is another social risk with respect to conflict. This may be due in part to that fact that players are represented with avatars and are not actually present on the screen, thereby encouraging comments that wouldn't be made in face-to-face encounters. In any case, heated discussions are common, and gamers report desensitization to group conflict over time.

4. Risk Taking and Innovation – Are There Game Friendly Companies? The encouragement of risk taking is an important current issue for companies trying to promote innovation. “Game friendly” companies may be able to achieve competitive advantage by tolerating failure; for example, the current practice at Google to allow workers one day per week to work on new projects with an expectation that they will choose something with uncertain outcome.

Practice Is Plentiful

In business, leadership training may be a week at a company retreat or limited on-the-job practice, perhaps augmented by a bit of mentoring. In the games, however, there are plenty of opportunities to practice leadership strategies and tactics. Games can be virtual leadership simulators offering players informal but realistic training likely many years before they would see similar action at work. Companies could explicitly include multiplayer games as part of their leadership development programs. These would be like “management flight simulators” for soft aspects of leadership, as opposed to the more analytical aspects for which simulators are already available.

1. Leadership Practice Includes Diverse Groups. Most practice in the games, of course, is with real people, but often not the homogeneous groups that might typically participate in a formal corporate training exercise. As already discussed, the games have substantially greater breadth of player demographics, and they don't eliminate players that might pose the greatest leadership challenges because of casual or unpracticed play.

2. Learning Is Informal With No Set Curriculum. The leadership learning accomplished during game play is the epitome of *informal* learning. There is substantial new evidence in the learning literature, and new programs in corporate training, that attempt to take advantage of the tendency for learning to benefit when it occurs in informal contexts.^{xix}

3. Gaining Real World Practice Is On the Minds of Game Leaders. Players often mention leadership practice when they're asked to comment on how game leadership works. The practice is not only relevant to current work, but can also lead to confidence in the ability to seek a different job. Here is a sample of comments that make explicit reference to links between work and play. We wonder about the truthfulness of the 8X salary boast in the first quote, but not about the direction of influence.

Being a guild leader has affected my RL ability to lead people and stand up and do what is good and needs to be done. I have received numerous promotions at work into leadership positions and I make almost 8 times more now than when I started WoW last year. [Male, 24, World of Warcraft]

I learned several things; I could manage events for a few hundred people, I could mediate arguments, I began to notice traits in individuals which were helpful in predicting what they were most likely to do next or likely to be interested in. I learned to delegate authority without releasing responsibility. I am very proud to say that my experience strengthened my diplomatic skills which had never been a strong point prior to my experience. I also learned more about the Internet, building sites, moderating forums that I didn't know before. [Female, 56, World of Warcraft]

Last year, I was elected as the leader of the guild I'm part of when our old leader (a good RL friend) left. At first, I was a bit concerned about my ability to organize 100 some people from all over the world but, as it turned out, I learned that I was much more organized than I had thought I would be, and that I had an uncanny knack for diplomacy and leadership. The experience made me feel very empowered, and good about myself, and I've recently made the decision to pursue a career in design, something I've always wanted to do, but was afraid to, because I never thought I'd measure up (I'm currently a marketing professional, and am pretty bored with it). It's hard to describe very eloquently why EQ helped me feel like I could do it ... but it has. It's given me confidence in myself, and made me realize I make good decisions, and am pretty smart, and that gave me the push I needed to make a "scary" real life decision. Now that I'm pursuing a new career, I'm feeling MUCH happier in general with my life, even though I've not landed that job... yet. :) [Female, 34, EverQuest]

I was approached by several of these friends to assume leadership of the guild and agreed, even though I was uncertain of my suitability. I've grown more accustomed now to directing various aspects of running the guild and providing a vision and leadership to the members. Follow-up and assertiveness now feel more natural to me even in real life. It has been an amazing opportunity to push myself beyond my boundaries and a rewarding experience. [Female, 46, EverQuest]

4. Games Allow Groups to Practice, Not Just Individuals. Finally, leadership practice not only benefits individuals. There are also opportunities for groups to rehearse how they will structure leadership, sometimes guided by the most abstract notions of governance. In *Eve Online*, for example, there are groups that compete based on shared convictions about leadership roles as defined by capitalist and socialist systems. Groups decide to change their governance based on experiments with radically different systems, and they accomplish the change quickly. It's difficult to imagine where you could gain similar practice and learning absent a complicated production involving the cooperation of several people over a long period of time.

