

Online Spiele als Laborversuch

Eine Dokumentation des BR IBM Düsseldorf – Sep 2007

Vorbemerkung

Wilfried Glißmann (BR IBM Düsseldorf)

An Insight on Gaming

Global Innovation Outlook 2.0 (2005)

[http://domino.research.ibm.com/comm/www_innovate.nsf/images/gio/\\$FILE/GIO_2005_for-printing.pdf](http://domino.research.ibm.com/comm/www_innovate.nsf/images/gio/$FILE/GIO_2005_for-printing.pdf)

Podcast mit Tony O'Driscoll (IBM)

Online Games Put the Future of Business Leadership on Display

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Leadership in a distributed World – Lessons from Online Gaming

IBM Institute for Business Value

[http://domino.research.ibm.com/comm/www_innovate.nsf/images/giogaming/\\$FILE/ibm_gio_ibv_gaming_and_leadership.pdf](http://domino.research.ibm.com/comm/www_innovate.nsf/images/giogaming/$FILE/ibm_gio_ibv_gaming_and_leadership.pdf)

Der Text des IBM Gaming Reports

Virtual Worlds, Real Leaders... - Online Games

Put the Future of Business Leadership on Display

[http://domino.research.ibm.com/comm/www_innovate.nsf/images/giogaming/\\$FILE/ibm_gio_gaming_report.pdf](http://domino.research.ibm.com/comm/www_innovate.nsf/images/giogaming/$FILE/ibm_gio_gaming_report.pdf)

Podcast mit Thomas Malone (MIT)

MMORPGs, the Future of Work and Distributed Learning

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Podcast mit Byron Reeves (Stanford)

Playing Games at Work

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Vorbemerkung

Online Spiele wie „World of Warcraft“ erregen das brennende Interesse der Human Resource Experten. Die Studie „Virtual Worlds – real Leaders“ untersucht, wie sich in diesen Spielen „Leadership-Verhalten“ herausbildet, und die IBM will diese Erkenntnisse nutzen, um Leadership in der IBM von morgen entwickeln zu können.

Das fasziniert die HR-Professionals der IBM: Bei diesen Online-Spielen interagieren tausende von Menschen unter sehr virtuellen Bedingungen. Im Spiel übernehmen sie wechselnde Rollen und Verantwortungen, sie schließen sich zusammen und verfolgen gemeinsame Ziele, obwohl sie sich noch nie gesehen haben und räumlich und kulturell getrennt sind.

Die Human-Resource-Leute fragen sich: Wie kommt diese Zusammenarbeit und Motivation zustande? Welche Rahmenbedingungen führen dazu, dass Menschen im Spiel plötzlich selber die Führung übernehmen und eine Kampfgruppe zusammenstellen und diese wirksam zusammenhalten? Und: Wie kann das auf die Arbeitswelt übertragen werden?

Für die einen ist es ein Online Spiel – für die anderen ein Laborversuch.

Der IBMer Tony O'Driscoll, der Leiter der Abteilung „Performance Architecture Analysis and Design“ erläutert in einem IBM Podcast das Vorgehen der Studie: In den Virtuellen Welten sei es technisch möglich, die Ereignisse in Bild und Ton mitzuschneiden (mit dem „Machinima Mechanismus“). Man habe zunächst Level-60-Spieler identifiziert, um deren Verhalten im Spiel dann wie ein Kriegsberichterstatter festzuhalten (Seite 5/6 dieser Dokumentation). So seien über 50 Stunden Videomaterial entstanden, das dann von Experten der IBM, vom MIT und der Stanford University wissenschaftlich ausgewertet wurde.

Die Designer der Spiele & die Designer künftiger Unternehmensformen.

Die Autoren der Studie (Seite 19 bis 22) sind Professor Thomas Malone vom MIT und Professor Byron Reeves von der Stanford University. Reeves ist zugleich Mitbegründer der Firma Seriosity, die Prinzipien der Online Spiele auf Unternehmen übertragen will und Malone ist Berater dieser Firma.

Bemerkenswert ist überhaupt das Zusammenwirken der Designer der Online Spiele mit den Designern künftiger Unternehmensorganisationen:

Die Designer der Spiele setzten Rahmenbedingungen. Die Spieler reagieren auf diese Bedingungen, und die Interaktion der Menschen nimmt ihren Lauf.

Die Designer künftiger Unternehmensformen fragen sich: Was also sind das für Bedingungen, die aus bisherigen „Lemmings“ richtige „Leader“ machen? (Seite 22) Welche Rahmenbedingungen führen dazu, dass die Menschen „tun, was zu tun ist“, und „wie von selbst“ die entsprechenden Rollen und Verantwortungen übernehmen?

Thomas Malone erläutert in einem weiteren IBM Podcast (Seite 28ff), wie das Verhalten der Beschäftigten auf indirekte Weise gesteuert werden könne: Im Unternehmen seien „Settings“ und Umgebungen zu designen, die Selbstorganisation unter den Beschäftigten in Gang setzen (Seite 29).

In einem anderen IBM Podcast, erläutert Professor Reeves, wie er Spiel-Prinzipien in die Unternehmen übertragen will (Seite 31ff). Wesentlich sei die Sichtbarkeit der Kompetenz, und damit die Bedeutung der erworbenen Reputation. Diese seien zugleich eine Art von „Währung“, die neben anderen „Währungen“ hohe Motivation schaffe. Entscheidend sei auch die Sichtbarkeit dessen, wie gut die einen agieren und die andere eben nicht. Eine solche Sichtbarkeit sei auch in den Unternehmen zu schaffen.

Ein Papier des IBM Institute for Business Value zeigt das spezifische Interesse der IBM auf: Die Technik mache es heute möglich, die Arbeit über den ganzen Erdball hinweg zu verteilen. Wie aber kann unter diesen Bedingungen das Zusammenarbeiten koordiniert werden? Wie kann hier Motivation entstehen? (Seite 8)

Das Umgehen mit dem Virtuellen

Die IBM hatte erstmalig 2005 im „Global Innovation Outlook“ Online-Spiele erörtert, und sogleich gefragt, wie das beobachtbare Leadership-Phänomen übertragen werden könne (Seite 4). Dieser Artikel wirft im letzten Absatz einem Gedanken auf, der zwar als Frage formuliert wurde, ganz offensichtlich aber in einem zustimmenden Sinne gemeint war: „Was wäre, wenn die Menschen nach ihrer Arbeit ähnlich süchtig wären, wie sie nach Online-Spielen süchtig sind?“ (Seite 4 unten).

Dieser Sichtweise widersprechen wir ganz entschieden. Tatsache ist: die Arbeit in der IBM wird in vielfacher Hinsicht immer virtueller. Insofern wird die Fähigkeit, mit dem Virtuellen umgehen zu können, immer wichtiger. Dazu gehört aber insbesondere die Fähigkeit, sich nicht im Virtuellen zu verlieren.

Zu dieser Dokumentation

Wir werden im folgenden nur den Wortlaut der IBM Texte dokumentieren. Auf der Titelseite finden Sie die URL-Adresse der Dokumente, so dass Sie diese auch im Original studieren können. Bitte beachten Sie, dass alle Dokumente für jede und jeden frei zugänglich sind.

Wilfried Glißmann
Vorsitzender des Betriebsrats IBM Düsseldorf
Mitglied im Aufsichtsrat der IBM Deutschland GmbH



Aus: Global Innovation Outlook 2.0 (2005)

INSIGHT:

**Success will depend on
how well you play the game—literally**

Being farsighted will no longer be sufficient for tomorrow's leaders. In the future, they will need to envision here, there and everywhere simultaneously, making rapid-fire decisions based on multiple and constantly shifting inputs. Forced to operate in this mode—and short of developing some kind of bionic vision—they will come to rely on new tools and technologies that can enable rapid processing of massive and disparate amounts of information.

Most participants feel that today's MBA programs simply don't prepare future leaders for this business reality. Some even suggest that the next generation of leaders won't carry diplomas or degrees, but rather will be "the outliers"—cultivated on the outer edges of the bell curve rather than inside ivy-covered halls.

As business becomes increasingly distributed and virtual in nature, what kinds of leaders might emerge and what attributes will they have? To answer this, some participants suggest **studying 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.

Perhaps the most intriguing examples can be found at the **polar opposite from command and control management systems**: in the emerging world of massively multiplayer online games, or MMOGs. As unlike traditional video games as universities are from the one-room schoolhouse, they traverse the Internet to enable thousands of players to interact, compete and collaborate with one another in real time. The game play exists in a persistent universe, where there is no clear beginning and end and no set schedule.

Despite a high level of complexity and uncertainty—not to mention the lack of formal hierarchy—people naturally adopt different roles and responsibilities and then get things done collaboratively. The **connective tissue of this collaboration** is the normalizing culture of the game itself—a common set of rules and standards binding players from different geographies, backgrounds and motivations. And, invariably, certain individuals emerge to set direction and shape the behavior and success of others.

Gaming also suggests other ways companies and individuals can prepare to thrive in these future work environments. The best games build an intuitive level of education into the play itself. Players can't help but learn the skills necessary to master a game while they play, and they usually improve quite rapidly. Similar approaches—building learning intuitively into work processes and procedures—might allow companies to shift from costly and infrastructure-heavy training and development programs to more **flexible contextual learning models** that allow people to develop emerging new skills as needed. This also raises an intriguing possibility for a better approach to increased productivity: fun. Imagine if employees were as addicted to their work as they are to these games. There may be a vast well of energy, effort and creativity that remains largely untapped if employers continue to make strict divisions between work and play.

GIO Podcast Series: An Innovation Conversation about the future of the enterprise

TranscripT Title:

Online Games Put the Future of Business Leadership on Display

Date: June 2007 **Podcast Length:** 8:40

Summary: Tony O'Driscoll, who is part of IBM's On Demand Learning organization talks about IBM's 'Gaming as a Metaphor For 21st Century Leadership' study, a Global Innovation Outlook 2.0 Report

Host: Amy Hermes, Global Innovation Outlook, IBM

HERMES: Hello, and welcome to the Global Innovation Outlook Podcast Series where IBM demonstrates the innovative value of collaboration.

My name is Amy Hermes, and today I'll be speaking with Tony O'Driscoll, who is in IBM's On Demand Learning group and specializes in performance architecture analysis and design. Thanks for joining me today, Tony.

O'DRISCOLL: Thank you, Amy.

HERMES: So let me jump right in and ask you a little bit about the Global Innovation Outlook study that IBM did this past year with Stanford, M.I.T. and a startup known as Seriosity to study the emerging modern leadership trends that are being expressed and developed within Massively Multi-Player Online Role Playing Games, also known as MMORPGs. Can you tell me a little bit about the study, Tony?

O'DRISCOLL: Sure. The study was really an extension of GIO 2.0 where some provocative questions were raised like, what if the future consisted of a billion one-person enterprises, and what if the trend of people jumping from career to career actually extended to where the role of the enterprise might shift to orchestration of facilitation of people around endeavors rather than being full-time employees.

So the question got raised, well, how would leadership work in a world like that? And very quickly, the GIO Deep Dives kind of honed in on this and said, well, isn't that already happening in Massively Multi-Player Online Role Playing Games, and could we learn something from observing leadership behavior inside that environment?

HERMES: So what can you tell me about leadership if we look at it in terms of gaming?

O'DRISCOLL: Well, we were fortunate as you mentioned to partner with M.I.T., Seriosity and Stanford on this. So the way we went after this, Amy, was we decided we were going to going to get access to some of the premiere guild leaders in the world and observe them inside the games, and see what exactly they were doing.

We used Sloan's Management Model, which talks about four different characteristics of distributed leadership. And we started to use those frameworks to observe leadership and say, oh, we're seeing a lot of inventing, we're seeing a lot of relating, a lot of sense-making, we're a lot of visioning.

So we're trying to compare the leadership behaviors that the hardcore guild leaders are exhibiting and how does that compare back to what we believe enterprise leadership looks like today.

HERMES: So tell me a little bit about this gamer generation. Who was it specifically that you talked to?

O'DRISCOLL: The average demographic is between 28 through 30 years old in the MMORPG space and 12 percent of gamers are already managers in enterprises. Average gamer spends about 20 hours a week playing games. Good breakdown, male/female demographic.

So, thanks to our relationship with Seriosity, we partnered to go after level 60 guild leaders, meaning people who were at the highest level of leadership inside of a number of games. We looked at Eve, and Everquest, and World of WarCraft.

And essentially if you can imagine this, it's like a virtual documentary. In the gaming world, and in the SecondLife life world, there's a mechanism called machinima, where you actually strap on a camera in the virtual world and you become an investigator or a journalist.

So imagine you have the top guild leaders from all of these games. And you now have people who have the ability to go in and actually tape what's going on. It's almost like being on the front line of a war as a journalist; observe the leadership behavior as it's going on in real activity.

We collected between 50 and 100 hours of videotape and then we looked at that videotape and tried to correlate it back to the Sloane leadership behavior to see how much of the leadership behavior that we believe is important in the enterprise is exhibited inside the gaming context.

And we found all of it is. All the leadership behaviors that we believe are important for the enterprise today are exercised inside of these Massively Multi-Player Online Role Playing Games.

HERMES: Tell me a little bit more about what you found as it relates to the corporate world.

O'DRISCOLL: The first thing we found is that all the different leadership behaviors are present in games.

The second thing we found is that they get honed a whole lot quicker for a couple of reasons. Inside the gaming environment, as I mentioned before, it takes about 450 hours to get to be a level 60 leader.

Now, the games have advanced, so now there are level 70 leaders. But when we did this study, level 60 was as high as you could get in a game like World of WarCraft. A game hour is like a cat year, it moves pretty fast.

So what we found is inside the game leadership happens a whole lot faster. Decisions have to be made a whole lot faster. The leadership roles are temporary. So in other words, it's not like I'm the CEO, I'm going to tell everyone what to do because that person may not be there on any given day. So the leadership roles are quite temporary.

Risk taking is encouraged. So there's obviously a lot of risk and trial and error associated. And practice is plentiful, meaning that there's a lot of opportunity for people to step into leadership roles that they may not traditionally have the opportunity to inside the enterprise.

So if you think about those four things coming together, they come together as a flywheel which is a mechanism to allow those leadership behaviors to get exercised more rapidly.

And there's a famous article that came out in Wired Magazine I guess February of last year, is "Play World of WarCraft, You're Hired," talking about a guy named Steven Gillette, who was hired by Yahoo. He had the exact same resume as another person competing for the job.

But Steven was a level 60 guild leader, which meant he had proven his ability to manage globally distributed teams, which is what he would have to do exactly in his job.

So we think that playing games is serious business and I want to be very explicit. These are Massive Multi-Player Online Role Playing Games, they're not the one person shooter games or the Tony Hawk skateboarding games, but the games where you require having to pull together a volunteer work force, where you have a lot of information coming at you. You have very split-second decision making in order to move through a series of quests, and you have to manage tokening and incentives and rewards, and hiring and firing and so on and so forth.

Those types of games, we believe at least from this study, would suggest that they provide the opportunity to hone the skills that people in the enterprise believe are important.

HERMES: So, would you say that the study looks at gaming through a young person's lens? Or would you say that it's more from a corporate world lens? How does it blend them together?

O'DRISCOLL: So in terms of the first piece of the study we were looking at gamers in their natural habitat.

And again, we got three findings out of it – the leadership behaviors are there in the games, that they happen faster. And the third finding that we got is that the gaming environment itself makes leadership easier so there are incentive mechanisms inside the games that make getting people on board and getting people to come raid and group with you is easier.

The transparency of people's capability and experience and skills is very clear to everybody inside of games. So you know what you're up against, in other words.

And the communication and the dashboarding mechanisms inside of games are very sophisticated. The dashboarding systems, everybody is kind of looking at the activity in the game but they're looking at it through a lens of what the work flow is and what is the capability of the people is So instead of having a corporate dashboard sitting in headquarters where one or two executives are making decisions, essentially everybody is looking at the strategy unfolding and observing it through the same dashboard and everyone is covering everybody else's back.

What we then did, in conjunction with the Institute for Business Value was really to conduct a survey with 214 seasoned IBMers who also play games to validate whether or not some of the findings we had from the first piece of work we did with actually had applicability back into the business.

And we found that 39 percent of the IBMers that we surveyed who are both gamers and leaders within the enterprise believe that MMORPG leadership approaches things that they learned as a leader in the games -- can be used to improve leadership effectiveness within the enterprise and 75 percent believe that environmental factors can

HERMES: So here's the tough question. What's IBM's going to do about all this? What's coming down the pike as a result?

O'DRISCOLL: Well, I think it's important to note that in this study it was IBM working with Seriosity, M.I.T. and Stanford. But when we say IBM, we should be clear who we're working with.

I'm part of the learning organization and we had members from the leadership and capabilities organization. We had members from Research and so on so forth.

And so from a leadership capability perspective, Chris Rotolo, who is in charge of defining leadership capabilities for IBM was part of this study, because two of our competencies that we have in our leadership model at IBM are horizontal thinking and strategic risk-taking.

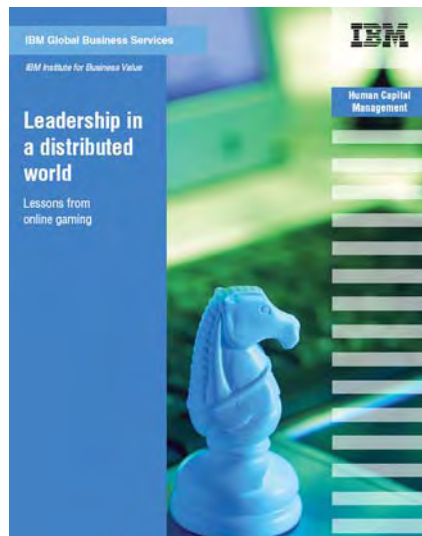
And his interest is in looking at how do those things happen inside of games we believe is going to inform how we shape the execution of those competencies in the future.