IX. Conclusion #3: Leadership Is A Property of Environments, Not Just Individuals

Most writing about enhancements to leadership focus on how to select or develop *individuals* who are best suited to lead based on backgrounds and natural talent. Traditionally, leadership is something that you are either born with or learn, but in either case, the expertise resides with the individual leader. In this traditional view, common practices to identify leadership include performance reviews and recommendations from peers, and common practices to develop them include classroom instruction and career planning.

Our study of leadership in online games has led us to ask a different question: Why can't we also develop *environments* that make effective leadership easier? This question originated with the experienced gamers on our team who were puzzled by our initial preoccupation, guided by the Sloan Leadership Model, with individual talent. Their question was: "Why not change the game instead of changing the leaders?"

To answer this question, we needed to consider another, related question: What properties of environments facilitate effective leadership? That is: What properties of environments make leadership easier or better?

We believe there are at least three properties of game environments that facilitate effective leadership: (1) *incentives* provided by explicit virtual economies (2) *transparency* of many kinds of important and conveniently organized information, and (3) *connections* through a variety of specialized communication channels.

When all three of these properties are present and interrelated in the right ways, then people can manage themselves to a large degree, players know what they should be doing, and it is easier for leaders to be effective. The strongest (and speculative) version of this conclusion may be that leadership, at least as represented by individuals, may in fact be less necessary as environments and their metrics substitute for individual actions.

Incentives: Economies Are the Psychological Infrastructure For Games

One of the most important features of game environments is a clear method for rewarding behavior. When assessing leadership in real life, "scoring" can include financial measures like revenue, profit, and salary, but it also often includes subjective measures like performance reviews, reputation and peer ratings. The virtual economies in online games provide many of the motivational benefits of real-world financial measures, but they can also be used even more broadly to provide explicit incentives for things that might otherwise be more subjective.

1. Virtual Currencies in Games Work Like Real Money – But They're Not. Virtual currencies work just like real money – i.e., they use a scarce resource to facilitate decision making – but without the serious attention that accompanies real currency (e.g., taxes, withholding, salary conflicts). And perhaps most importantly, the game economies, and the individual behaviors they enable, are substantially more transparent than similar interactions using real currency. Unlike the secrecy that often accompanies real money, the metrics for the interactions (who gives and gets what) is most often publicly celebrated.

2. Game Economies Enable Scorekeeping. Incentives, real or virtual, require a method to keep score, and games are at their best in this area. People want to know how they will benefit from any cooperation with other players, and they'd like to know before the action starts. Players mention this often, but this single sentence captures most sentiments:

The toughest thing about being a guild leader is that people don't like following rules if there is nothing in it for them.

It's also important that the records in the economy are quantitative. There can be impatience with promises tied to social relationship but trust in systems that count and record deals before the action starts and rewards when it is complete.

3. Games Economies Help Align Personal and Group Goals. It's hard to lead people if players don't have any incentives to do things that are in the interest of the group, and it's much easier to lead them if they are already highly motivated to do what helps the group. Effective incentives are both compelling and task relevant. By compelling, we mean that people actually want them. By task relevant, we mean that the incentives are leading people to do the things that need to be done. The opportunity to closely align personal and group goals is a central promise of games in the real world.

4. Players Want to Know About Rewards Before the Action Starts. The timing of knowledge about the benefits of participating in group action is critical – gamers want to know going in what they might expect as a reward. Interestingly, there is evidence that this is a growing and similar issue for business, especially for people in virtual groups that depend substantially on collaborative tools rather than fact-to-face meetings.^{xx} For example, people want to know how their input to a group will be credited to them before they feel comfortable sharing work, and especially digital work that be easily forwarded or repurposed without their involvement.