The second thing, which is not lost on us as an IT company, is the notion that if 75 percent of the respondents believe that the environmental factors within games can be applied to enhance leadership effectiveness for the Globally Integrated Enterprise and we're an IT business, I think that more and more we're going to start looking at how can you game-ify work?

What can you do with dashboarding? What can you do with visualization of data that can help the leader make more informed decisions more rapidly so that we can continue to gain market advantage so I think you'll start to see some things coming out on that front from IBM.

HERMES: Tony, thank you so much for your time. O'DRISCOLL: You're welcome.

HERMES: For more information about the Global Innovation Outlook please visit www.ibm.com/gio.



Leadership in a distributed World – Lessons from Online Gaming

IBM Institute for Business Value

*By Michael DeMarco, Eric Lesser
and Tony O'Driscoll*

Globalization is placing new demands on today's corporate leaders. As organizations continue to expand and operate in a more virtual environment, executives are being asked to provide guidance and direction to teams working across time zones and distances. In addition, the competitive environment is requiring leaders to make sense of increasingly disparate sources of information and make decisions more rapidly. In this changing environment, where can organizations turn to see the future of leadership? How can they determine the skills and tools that leaders will need to be successful? We believe that online gaming provides a window into the future of organizations and the leadership capabilities necessary to guide enterprises to success.

Introduction

Initially, seasoned executives might scoff at the notion of learning leadership lessons from the world of computer games. Yet, massively multiplayer online role-playing games (MMORPGs), which bring together thousands of simultaneous players in a fast-paced online environment, can provide an interesting portent for the future of organizations. MMORPGs represent a growing business that, according to the TowerGroup, will reach 40 million people and generate over US\$9 billion in revenue by 2010¹.

Numbers aside, the similarities between the online, globe-spanning gaming world and the emerging picture of the globally integrated enterprise of the future are actually quite striking. As technological innovation enables companies to disaggregate and send increasing amounts of work to employees and external partners around the world, organizations are conducting more work virtually. Corporate leaders must both coordinate and motivate individuals who are separated by time zones and cultures. Collaboration – at an individual and corporate level – has become a necessity. And in today's dynamic business environment, leaders must take more risks and execute with greater speed – briskly connecting talent and moving information and knowledge around the globe to fulfill organizational needs.

Obviously, the stakes are much higher in business than in gaming, and we do not mean to trivialize the operational challenges of a global enterprise in any way. However, we do believe the world of MMORPGs – and the behavior of leaders who guide guilds of globally-dispersed gamers – can offer fresh insights into the development of new leadership capabilities for global enterprises.

¹ Nelsestuen, Rodney. "Online Social Worlds as Emerging Markets: A Dose of (Virtual) Reality." TowerGroup. July 2006.

Leadership in a distributed world

Lessons from online gaming

The future of work and leadership: Insight from MMORPGs

In today's increasingly global business environment, companies are being forced to conduct more work virtually. Besides being more distributed, the business world has become faster paced and intensely competitive. For today's corporate leaders, engaging the hearts and minds of individuals who are located around the globe has proven difficult, especially in emerging economies where plentiful job opportunities and rising wage rates make it difficult to hold onto the best and the brightest.

With organizations struggling to find traction in this rapidly changing global environment, where can they turn for guidance on building a leadership toolkit for the future?

Harkening back to the old adage about "all work and no play," it turns out that MMORPGs can offer a glimpse into the future of work. In MMORPGs, leaders develop and operate in environments that are highly distributed, global, hyper-competitive and virtual – not unlike today's business world. In these sophisticated gaming environments, leaders recruit, organize, motivate and direct large groups of players toward a common goal. They must make decisions quickly, often based on incomplete information. With this backdrop, it's easy to see how some of the qualities of gifted gaming leaders are very similar to those needed in a corporate setting.

While studying the personal attributes of online gaming leaders is useful, perhaps more important is the role the environment plays in their development. Many of the qualities of online game environments facilitate leadership, and speed up the process of developing leaders.

Recent research done by IBM, Byron Reeves from Stanford University, Tom Malone from the Massachusetts Institute of Technology (MIT), and Seriosity, a company that Professor Reeves co-founded to develop products and services based on the intersection of business and gaming, highlights significant parallels between online gaming and the future of work². Both environments:

- Bring together large numbers of participants in highly complex virtual environments
- Enable participants to self-organize, develop skills and take on changing roles
- Require constant risk taking, iterative improvement and the ability to accept failure
- Provide incentives that are clearly linked to contribution and performance
- Make participants' capabilities openly known
- Require collaboration and a leader who can influence collaborative approaches
- Provide sophisticated and varied communication channels.

² "Virtual Worlds, Real Leaders: Online Games Put the Future of Business Leadership on Display." IBM Global Innovation Outlook 2.0 Report. June 2007.

Making the connection between corporate and gaming leadership

Given the parallels between the gaming environment and the globally integrated enterprise of the 21st century, we decided to explore the similarities and differences in leadership across both domains. To do so, we tapped into an extensive cohort of gamers who work for IBM. For this study, we collected survey responses from 214 professionals who participate in a community of online gaming enthusiasts. (For study demographics, please see Appendix 1). Because these respondents have experience in both the corporate and gaming worlds, we believe they are well-suited to evaluate leadership behaviors in both environments.

We focused our research on three areas (see Figure 1):

- Which leadership behaviors are most relevant in online and corporate settings?
- Which tools and capabilities benefit leaders in both environments?
- How relevant are the parallels between leadership in the online and corporate worlds?

Leadership behaviors

Academics and business thought leaders have developed countless leadership models over the ages to identify the key behavioral attributes required for success. For our purposes, we sought a leadership model or models that would enable us to better frame our comparison of leadership within the gaming and corporate worlds. Ultimately, we used a hybrid of our internal IBM leadership model and a well-known leadership framework developed by MIT Sloan faculty members Deborah Ancona, Wanda Orlikowski, Peter Senge and Tom Malone³.

Using our model, we developed 19 survey questions related to four pivotal leadership behaviors (see Figure 2 for a list of the 19 topics):

- *Visioning* – Setting a vision for what that organization can be in the future
- *Evaluating* – Gathering information to determine strategic risks for the organization
- *Collaborating* – Leveraging the value of connections and relationships to overcome organizational barriers and accomplish key activities
- *Executing* – Getting the most out of followers and achieving desired results.

³ Ancona, Deborah, Thomas W. Malone, Wanda J. Orlikowski, Peter M. Senge. "In Praise of the Incomplete Leader." *Harvard Business Review*. February 2007.

FIGURE 2.

Leadership behaviors used in this study.

We determined the importance of each of the four leadership behaviors – visioning, evaluating, collaborating and executing – by surveying our respondents about the 9 specific sub-behaviors shown below:

Visioning

- Creates a compelling vision of new possibilities for the organization
- Expresses confidence in own abilities, experience and judgment
- Sets high expectations for what the organization can do
- Assures long-term sustainability of effort through commitment to a common purpose/vision

Evaluating

- Gathers, validates and integrates nontraditional sources of information
- Makes rapid, data-driven decisions that address the immediate situation and considers the longer-term impact
- Supports brokering of information and sharing of resources
- Seeks opportunities to stretch his or her own abilities and experiment with new things
- Learns from mistakes of self and others

Collaborating

- Creates and maintains strong personal relationships and contacts at multiple levels
- Follows through on commitments and demonstrates consistency between words and actions
- Rallies the hearts and minds of others around a common cause and creates a sense of commitment . Gives positive feedback on performance in the moment
- Considers the implications of own actions on others and adjusts accordingly

Executing

- Creates new work structures and approaches
- Translates seemingly unattainable goals into manageable pieces
- Sets clear performance expectations and helps others understand the importance of the goal
- Monitors, organizes and drives others relentlessly toward an established goal
- Demonstrates resilience and emotional stamina when difficulties and problems occur, taking responsibility for the situation.

Source: IBM Institute for Business Value analysis; adapted from IBM internal leadership models as well as the work of Deborah Ancona in “Leadership in an Age of Uncertainty,” MIT Leadership Center Research Brief, 2005.

From the survey, we identified a number of important results:

Overall, leadership behaviors appear to be relevant in both gaming and corporate environments.

It was apparent from our analysis that virtually all of the leadership behaviors were perceived as valuable in both the corporate and gaming settings. While the relative importance of each of the 19 behaviors was slightly lower for gaming leadership, overall, these behaviors were still found to be highly relevant (see Figure 3). This reinforces previous research conducted by IBM and Seriosity that highlights the similarities between the leadership qualities demonstrated in corporate and gaming settings. However, as we show later in the paper, there are some differences in the relative importance of behaviors in the corporate and gaming environments.

One behavior that appeared to be an outlier focused on “monitoring, organizing and driving others relentlessly toward an established goal.” Individuals in the sample believed that this behavior held relatively less importance in both the corporate and gaming worlds. This suggests that self-organizing and regulating behaviors may be more appropriate in an increasingly flexible and virtual environment.

Collaborative behaviors are vital to leadership success within MMORPGs and will be increasingly so within corporate environments.

While our respondents found collaborative behaviors to be important for both corporate and gaming leaders, the relative importance was greater for gaming leaders. In a virtual environment, where leaders do not have face-to-face interaction with their followers, building personal leadership credibility takes on a premium and requires finding new ways to win the hearts and minds of others. The best gaming leaders build credibility by first creating strong personal relationships with their followers. As one survey respondent said, “In games, it’s important to be able to find what motivates an individual and try to cater to that need as best you can ... your raw skills in a game are not as important as the ability to communicate, organize and activate guild members.” Similarly, in corporate environments where employees are becoming increasingly distributed and virtual, the ability to foster collaboration will become an even more critical leadership quality in the future.

Visioning is more important to corporate environments because the business playing field lacks the many predefined dimensions that lend structure to games.

In our findings, we learned that behaviors associated with visioning were ranked higher in corporate environments than in gaming environments. In fact, respondents identified “creating a compelling vision of new possibilities for an organization” as the single most important behavior for corporate leaders. Because many game dimensions and desired outcomes are predefined, it’s understandable that gaming leaders may place less emphasis on painting a long-term picture of the future for others. Even so, gamers rely on leaders to use visioning behaviors for motivational purposes. As one respondent stated, “It’s important to have a vision to rally your team around, but the vision must be concrete. Vague concepts don’t rally teams for long.”

Evaluating is an important skill for both MMORPG and corporate leaders who must gather information from far-fung sources and quickly and decisively chart a course for action.

In games, learning-by-doing is key. The best leaders collect and evaluate data, take decisive action, judge the results of that action then respond accordingly. Aligning the evaluation process with the dynamic business environment of the 21st century will not happen overnight, as the survey respondent suggested when saying, “Failure to achieve a goal on the first try must be used as a learning experience and is not unusual in MMORPGs; reattempting with new knowledge is an important way of progressing in MMORPGs ... In the corporate environment ... reattempting is hard.”

Executing in games, and in more flexible corporations, is enabled by aligning frequent feedback with both short- and long-term incentives tied clearly to goals.

In games and at work, people will “play” where they feel best treated and where rewards are consistent not only with their economic needs but also with their values. Our research shows that the best gaming leaders motivate accordingly by breaking desired outcomes into manageable pieces and by distributing feedback immediately upon the completion of a particular objective. Because action happens fast in games, rewards are also distributed rapidly, which serves to reinforce desired values and motivate toward longer-term stretch goals that require resilience and stamina on the parts of both the players and the leader.

One survey respondent commented on execution within games by saying, “Strong leadership in MMORPGs involves having a definite goal for the group, or guild, motivating it toward that goal and breaking steps up so they are attainable.” Again, we see basic leadership fundamentals on display, but in the context of fast-moving, virtual environments, the fundamentals require more rapid leadership responses to effectively guide a team.

Implications

Overall, we see that leadership behaviors are universal, but the relative importance of those behaviors shifts in a virtual world. We learned that:

- Virtual leaders must focus on developing trust among people who may never physically interact.
- “Visioning” will remain among the most important behaviors for leaders of globally integrated enterprises to master while communicating to a global workforce engulfed in constant change.
- Effective leaders will use readily available data to make quick decisions and more frequent mid-stream corrections.
- Leaders focused on execution will motivate employees with on-the-spot feedback and rewards that are aligned with strategic imperatives.

Leadership tools and capabilities

To succeed, a leader must not only demonstrate certain behaviors, but also apply tools and techniques to increase the impact of their behaviors. As part of our study, we asked our respondents about 24 capabilities typically found within online gaming environments and asked which were the most important in terms of enhancing leadership effectiveness in the corporate environment (see Figure 4 for a complete list).

From the list of 24, six capabilities were ranked highest by survey participants:

Communicate in realtime on multiple channels. To win, leaders must communicate with team members to gather data for evaluation, identify the right people for the right task, offer instructions for execution and drive toward the agreed-upon goal. These communications take place over a variety of channels, such as voice, e-mail and instant messaging. This allows leaders to reinforce critical messages and helps ensure that individuals in the field are providing input to leaders and coordinating with others on an ongoing basis.

Identify and develop the skills/abilities of your character. In games, by identifying the skills/ abilities of players, leaders not only allocate tasks in the short term, but also help players determine their own skills and interests. From there, they show those players how they can acquire the skills necessary to play other roles within the team over the medium to long term.

Navigate instantly to the place where people you want to connect with are located. In a virtual world, instant navigation to common locations allows leaders to get “in front” of their followers to take responsibility for their actions, get to know the team, build trust and create the *esprit de corp* needed for victory. Having a single meeting location gives each member of the team a virtual “place” where they know they can find others without having to waste valuable time and energy.

Accumulate assets and earn status, experience and points. In games, players can earn a variety of rewards that reflect their contribution to the game. Leaders use these incentives transparently to encourage behaviors and collaboration and show “what’s in it” for players, thereby aligning individual and team goals. Short-term incentives provide instant feedback that can help boost morale, energize action and correct behavior.

Quickly locate capable players to participate in raid/quest. Given the scattered and diverse locations of players in the virtual world, finding the right people with the right capabilities on short notice can make the difference in online games. This is particularly true given the voluntary nature of participation in such endeavors. In the corporate world – a similar analogy holds true – finding available talent from around the world to work on new opportunities or fill existing gaps is often a task that many organizations currently find significantly challenging.

View operational status and communication channels simultaneously. Having the ability to view operational status and communicate at the same time allows for the fluid handoff of responsibilities and enables faster decision making. Gaming leaders are also rapidly assessed and ultimately judged based on their visioning, evaluating, collaborating and executing abilities, and less on their political acumen.

Implications

The tools and capabilities that help gaming leaders excel can also inform the leadership strategies of corporate leaders. Operating in a more virtual environment may require business leaders to:

- Take extra steps to overcome physical isolation, help employees see where their strengths lie, get them the right training and project opportunities and remind them of their roles and importance to the team.
- Provide frequent incentives to add some tangibility for those working together virtually, offer status among electronically connected peers, and help them link their everyday actions to corporate goals.
- Take action more quickly by leveraging new realtime communication channels and virtual communities to bring individuals to a central “location” and enable participants to collaborate, evaluate and execute.

Leading in gaming and corporate environments: Is the analogy relevant?

One of the important issues we examined was the extent to which our respondents believed in the relevance of online gaming as a metaphor for the future of leadership within organizations. While the level of buy-in varied, the following results suggest that increasingly virtual corporations and their leaders can benefit from a better understanding of what drives successful leaders of MMORPGs:

- *More than one-third (39 percent) believe that MMORPG leadership approaches can be used to improve leadership effectiveness within the enterprise.* These respondents indicated that the skills and techniques of the gaming leader can be documented and transferred directly to the leadership of the virtual corporation. As one respondent explained, “I believe that the interpersonal, leadership and management dynamics of online games can be learned and developed in games, then mapped directly to a virtualized business environment. This mapping does not necessarily require that the leadership or those being led have experience in online gaming, only that the skills and techniques learned in the game context be used in the business context.”
- *Nearly half (49 percent) state that game-playing has improved their real-world leadership capabilities.* In the same way that certain high school and college athletes or class officers gain leadership experience that carries over into the corporate environment, these respondents see opportunities within the workplace to apply techniques practiced and mastered within the gaming environment. According to one respondent, “MMORPGs provide a test of how to work in teams and best utilize the potential of a particular person even when you do not have formal authority over him. This is similar to ... situations where we need to team with colleagues within corporations.”
- *Three-quarters believe that the environmental factors within MMORPGs can be applied to enhance leadership effectiveness for the globally integrated enterprise.* Respondents indicated that any tool that enhances the ability of a gaming leader to better collaborate, vision, evaluate or execute – whether that tool be an instant messaging capability or expressive avatar – ought to be applicable to the virtual business world. Said one respondent, “Staying in touch with the members of the team is crucial for success in the game. One

important factor is the ability to communicate via chat either in the game or using an instant messaging tool at work and recognizing the mood, intention and goals of the person you are communicating with.”

While many agreed that there were close connections between the online gaming and corporate environments, there were some noted dissenters. Some skeptics state that games are played only for fun and that the risks taken have no consequences. Consider the respondent who said, “When gaming, while you do want to win, there is no perceived real-life consequence when something goes terribly wrong... In the real world, any major mistake at a job could cost you that job, or even your career.”

Still other participants saw plenty that could and should be adapted from games but doubted the ability of corporations to do so because of risk aversion, insufficient dedication to people, and command-and-control cultures.