The movie *Incentive Structures* shows the use of one particular economic feature of games (DKP or Dragon Kills Points) that is used as an incentive system for players, and one that can be negotiated before the action starts. Important features of the DKP system featured in the movie are that contributions are transparent, there is information about how the group and individuals are doing moment-by-moment in the action, and leadership is easier and more trusted because the computer keeps track of contributions and allocations.

5. Game Economics Are Relevant to Play In Short Time Domains. The *Incentive Structure* movie also shows that game economics have rewards tied to short and long time domains. This is an important attraction of game play, especially because players are able to receive feedback in short time domains. In business, evaluations may happen quarterly or annually with salary adjusted even less frequently. In the games, however, the numbers related to quality of play can change moment by moment in relation to contributions being recorded during action. In the movie, you can hear bidding for a valued asset during a raid. The player accrued the points necessary to win the auction and he received the asset right in the middle of the battle!

6. Money (Even When It's Virtual) Motivates Play. One of our expert gamers was a master at the use of incentive structures to motivate play in his guild. As guild leader, he would offer DKP rewards to a raiding group if they pushed performance to difficult but realistic level; for example, "an additional 4 DKP for those that can clear a dungeon in under 3 hours." These rewards were often declared on the spot based on opportunities presented in the game. What's

important for leadership is that the game offered all necessary affordances to extend that offer quickly and to monitor relevant data as players participated. Without this help, it would be difficult to make such offers, at least not in the short time domains that are psychologically compelling and useful to motivate advancement in the game.

DKP systems also worked for this leader in longer time domains. Using the same DKP system, the leader announced that players could mine raw materials that the group needed and receive additional DKP units, encouraging enterprising miners in the guild to perform an otherwise boring task over the course of days.

7. *Transparent Economies Facilitate Meritocracies.* The expert gamers also comment that the action during complicated raids like the one depicted in the Incentive Structures video is less organized by social relationships, compared to similar action in real life. This may happen because the data relevant to judgments about quality of play are transparent. That is, the environment, by providing details about the players, facilitates a meritocracy. The perception of advancement based on merit may be as important as the reality. When it at least *seems* that the only thing a player need do to “win” is play well, motivation to excel increases.

Transparency: Many kinds of important information are easily available

This section describes how the transparency, quality, and ease of accessing important information facilitate leadership in online games. A first point is that all of this information, including portals to software instrumental to the game but not fully integrated into game products, is available in a single screen (sometimes called a *cockpit*). Granted, the screens are some of the most complex software interfaces available, at least in terms of the amount of information available but it is also true that their visual integration encourages a thoughtful integration of the functions available.

1. *Status and Communication Functions Are Shown Together In A Single Location.* In the *Eve Online* video (Manufacturing Partnership), the first screen shots of the standard interface demonstrate this integration. On the far left column there is a row of buttons all related to social interaction during the game. There is no need to open and close different software and the buttons remain in the same place during play. There’s one reliable place to go to accomplish most leadership relevant tasks. Players can stay within the narrative of the game while acquiring necessary information about players and communicating instructions to a group.

2. *The Functions Represented in the Interface Are Leadership Relevant.* The functions all have a leadership flavor. In the *Eve* interface, the top button gives players information about themselves (e.g., status, currency). The next buttons down are for finding other players, emailing players (via individual notes and mailing lists), taking notes during play, accessing market information during trades, and opening up a browser within the game (and one that can recognize attributes of current game play when players get to particular websites).

The *World of Warcraft* interface is perhaps even more leadership relevant. Almost all of the information in the very complex visualizations refers to the progress and status (“health”) of people on your team. The screen shots during complex raids in Lord Nefarian and AQ Gates show team status, especially those on the right side of the screens. A leader can quickly scan these indicators and know who to communicate with and something about what to say. In

addition, a leader can know the physical locations of team members (using the look-down map in upper right), status of nearest team members (bars on left), and messages from team members (scrolling text in lower left).

3. Games Allow Leaders to Visualize Action From Different Perspectives. Much of the information about a leader's team is contained in the data surrounding the center screen where the action happens. You don't have to be watching a particular team member to have immediate access to information about their status or progress.