Said one respondent, “In games, leadership is all about empowerment and risk-taking. Although we’d like to think that parallels business, I don’t think it does at normal management levels.” Another remarked, “Team leadership in corporations is not as concerned with inclusiveness and knowing who the person is.” A third skeptic added, “There is next to no leadership in corporationsin general, corporate culture drives true leaders away. You see, corporations don’t want leaders. They want followers.”

Lessons from the online gaming world: Recommendations for organizations

Based on our study, we highlight six recommendations for leaders looking to increase their effectiveness in a distributed world:

1. *Apply virtual communication tools and facilitation techniques to more effectively connect people from around the world.* Collaborating in a global, virtual environment requires the ability for individuals to connect with one another. Technologies such as instant messaging, virtual white boarding and videoconferencing can enable realtime interaction, while e-mail and discussion forums can help individuals connect while their counterparts are offline. However, the tools themselves are only one part of the effort. To communicate effectively in a virtual environment, skilled leaders must know how to mediate conflict, draw individuals into the discussion and actively engage appropriate parties in the topic at hand.
2. *Use collaborative spaces to gather knowledge, express ideas and concerns and share passions.* Another key to collaboration among distributed employees is the creation of centralized spaces for organizing knowledge and ideas, enabling group meetings, brainstorming or simply “hanging out.” Providing a central location helps individuals avoid the fragmentation of information that often occurs in distributed organizations and creates a “center of gravity” that encourages individuals to participate and contribute.
3. *Spend more time on setting organizational context and communicating where the organization needs to go.* To create a compelling vision for the future with employees they are unlikely to ever meet in person, leaders need to provide context that enables people to understand their roles within the team and the organization. That sounds simple enough, but when employees are spread around the globe, come from many cultures and speak many languages, it takes some planning and effort to make everyone feel valued and part of the

team. Emerging communication channels such as podcasts and blogs can help communicate key messages across distributed environments and engage newer generations of employees in the strategy of the organization.

4. *Improve the visibility of both formal and informal skills.* In a global business environment, decisions need to be made fast. The leader who has data at the ready to enable the right people to staff the right projects will likely get the best results. While identifying individuals using a formal process is important, having information on more personal factors – interests, hobbies, culture and the like – can improve project team chemistry and help ensure the right blend of skills and personalities.

5. *Use dashboards linked to collaborative tools to capture key realtime information about people, activities and outcomes.* The dynamic global business leader needs to be able to constantly gather, integrate and broker information in realtime to quickly take risks, experiment, stretch the organization and evaluate results. Dashboards that pull data from the right sources at the right time to enable these decisions are increasingly critical to leaders operating in virtual environments.

6. *Provide more frequent guidance and link performance to recognition.* A key lesson learned from the online gaming world is the importance of rapid feedback and a close linkage between performance and incentives. In a virtual world, where people may not regularly engage with their direct manager, it is very important that employees receive regular input on their performance, including areas of strength and needed improvement. Further, recognition vehicles should be put into place so that individuals can more easily see how their actions contribute to the organization.

For each of these recommendations, Figure 5 shows the related improvement actions leaders can take, the technologies or innovations leaders can apply and the benefits leaders can expect from properly executed implementations.

Conclusion

Online gaming provides us with what we believe is a unique look into the future of tomorrow's organization. To succeed in a more global, faster-paced business environment, organizations will need to consider both the behaviors they are going to need their future leaders to demonstrate, and the tools and techniques leaders will need to master. This has a range of implications for organizations, from the design of leadership development programs to the prioritization of future IT budgets. By leveraging the lessons from online gaming environments, companies can gain a better understanding of the ways in which the next generation of leaders will need to operate in the future.

The journey toward globalization won't always be easy. But we believe, by implementing these recommendations, the game of global business will be more fun, leaders will gain an edge over their competitors, and the odds of seeing the "game over" message flash on the screen will be reduced.

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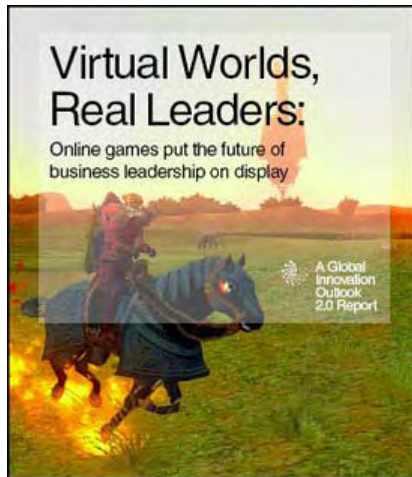
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Virtual Worlds, Real Leaders

Online games put the future of business leadership on display

“If you want to see what business leadership may look like in three to five years, look at what’s happening in online games.”

— Byron Reeves, Ph.D., the Paul C. Edwards Professor of Communication at Stanford University and Co-founder of Seriosity, Inc.

Game On

As the business world becomes more distributed and virtual, do online games offer lessons on the future of leadership?

What’s next? It’s the simple question that businesses spend millions trying to answer every year, all with the goal of learning what the business world of the future will look like. But there are some elements of this future that are already falling into place.

For example, we know that business is becoming increasingly global. We know that enterprises are increasingly distributed, faster paced, and fiercely competitive. And we know that more work will be conducted virtually, using technology to bridge previously impassable communications gaps.

All of which begs certain questions: What new skills and competencies will leaders need to succeed in work environments that are increasingly virtual and distributed? What types of training and tools can forward-thinking companies use to enable a new breed of leader that thrives in these uncertain environments? Are there people who already have these skills, or places where these new skills are being developed and refined?

Online games, and specifically massively multiplayer online role-playing games (**MMORPGs**)¹, offer a glimpse at _ how leaders develop and operate in environments that are highly distributed, global, hyper-competitive, and virtual.

Hundreds of thousands of players —sometimes millions— interact daily in highly complex virtual environments. These players self-organize, develop skills, and settle into various roles. Leaders emerge that are capable of recruiting, organizing, motivating, and directing large groups of players toward a common goal. And decisions are made quickly, with ample, but imperfect, information. Sound familiar?

“MMORPGs mirror the business context more than you would assume,” says Byron Reeves, Ph.D., the Paul C. Edwards Professor of Communication at Stanford University and Faculty Director of the Stanford Media X Partners Program. “They presage one possible future for business — one that is open, virtual, knowledge-driven, and comprised of a largely volunteer or at least transient workforce.”

Of course, online games do not provide a perfect analog for the business world of the future. The stakes in the real world are obviously much higher. But it’s easy to see how some of the qualities of gifted gaming leaders could translate into a corporate setting. The collaborative influence that online leaders exhibit is extraordinary in some cases. Gaming leaders are more comfortable with risk, accepting failure, and the resulting

¹ Massively multiplayer online role-playing games

iterative improvement, as part of their reality. Many of these leaders are able to make sense of disparate and constantly changing data, translating it all into a compelling vision. And the relationship skills of the best gaming leaders would put many Fortune 500 managers to shame.

“You can never stop earning the right to be their leader,” says Tom Cadwell, an MBA student at Kellogg School of Management and former employee at Blizzard Entertainment, the maker of **World of Warcraft**². “You always have to be sensitive to the concerns of members, and you always have to sell decisions you make. Goodwill from past successes doesn’t last forever.”

In a survey of IBM’s own internal gaming community, which includes more than 200 gamers, nearly half believe that game playing is improving their “real world” leadership capabilities; and four out of 10 say they have already applied MMORPG leadership techniques and approaches to improve their leadership effectiveness at work.

But the lessons that can be learned from MMORPGs don’t stop there. While studying the personal attributes of online game leaders is useful, perhaps more important is the role the environment plays in their development. Many of the qualities of online game environments facilitate leadership, and speed up the process of identifying leaders.

Most games make each player’s capabilities openly known, which eliminates much of the guesswork when assigning roles. They offer clear economies that provide for easily understood incentive programs. And the communications channels that are utilized by online gaming leaders are more sophisticated and varied than those in most workplaces.

While these games attract players of all ages, the first generation that grew up navigating these environments is beginning to enter the workforce in earnest, and managers will need to adjust their styles accordingly. Winning in business will require enterprises to fully understand how these games are shaping the next generation of leaders and to apply those learnings to their own operations.

THE UNSIGHTLY ACRONYM - What are MMORPGs, anyway?

The not-so-short answer is: massively multiplayer online role-playing games. For the purposes of the discussion that follows in this report, however, we’ll simply refer to this mouthful as “online games.” But there are important distinctions between just any game that can be played online and MMORPGs.

*MMORPGs are a unique and evolving area of online entertainment. They can bring together millions of different players who assume digital personalities known as **avatars**³. Within these online games, each of which is constructed with different rules and goals, players interact with each other, form relationships, join **guilds**⁴ or in-game corporations, and carry out complex and collaborative missions. Some of the more popular games include World of Warcraft,[™] Eve Online,[™] and EverQuest.[™] Virtual social worlds, like Second Life,[™] share many of the same characteristics as MMORPGs, and can develop leadership capabilities as well. But for the purposes of this discussion, we will be focused primarily on online games in which there are set goals and motivating factors.*

² WARCRAFT[™]: An MMORPG with over 8 million players worldwide.