There are many times, especially when teams are coordinating close action that requires accurate timing and sequence, when it's also good to know where team members are in the 3D world. Games allow great freedom in placing the camera wherever useful. That is, players can change their perspective on other players by manipulating certain keys. It's possible to switch quickly from a top-down view of an entire battleground to a birds eye view to a third-person close shot and everything in between. The quick camera angle and perspective changes in the raid in the Lord Nefarian video is an example of how a leader can scan an environment with great flexibility, tracking everyone in the group.

The game interfaces are one of the few, if not the only, interfaces available today to bring all of this information into a single view with a single look and feel.

4. Games Make Capabilities Known To All. In addition to being well organized and easily available, much of the information in online games is also relevant to leadership, providing crucial information about capabilities and performance. It's obvious, but worth saying explicitly, that it's hard to lead when people aren't capable of doing the tasks that need to be done. In business, if groups don't have the right expertise (e.g., engineering, marketing, sales), they may not be successful. But other than job descriptions at fairly high levels, there's often not enough information about capabilities and talents to put together the right team quickly, let alone an opportunity to reconfigure a team once an action is underway. Games present detailed information about each player that is available for all to see.

5. Levels, Labels and Ranks Help Identify Capabilities. The games, perhaps more like the military than business, make capabilities explicit through the use of ranks, levels, and numerous other indicators that show what people can do. This is not a sufficient condition for success but it is necessary to succeed in guild action. Levels in *World of Warcraft*, for example, define capabilities and most players know enough to seek help (or stay away) from players simply based on that information.

6. Game "Cockpits" Include Capability Information. It's worth noting that a typical game dashboard includes detailed information about the players' capabilities. In the Incentive Structure movie, for example, almost all of the information that surrounds the actual avatar action is about the most current capabilities of the players; for example, ranks, levels, spells, weapons, health, time on task, location in the physical space.

7. Performance Reviews Are Continuous. In the Performance Review movie, there is detailed conversation about how different people contributed in a recent raid. The discussion seems natural and ordinary but in fact it's extraordinary when you listen for the detailed quantitative information that players are able to offer about how everyone performed. Those evaluations would not be possible without transparency, and it's likely that the evaluations would be substantially more impressionistic than empirical.

8. *Transparent Performance Metrics Make it Difficult to Cheat.* Players learn to trust game metrics, in part because they are difficult to cheat. Consequently, players and leaders place confidence in their use for important evaluations. It's important for gamers to know that data are objective and less susceptible to social influence than might be the case in settings with fewer environmental indicators of performance.

It's interesting to consider the similarity of transparent reputation data from the games and reputation data on commerce websites, for example, eBay. While it may be possible to have several friends submit biased evaluations of performance, it's extremely difficult for someone to counterfeit 10,000 entries. The use of reputation data in commerce is gamer friendly, if not game inspired.

9. *Metrics Help Players Manage Themselves.* When an environment provides metrics that make it easy to evaluate how well different people are contributing to the group goals, then leadership is usually much easier. It's easier for leaders to tell how well different people are contributing and reward them appropriately. But even more importantly, it's easier for people to manage themselves. Players can more easily see for themselves how well they are contributing and adjust their behavior to contribute more effectively.

Connections: Communication Channels Are Numerous and Useful

It's hard to lead people if you can't communicate with them and, in general, it's easier to lead people when you can communicate with them more easily. In the real world, this usually means that it's easier to lead people who are nearby. But many online game worlds have a number of properties that make similar kinds of communication possible. In fact, in some ways, online games may make better use of the limited communication bandwidth provided by today's technologies than more conventional applications like videoconferencing.

1. *Communication Options are Numerous In Games.* In traditional business communication, the choice of communication channels (e.g., calling, face-to-face, email) substantially determines the number of people that will participate in an interaction. There are certainly options for some forms of control (e.g., muting, pointing cameras, cc and bcc lines), but most configurations are determined, or at least highly constrained, by the initial choice of modality.

In complex games, the options are more numerous and they can be reconfigured quickly in real time, although all of the technology is commonly available in standard business collaboration. Consider the guild action in the Lord Nefarian video and the auction in Incentive Structures. There are several different conversations overlaid in the action, and all are understandable and useful. Most obviously, guilds are connected via VOIP (usually a proprietary plug-in to the main game). The voice conversations can be broadcasts to the entire group or selected voice commands to individuals, and both are used. For example, the guild channel in the Lord Nefarian raid is used to broadcast instructions, a group channel to narrowcast to a few characters with similar roles, and a one-on-one channel to microcast to a player who needs encouragement or special instruction. In addition to the voice channel, there is a continuous chat channel that has a color-coded system for the same micro to narrow to broadcast selections. And still other communication is possible via email from within the game, and of course the occasional phone call or even walk over to a guild member's screen in the same room.

2. *A Voice Channel Combined with Visuals and Text Is a Powerful Game Feature.*

The use of voice-over tools is a relatively new and game-changing quality of communication in the games. The most obvious advantage is efficiency. In the Lord Nefarian video, the voice over chat is intimately linked to action on the scene; for example, when the leader “pings” the game map so that players can see exactly where he wants them to relocate or when he signals that all players should move to a specific location (and now!) to avoid damage to the raiding part. There may be limited times in business practice when group activity requires the synchrony of action that these techniques allow, but in cases where tight control over process is required, game techniques may work well.

The biggest use of voice-over communication is for quick instruction about the details of raids. The exact same technology, however, is also used for what amounts to voice-only deliberations; for example, performance reviews, strategy sessions and analysis, and discussions of guild policy. In the Performance Review movie, the critique of someone’s play is accomplished with voice-over chat using privacy settings that are easily configurable to allow just the right subset of the guild to participate.

In these cases (as is shown in the Performance Review movie), there is no link between the voice chat and the coordination of avatars on the screen. Some players report activities like general web surfing or other out-of-game computer use during the voice conferences, but others can be seen exploring game environments and informal play with their avatars during the conference, and each activity is entertaining and potentially relevant to future game play.

3. *Games Allow for Proximity-Based Control of Communication.* In the physical world, it is easier to communicate with people who are nearby than those who are far away. This proximity-based control of communication has many useful (and some not-so-useful) consequences in ordinary communication. We use it to control who we talk to by physically moving to places (like meeting rooms) to be near those with whom we want to talk and isolated from those with whom we don’t want to talk. We also sometimes benefit from communicating with people we have encountered by chance in the physical world (e.g., at the water cooler or coffee pot).

Even though they don’t yet provide the audio and visual fidelity of face-to-face communication in the physical world, the communications among avatars in online game environments can provide the same kinds of proximity-based control of communication that is available in the physical world. Players go to the places in the games where there are people they want to engage, and avoid places where they’re likely to see characters they don’t want to meet. For many purposes, this communication model may be more useful than the models provided by more conventional electronic communication media like email, instant messaging, and video conferencing.

4. *Quick Navigation Facilitates Communication With “Distant” Others.* In the virtual worlds of online games and future businesses, people can move almost instantly from one “place” to another, and the constraints on who they can be “near” are much looser. For instance, one traditional view of effective leadership is called “management by walking around.”^{xxi} The importance of doing this may be no less in a virtual world, but the ease of doing it is greatly increased.

5. *In Games You Can Easily Communicate With People You Don’t Know.* Mostly, game players are looking for specific players who are part of their guild. But there’s still a lot of

serendipity to meetings in virtual worlds. Players bump into other players while navigating from one place to another, and often those chance meetings lead to cooperation (e.g., recruiting guild members, asking advice, casual conversation). On the more competitive servers, however, the meetings can also lead to trouble.

6. Games Allow For Quick Switching Between Public and Private Channels. One of the more interesting communication practices is the simultaneous use of public and private channels. It's certainly true that business groups practice this, (e.g., people can and do send IM messages privately during phone conferences), but typical business cases almost always necessitate operating two different message systems that are uncoordinated.

The Collaborative Building movie is an example of this commonly used public/private feature in the virtual world *Second Life*. The instructor uses a private channel to give special attention to one of the players who has informed the instructor that she is new to the environment. The private message gives the instructor a chance to keep the larger conversation active while giving special help to a single person, and it gives the new user an easy way ask a question that may otherwise not be asked. In other words, it's possible to ask dumb questions during a conversation without risk of embarrassment. And also possible to give or receive a pointed critique without the same risk.