³ AVATAR: A player’s online character.

⁴ GUILD: A popular term for a group of characters working together towards a common goal.

Serious Gaming

The what, why, and how of the gaming and leadership study.

Inspired by findings from the Global Innovation Outlook 2.0, IBM decided to delve deeper into these increasingly popular virtual worlds and to research whether real business lessons can be learned from observing leadership in online games.

Working with a group of GIO participants, domain experts and leaders from IBM's Research, Center for Advanced Learning, and Executive Development organizations outlined the primary focus area and key research questions to be explored in mid-2006. Consistent with the increasingly open and collaborative nature of innovation itself,

- IBM partnered with **Seriosity, Inc.**, a software company that develops enterprise products and services inspired by online games, to refine and execute this unique research. The subsequent study provided the basis for many of the findings in this report.¹

The study was led by

- **Byron Reeves**, Professor of Communication at Stanford University and co-author of *The Media Equation: How People Treat Computers, Television and New Media Like Real People and Places* (Cambridge University Press); and
- **Thomas Malone**, the Patrick J. McGovern Professor of Management at the MIT Sloan School of Management, Founder and Director of the MIT Center for Collective Intelligence, and author of *The Future of Work: How the New Order of Business Will Shape Your Organization, Your Management Style, and Your Life* (Harvard Business School Press, 2004).
- Both are board members of, and advisors to, Seriosity.

The strategy for examining games was both inductive and deductive. The goal of this dual approach was to roam freely within the online gaming domain looking for leadership moments and strategies, but also to be directed by a comprehensive model of leadership when making comparisons to real world behaviors.

The model selected to guide the analysis was developed by Deborah Ancona, Thomas Malone, Wanda Orlikowski, and Peter Senge at the MIT Sloan School of Management. The **Sloan Leadership Model** breaks leadership qualities and action into four parts: **Visioning, Sense-making, Relating, and Inventing**. This model has been described in a number of publications (most notably *Harvard Business Review*'s February 2007 article "In Praise of the Incomplete Leader"), and has been used as a basis for MIT workshops on distributed leadership.

With the Sloan Leadership Model as a guide, the study captured over 50 hours of in-world activity from five different games that were most representative in demonstrating leadership behavior in action. The team also reviewed 173 anonymous online surveys covering leadership in online gaming and conducted 10 one-hour interviews with prominent gaming leaders.

The researchers found all four elements of the Sloan Model were readily apparent in online game leaders, and this provided one aspect of the framework for the conclusions that were drawn.

Finally, a team from **IBM's Institute for Business Value (IBV)** built upon this research and surveyed IBM's Virtual Universe Community to better understand how successful leaders behave in online games and what aspects of the game environment leaders use to enable guild success.

Making Leaders from Lemmings

Environmental factors can facilitate leadership in otherwise reticent employees.

It's the classic nurture versus nature debate.

Are leaders born or are they made? There are compelling arguments to be made for both. But even the most die hard behaviorists would likely agree that by the time an individual reaches adolescence, leadership potential is either there, or it's not.

However a close look at leadership in online games tells a different story. Using massively multiplayer online games as a template, it can be argued that leadership is as much a by-product of environment as it is intrinsic.

Leadership happens quickly and easily in online games, often undertaken by otherwise reserved players, who surprise even themselves with their capabilities (see *The Need to Lead*, page 18). There is no reason to think that the same cannot be done in corporate settings of various sizes, missions, and markets.

However, this is not to say that every person within an organization can and should lead, but simply that if given the right tools in the right circumstance, leadership can emerge. And in working environments that are increasingly project-oriented, more leaders could yield better efficiency.

Three of every four players surveyed in the IBM study believe that the techniques and approaches found in online games could enhance their leadership effectiveness in the workplace.

So what is it about these gaming environments that make leaders out of lemmings? For starters, there are many opportunities to lead. Online games are very iterative.

While there is an overriding goal of the group, there are a series of **raids**⁵ or missions that make up the journey, each of which requires leadership of player groups of varying size. Spreading around the leadership wealth in this way provides the opportunity for many players to try on leadership roles, decide if leadership agrees with them, and pursue it further if so inclined. Also, there is no expectation of permanence in these leadership roles, an important factor that encourages experimentation (see *Impermanent Power*, page 22).

"I was approached by several friends to assume leadership of the guild, and agreed even though I was uncertain of my suitability," says one guild leader. "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."

Players in online games are also given tools that make leadership easier. The skills and competency levels of each member of a guild are readily apparent to a potential leader, making delegation a relatively straightforward task. And risk assessment tools provide real-time information in advance of any action, a luxury any corporate manager would love to have. The **incentive systems**⁶ that are used to motivate players are also openly available, which facilitates trust and credibility among players. This transparency of

⁵ RAID: A guild effort in war-oriented games that involves strategizing, attacking, and eventually toppling an enemy.

⁶ INCENTIVE SYSTEMS: Approaches used in online games to motivate and reward players based on performance and willingness to take risk

information is directly related to the Sensemaking element of the Sloan Model, in which leaders are able to understand the context of the world in which they are operating. It also breeds confidence in potential leaders, and reduces the guesswork in decision-making.

“Some tools that can foster this kind of confidence have emerged in business environments, with the adoption of business intelligence software that helps make sense of disparate information,” says Jim Sphorer, Director, IBM Research. “But there is also an opportunity to improve risk assessment (trending) software, and more transparent incentive and skill rating systems likely would be a significant step forward in most enterprises.”

Finally, the multiple levels of communication within the online gaming world give leaders many options when it comes to communicating with their direct reports. The Sloan Model refers to this as Relating, the act of developing key relationships within and across organizations. As a guild leader, mediating conflict and maintaining relationships is an important part of the job. As with companies, the personal dynamics of guilds can interfere with the mission of the group.

Stanford University Ph.D. student and Seriosity consultant Nick Yee studied this phenomenon as part of his research for *The Daedalus Project*, an ongoing study of online gamers (<http://www.nickyee.com/daedalus/>). “In any situation where people have different needs and motivations, conflicts will arise,” writes Yee. “Inevitably, the guild leader will be asked to become the mediator.” He goes on to say that conflict mediation can be time-consuming and, quite often, petty.

But through the use of various communications mediums, leaders can keep the mediation to a minimum. Instant messaging, online chats, web site forums, and voice over IP (VoIP) are just a few of the different communications mediums that are utilized over the course of a game. Each medium serves a specific purpose. For example, when communicating changes in the incentive system that affects the entire organization, a post to the online forum would be appropriate. When discussing a personality conflict with a player, perhaps a dedicated online chat would be preferred. When conducting a raid, real-time VoIP may be needed. In very complex or involved raids or missions, a leader may in fact use broadcast (VoIP), narrowcast (group IM), and microcast (IM) simultaneously to move the group toward their objective. The more methods of communication a leader has, the more opportunity exists to lead effectively.

In Summary:

Online gaming environments facilitate leadership through:

1. Project-oriented organization
2. Multiple real-time sources of information upon which to make decisions
3. Transparent skills and competencies among co-players
4. Transparent incentive systems
5. Multiple and purpose-specific communications mediums

The Need to Lead

The story of one gamer's unexpected rise to management.

Helen Cheng got her first taste of online gaming three years ago, when a friend invited her to join up with Star Wars Galaxies,[™] a game modeled after the epic movies. "I was pretty skeptical," she recalls. "I mean, fighting dragons in a fantasy world? Sounds kind of nerdy."

It took three days and Cheng was hooked. And her opinion of online gaming has changed considerably since then.

It wasn't long before Cheng moved on to World of Warcraft,[™] an online game that counts more than 8 million members. She quickly moved up the ranks of the game, and spent six months as a level 60 guild leader, the highest level of leadership in the game. Here are some of the leadership lessons Cheng, a Stanford graduate, took away from her gaming experience.

Q: Do you consider yourself a natural leader?

CHENG: No. I'm a pretty quiet person, actually. The first time I thought that I could be a leader was during a raid that involved 40 people. The raid went bad, and everybody died. The designated raid leader went silent. Everyone was waiting around for instruction, and the leader was just stewing. Finally, I pushed my button to talk and rallied the troops to revive one another and try again, mostly because I didn't know what else to do. It was me, this girl, talking to a room of 39 guys. And to my shock and surprise, everyone complied and we got going. That was a defining moment for me, and eventually led to me becoming a guild leader.

Q: What was it about the environment that made it easy for you to try on a leadership role?

CHENG: The speed at which things happen contributes a great deal to that. You don't have a lot of time, and decisions have to get made. Also, there are so many different forms of communication. You can send instant messages to anyone, or use a chat channel to communicate with your guild, or speak over voice over IP connection, even leave messages on the web site forum. These different communications mediums afford more opportunities to lead.