In the games, constant reconfiguration of public and private channels is an expected communication practice, and the games make it easy to accomplish. However, with the large number of possible settings for turning on or off different players, mistakes called "mistells" are common. This happens when a message or comment is made outside of the narrow channel intended, revealing sensitive information. There is tolerance for these mistakes, however, because the value of private communication is perceived to be large. This may be a counterpoint to the generally accepted value of transparency in games – ranks, levels, and rewards are public, but communication can and should be private on occasion, made possible by game controls that are quickly and easily reconfigurable.

7. Communication in 3D environments Can Be About Common Objects. Most often in business, leaders communicate with followers about objects that are often not present in the same visual space. And even when the object is present, there is no opportunity to communicate in real time about the same object while it is being constructed.

Second Life is an example of a 3D environment where this is possible (see *Second Life* video). A leader (teacher) is communicating with a follower (student) while they are both constructing an object (a bridge). We know of no other category of software that enables this type of communication while an object is being manipulated in a shared virtual space.

8. Self-Representations (Avatars) Can Communicate Non-Verbally. The vast amount of communication in the games, and especially tactical communication, involves written and spoken language; however, there is a growing opportunity to make interactions even richer. Avatars can smile, gesture, and move in ways that signal meaning, just as those behaviors do in real life. This has not reached the level of information available in video conferencing, for example, but it's relevant to how the games engage players. Beyond non-verbal forms of expression, the movement of avatars in physical space also has meaning. It's apparent to all who an avatar (i.e., player) chooses to stand by, how close they stand and whether they choose to approach or withdraw as the interaction proceeds.^{xxii}

9. It's Easier To Find People To Communicate With In The Games. A final note concerns initiating communication in the games. Obviously, leader can't talk to people if they can't find them. One promise of social networking technologies is that they will allow people to search and find the right connections, often based on the frequency of connections (e.g., email contacts) among people in a network. Currently, the technologies that enable this type of networking are not well integrated into normal workflow. In the games, the searching methods are built in and available when needed without recourse to other software.

X. What do games tell us about the future of leadership in business?

Looking at leadership through of lens of online games provides a number of insights about the future of leadership in business. First, as we've seen above, many aspects of leadership in games are very similar to traditional business leadership. Core leadership capabilities like sensemaking, visioning, relating and inventing are widely applicable in both domains and are likely to continue to be important in business in the future.

Second, some aspects of leadership in games—like the easy acceptance of risks and plentiful opportunities for practice—are inherent in the nature of games. Since outcomes in games are, by definition, less important than the outcomes in “real life,” risk taking and practice are easier in games than in most real business situations. Similarly, the temporariness of leadership roles and the speed of action in games are, in part, a result of the fact that the games are explicitly designed to be entertaining and engaging experiences for their players. Other factors in the business world—like increasing rate of change and increasing importance of innovation—may make these same features more common in business leadership, too, but our study of games does not have strong implications for the degree to which these features will be incorporated in future business leadership.

Finally, and perhaps most importantly, our study of games highlights the importance of *environments* in making leadership easier or harder for individual leaders. It is especially significant that the features that make leadership easier in games are greatly facilitated by the digital medium in which these games are played. For instance, it is much easier in digital environments to transparently collect and display large amounts of performance information and to have numerous specialized communication channels. Even the economies that provide critical incentives in games are much easier to implement when digital technology can take care of all the detailed accounting these economies require.

Ironically, many of today's gamers have become used to more sophisticated technology for doing these things in the gaming world than they find in the business world. And there are now increasing opportunities for companies to use these game-like features to create information-intensive business environments where leadership is both easier and more effective.

In the long term, we believe that this trend is almost inevitable. And in the short term, we believe that many companies may realize significant competitive advantage from doing this early. Not only will their digitally enabled environments make leadership easier, they will also make it more fun. And in the history of media, it's never been right to underestimate the power of fun.

Study Authors

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ⁱ Beck, J. and M. Wade (2004). *Got Game: How the Gamer Generation is Reshaping Business*. Harvard Business School Press.

ⁱⁱ Stodgill, R. M. (1974). *Handbook of leadership: A survey of the literature*. New York: Free Press, p. 259.

ⁱⁱⁱ Adapted from: Yukl, G. (2006). *Leadership in Organizations*. Upper Saddle River, NJ: Pearson Prentice Hall, p. 3

^{iv} Ibid, p. 189.

^v Ibid, p. 76-77.

^{vi} Ibid, p. 93, and Vroom, V. H. and Yetton, P. W. (1973). *Leadership and Decision Making*. Pittsburgh: University of Pittsburgh Press.

^{vii} Yukl, *op cit*, p. 252-3.

^{viii} D. Ancona, "Leadership in an age of uncertainty." In Deborah Ancona, Thomas Kochan, Maureen Scully, John Van Maanen, and Eleanor Westney, *Managing for the Future: Organizational Behavior and Processes*, 2nd ed., Cincinnati, Ohio: South Western College Publishing, 1999. T. Malone, *The Future of Work*, Harvard Business School Press, 2004, pp. 162-167. D. Ancona, T. W. Malone, W. J. Orlikowski, and P. Senge. "In Praise of the Incomplete Leader", *Harvard Business Review*, February 2007, in press.

^{ix} The concept of sensemaking, as we use it here, was developed by Karl Weick. See Weick, K. (2001) *Making Sense of the Organization*. Malden, MA: Blackwell Publishing.

^x Ibid.

^{xi} Argyris, C. and Schon, D. 1996. *Organizational Learning II: Theory, Method, and Practice*. Reading, MA: Addison-Wesley.

^{xii} Data from The Daedalus Project: <http://www.nickyee.com/daedalus/archives/001467.php>

^{xiii} *Second Life* is technically not a game but rather a 3D environment. The "residents" of *Second Life* decide on the activities in the world. There is no goal for participation other than what user groups define. The environment is similar to games in that users create avatars that represent them in a 3D world, and the environment does support an economy. *Second Life* has generated considerable and spirited discussion in our group. Several of the expert gamers think that it is less useful as a source of ideas about serious work in companies, because it does not explicitly encourage collaboration and does not have the same mission oriented narratives that engage game players. It is, however, increasingly popular (2M users and growing approximately 20% per month), and it is the venue for many early corporate uses of 3D worlds (e.g., IBM, Sun, Wells Fargo, Reuters).

^{xiv} 280 MMO players who were or currently are guild leaders participated in a survey at The Daedalus Project. The open-ended survey focused on lessons learned and pain-points. The

original online report of that survey can be found at:
<http://www.nickyee.com/daedalus/archives/001516.php>

^{xv} Ibid.

^{xvi} Yee, N., The Demographics, Motivations, and Derived Experiences of Users of Massively Multi-User Online Graphical Environments. Presence: Teleoperators and Virtual Environments, 2006. 15: p. 309-329.

^{xvii} Brown, J.S., and D. Thomas. "You Play World of Warcraft? You're Hired," *Wired Magazine*, April, 2006.

^{xviii} Battleground game play is different from guild actions. In a typical battleground event, players make themselves available for a defined group action by announcing their intention to play, waiting in line until a group can be formed (groups can be from 5 to 40 players), and then very quickly formulating a leadership hierarchy and battle plan. The entire experience may last 10 minutes.

^{xix} A good summary of the informal learning opportunities is "How People Learn," from the National Research Council (2000). J. Bransford, A Brown and J. Pellegrino (Eds.).

^{xx} Neale, M. (2003). Information technology as a jealous mistress: Competition for knowledge between individuals and organizations. *Management Information System Quarterly*, 27, 265-287.

^{xxi} Peters, T.J., and R. H. Waterman (1982). *In Search of Excellence*. Warner Books, Inc.

^{xxii} Yee, N., Bailenson, J.N., Urbanek, M., Chang, F., Merget, D. (in press). The Unbearable Likeness of Being Digital: The Persistence of Nonverbal Social Norms in Online Virtual Environments. *The Journal of Cyber Psychology and Behavior*.

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