Also, the way a particular game is designed has a huge bearing on how easy it is to lead. There are decisions that the designer makes, like how many people will be needed for a particular raid, that will have an effect on leadership roles. If a guild leader has to build a team of 70 or 80 people, that's a recruiting challenge, and it requires a complex incentive system to motivate the guild. But if you only need 20 or 30 members in a guild, it provides more opportunity for leadership. The point is, you can change a simple mechanic within the game, and it has lasting effects on leadership.

Q: What is it like managing people that you never see in person?

CHENG: Not that different from real life. I've had my share of personality conflicts that I had to mediate. In my last guild, we had a raid officer that was extremely capable and knowledgeable. He was great at leading 40-man raids in real time. But he was extremely practical, and did not care about other guild members' feelings, or guild unity. On the other hand, we had a recruiting officer that was very friendly. He was very gung ho about building relationships. They often went head-to-head on issues. And I found it very difficult to mediate between them. So eventually I left to go raid with another guild that was more advanced.

Q: Kind of like climbing the corporate ladder?

CHENG: Something like that.

Impermanent Power

Contrary to traditional management strategy, business leadership can be temporary.

There is an unspoken understanding among those well-versed in management technique that once a strong leader has been identified, that person should be installed as a manager, regularly promoted based on performance, and given a steadily increasing amount of responsibility over an indefinite period of time.

Of course, this organizational strategy has come under criticism in the past, mostly because, as the Peter Principle succinctly states, it's a good way to elevate an employee to the level of their incompetence. For instance, it should not be assumed that just because an employee has demonstrated an aptitude for leadership in one set of circumstances, that same person will be an effective leader in all circumstances.

That's where the world of online games has the potential to teach the business world a strong lesson. In many online games, there is no expectation about permanence of roles.

Leadership roles are more ephemeral, lasting 10 minutes, 10 days, or even months at a time. Leadership is seen as a job that needs to be assumed in order to get a specific task done, not an identity that follows a player around forever.

This "temporary leadership" emerges as a result of the pace of play, and the project-oriented nature of online games. Because decisions need to be made quickly, and the cast of characters present during any given session is constantly changing, leaders are chosen quickly, on the basis of experience and skills suited to the task at hand.

The analog in the Sloan Model is Inventing, where leaders design new ways of working together to realize a vision.

Those leaders do not expect to continue to lead the group beyond that particular mission, and they understand the very real possibility that tomorrow, they will be followers. And decisions on who will lead and who will follow are made organically, by the group itself, rather than coming from some higher authority.

The implications of this for corporate settings are obvious. Given the rapid pace of change in today's global business environment, the need for this kind of leadership flexibility is apparent.

That means not just promoting leaders that are flexible, but having the option of swapping leaders in and out, depending on the task, the time frame of a project, and the skill sets of the available team members.

That is not to say that long-term leadership stars don't and shouldn't emerge in this environment. Some gamers (and certainly business managers) with exceptional relationship skills are able to build effective teams, delegate leadership responsibilities to their lieutenants, and keep a large group of direct reports moving in the right direction for extended periods of time. In the Sloan Model, this is called Visioning, or the ability to create a compelling vision of the future. Some leaders yearn for this kind of role, and fight to hold on to it. But for others, leadership can be tiring and lead to burnout. Especially during trying times. One gaming leader that was interviewed in the study found himself dealing with interpersonal conflicts for several hours each night. He created an alternate character so that he could play without acting as a mediator of disputes. That scenario lends itself to dynamic, shifting roles of leadership that continually change as a group develops.

In Summary:

In fast moving distributed environments, leadership can be:

1. A temporary phenomenon
2. Task-oriented
3. Dynamic and constantly changing

The Freedom to Fail

Risk-taking and the ability to make decisions quickly are critical leadership skills.

Some elements of the online gaming world, like its project-oriented structure or the transparency of skills and incentives, are relatively easy to replicate in business environments. Others, like the inherent tolerance for risk in games, are far more challenging to implement when it comes to the real world.

But the issue of risk tolerance is highly relevant in today's fast-paced business environment, one in which rapid turns of innovation can mean the difference between financial success and failure. Businesses of all sizes, but especially big ones, struggle mightily with the need to evolve quickly and out-innovate their competition. Ironically, embracing risk in the enterprise is itself a considerable risk. There is an ingrained fear of failure that holds many corporate employees back when it comes to taking big risks that could yield big rewards. Online gamers do not share this fear.

In the online gaming world, risk-taking is encouraged. It is even considered a necessary precursor to success.

Leaders formulate strategies quickly, with imperfect data, and put their strategy into motion without fear of consequences. Yes, it is only a game. And more often than not there is no real money (and certainly not life) on the line.

But to assume that there is nothing ventured would be a mistake. Many games have severe penalties for failure. These setbacks can range from time-wasted to squandered status, all of which affect the enjoyment of the game. Millions of dollars are not riding on each raid, but try telling a hardcore gamer that failure doesn't matter.

There is another reason risk is tolerated in online games. The structure of the games is such that failure is accepted as a cost of doing business, rather than a permanent black mark or a career killer. Whereas the Sloan Model refers to Inventing, this trait of games might be called "re-inventing." True innovation requires trial and error, iterative approaches to solving big problems. This is understood in the online gaming world. But business environments in which this tolerance is not afforded will certainly suffer under the weight of their own conservatism. And employees who feel they cannot make mistakes and take risks will provide little in terms of innovative value.

There are interpersonal risks in online games and businesses as well. It's called politics. Working to impress the right people with an eye towards promotion or other benefit can be just as destructive as operating out of a fear of failure. In online games, perhaps because players are represented as avatars and are not face-to-face with each other, heated disagreements are common and accepted. Players even claim to become desensitized to group conflict over time. Perhaps this kind of passionate honesty has a place of value in the modern enterprise as well.

"I've learned that guild and other leaders are just as human as the rest of us, and they often need our help as much as we need theirs," says David Abecassis, Product Designer at Seriosity, Inc. and former President of the Stanford Gaming Society. "I have tried in my personal and business life to be mindful of the strain that is often placed on leadership, and to be as helpful to well-meaning leaders as possible."

Next Steps to Consider

Psychologists and sociologists are already conducting research in virtual worlds in an effort to better understand human nature. That is why IBM is applying the lessons it has learned from online games to its own business and providing related solutions to interested organizations. And there are a number of basic lessons we have learned from our early efforts.

For example, from an organizational perspective, breaking major operations into smaller projects and assigning leadership for those projects based on expertise allows for more employees to try their hand at leadership. It also allows for more temporary roles that can frequently shift based on who is performing. As a result, employees that are simultaneously leading in one project and following in another will develop a more complete understanding of effective leadership.

Smaller projects also allow for more failure, and the ability to tackle big problems in an iterative fashion. Encouraging employees to make mistakes has its obvious drawbacks, but instilling the confidence to try new things has benefits that far outweigh the risks. Breaking projects up into bite-size pieces makes failure more palatable, and more affordable.

From a technology perspective, giving leaders tools to make effective decisions is nothing new. But in the last ten years, business performance management software and business intelligence software has taken a quantum leap forward, providing real-time statistical analysis of a business directly to an executive's desktop. But there is still work to be done as business intelligence works its way deeper into the enterprise. And it is critical to deliver the right information to the right people, because too much or too little data can result in major inefficiencies.

Finally, embracing emerging communications and Web 2.0 technologies gives leaders more ways to communicate, which in turn allows them to be more effective communicators. Many corporations tend to play it safe when introducing new tools and applications that promote greater transparency — a misguided grasp for control that will ultimately be lost anyway. Not so long ago, email was once resisted due to concerns about productivity and security. Today it is hard to imagine doing business without it.

It's not a stretch to think resumes that include detailed gaming experience will be landing on the desks of Fortune 500 executives in the very near future. Those hiring managers would do well to look closely at that experience, and not disregard it as mere hobby. After all, that gamer may just be your next CEO.

For more information on the GIO and the potential connections between gaming and leadership, please visit www.ibm.com/gio.

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1 "Leadership in Games and at Work: Implications for the Enterprise of Massively Multiplayer Online Role-Playing Games," B. Reeves & T. Malone, with N. Yee, H. Cheng, D. Abecassis, T. Cadwell, M. Abbey, J. Scarborough, L. Read and S. Roy. Seriosity, Inc., Palo Alto, CA (2007)

GIO Podcast Series: An Innovation Conversation about the future of work

Transcript Title: MMORPGs, the Future of Work and Distributed Learning

Date: June 2007

Podcast Length: 9:37

Summary: Thomas Malone, Patrick J. McGovern Professor of Management at the MIT Sloan School of Management, and the founding director of the MIT Center for Collective Intelligence speaks about studying the emerging modern leadership trends that are being expressed and developed within online games. A summary of the study, ***Virtual Worlds, Real Leaders*** is a Global Innovation Outlook 2.0 Report.

Host: Amy Hermes, Global Innovation Outlook, IBM

HERMES: Hello, and welcome to The Global Innovation Outlook Podcast Series, where IBM demonstrates the innovative value of collaboration. My name is Amy Hermes, and today I'll be speaking with Thomas Malone, who's the Patrick J. McGovern Professor of Management at the MIT Sloan School of Management, and the founding director of the MIT Center for Collective Intelligence. Thanks for joining me today, Tom.

MALONE: Thank you. It's a pleasure to be here.

HERMES: Earlier this week, I spoke to Tony O'Driscoll at IBM about a Global Innovation Outlook study that was completed this past year with Stanford, MIT and a startup known as Seriosity, to study the emerging modern leadership trends that are being expressed and developed within MMORPGs, or Massively Multiplayer Online Role Playing Games.

So your work is about the future of work and distributed leadership. What did you learn from the study that informed your research?

MALONE: I think one of the most important changes that I see in the future of work in general is a shift toward much more individual freedom in business. In fact, I think this shift toward more human freedom in business is likely to be, in the long run, as important a change for business as the change to democracies was for governments.

Now, I think Massively Multiplayer Online Role Playing Games illustrate this point in the sense that people in these games do have a lot of freedom to make a lot of choices and decisions for themselves as they play the games.

As you know, one of the things we studied in these games was how leadership arises and manifests itself in these MMORPGs, and one of the things we found was that there are some important properties of the environment in these games that make leadership easier, in a certain sense, to do.

For instance, these games provide people, in many cases, enough information about the different choices they could make and the effects of their own actions that they can more often decide for themselves what to do instead of waiting for a boss or a manager or a guild leader to tell them what to do.

HERMES: What do the findings from a study like this mean for the enterprise of the future?

MALONE: Well, we think that the kinds of things that are happening in these MMORPGs are in a certain sense a kind of forerunner or early harbinger of things that are going to become more common in many parts of business and many forms of leadership in the future.

So for instance, these games already have highly virtual environments -- that is, environments where many of the players may never even meet each other in person and where essentially all their communications are conducted online in some kind of virtual form whether that's by text or by voice or some other electronic connection.

Most real world organizations today have some mix of and virtual communication of various sorts. But most real world organizations are moving towards a higher percentage of virtual or electronic communication relative to face to face.

So in that sense, for example, the games give us an early look at how things may be different in many other aspects of business.

HERMES: So how will leadership in large enterprises like IBM, for example, how will they change, and what does it mean for companies like this?

MALONE: Well, we think that one of the things that's likely to happen in large companies -- IBM and many others -- is that the electronic environment will allow these companies to design settings or environments in which people can make more decisions for themselves, and they'll have the information they need to know what the effects of their actions would be and what possible actions they could take.

And we think that this will then make it easier for a lot of people to lead themselves in a certain sense -- to create self-organizing teams or self-organizing groups. And it will make it easier for official leaders in these organizations to do what they need to do because people will be able to manage themselves to a greater degree.

HERMES: Well, what's difference between controlling and commanding resources and organizing people around value? Do you think this should be managed by a corporation?

MALONE: Well, one of the slogans I like to use is that we need to move from the traditional view of management as command and control to a much more flexible view of management as coordinate and cultivate.

Now, by coordinate and cultivate, I don't mean the opposites of command and control; I mean the broader set of possibilities of which command and control is just one extreme possibility.

People who are good at coordinate and cultivate management are good at adjusting their own management style and their own leadership behavior according to the situation. In some cases they may be very top down and directive; in other cases, they may be very bottom up and facilitative. And people who are good at this style of management are good at moving back and forth along that whole spectrum as the situation calls for.

HERMES: How does leadership work in a volunteer environment?

MALONE: Many people think that today's organizations are not volunteer organizations, but in some important ways even many businesses are volunteer organizations. They're volunteer in the sense that at least some of the people there don't have to be there to make money to support themselves.

For instance, in the nineties when so many Microsoft employees were millionaires from their stock and stock options that Microsoft was a kind of volunteer organization.

And in many companies today most of the professionals may be there in part because they need to earn money to earn a living. But their actual dedication and commitment and engagement in their work depends on much more than the dollars they earn.

So to actually engage the creativity and the energy and the intelligence of many knowledge workers, many professionals, one needs to manage them in somewhat the same way that leaders of volunteer organizations need to engage people by finding visions, by finding goals for the organization that capture the energy and the interest and the sense of meaning that people in the organization have.

HERMES: I know that you were one of the two founding co-directors of the MIT research initiative called, *Inventing the Organizations of the 21st Century*, which is about understanding emerging ways of working and how to invent entirely new and more effective approaches and putting them into practice. Is there anything from this gaming study that helped you shape new thinking in this area?

MALONE: Well, we think the gaming study is a very interesting opportunity to look at how things are changing, to learn lessons from online games that help us

understand how business will be different in the future.

We found, for instance, that these online games give more people more opportunity to make decisions for themselves, which is something we think will become more common in the organizations of the future.

We found that these online games include many features in the environment like online economies that give people signals about what they need to do. These online games provide various kinds of virtual currencies that can be used not only to buy and sell assets in the games like swords, or costumes, but these online currencies can also be used by the guild leaders and other people you might think of as managers or leaders in the games.

These currencies can also be used by them as a way of motivating and providing incentives for people to play important roles in the teams -- often called guilds, for example.

So we think this is one example of a kind of organizational structure or organizational process that's likely to become more common in the real business organizations of the future.

HERMES: So after this study, what's next for us to look at in this area?

MALONE: One of the things I'm very excited about is the topic that we call collective intelligence. I think that in a certain sense collective intelligence has existed for thousands of years, at least as long as there have been humans.

But I think that in the past few years we're beginning to see examples of things that never existed before. I think of Google, for instance, as an example of collective intelligence.

And by this, I don't just mean Google the company; I mean the whole system of which Google is a part, that is, the millions of people around the world creating Web pages and linking those Web pages to each other, the Google algorithms that analyze those Web pages and their link structures, the Google technology on which those algorithms run.

All those things together combine to provide amazingly intelligent answers to the questions we type in to the Google search bar.

At the opposite extreme is Wikipedia. In this case, what I think is really surprising, is the organizational design or the organizational structure that allows [audio recording ended here. I didn't hear the rest of what is transcribed below ...]thousands of people from all over the world to collectively create a very large scale and very high quality thing that is an online encyclopedia, but to do that with almost no centralized control and as volunteers.... So I think the organizational design that's made that possible is truly amazing.

In fact, the question we ask ourselves in the MIT Center for Collective Intelligence, is how can people and computers be connected so that they act more intelligently than any person, group or computer has ever done before?

HERMES: Tom, thank you so much for your time. I really appreciate you getting involved in doing a podcast today.

MALONE: Well, thank you.

HERMES: For more information about the Global Innovation Outlook and this gaming study, please visit www.ibm.com/gio.

GIO Podcast Series: An Innovation Conversation About Gaming And The Workplace

Transcript Title: Playing Games at Work

Date: June 2007

Podcast Length: 9:06

Summary: Byron Reeves, a professor at Stanford University's Department of Communications, the faculty director of the Stanford Media X program and co-founder of a startup called Seriosity talks about gaming environments and how they can be applied to the work place.

Host: Dan Briody, Global Innovation Outlook, IBM

BRIODY: Hello, and welcome to The Global Innovation Outlook Podcast Series, where IBM demonstrates the innovative value of collaboration. My name is Dan Briody, and today I'll be speaking with Byron Reeves, a professor at Stanford University's Department of Communications, and the faculty director of the Stanford Media X program.

Byron is also the co-founder of a startup called Seriosity, a company that develops solutions to help businesses improve collaboration, communication and motivation through the use of gaming principles. Byron, welcome.

REEVES: Thank you, Dan. Happy to be here.

BRIODY: Now, Bryon, what relevance do games have in the workplace?

REEVES: Well, the one we're most interested in right now is the very significant collaboration that is required to do well in any of the games, so we really need to differentiate those games where I do well because I have a particular skill -- I hunt things, shoot things, and I get points for it -- versus these complex, multiplayer games where I don't do well unless we do well.

BRIODY: Now, most managers spend at least part of their time trying to get employees to play fewer games and do more work. So how do you go about convincing old school business managers that this is a viable concept, that bringing gaming principles into the workplaces is something that is going to be valuable to the company?

REEVES: I think we can make two lists of things that we could steal from the games. One list would be the obvious things... Dungeons and Dragons, the pictures, the shooting, the loud sounds, the Hollywood, the entertainment value of the games, the narratives, et cetera. So that's one list and there may be something in that list that are very important for the enterprise.

The other list that's more subtle and maybe even more significant... so the different ways in which collaborative groups are formed, the different communications channels that they have in the games.

The incentive structures in the games. The points. The leveling. The way reputations are handled in the games, namely that they're transparent and persistent. The economies of the games. The ability to trade virtual currency and to get digital assets.

And so all outside of the narrative and the skin of the game, that is really interesting and I think should be very familiar absent the Dungeons and Dragons pictures, be very familiar to anybody trying to manage a collaborative group.

BRIODY: Now many companies sort of view transparency as a bad thing and are a little bit fearful of their employees having too much of a view into how the organization is working.

That's got to be a difficult construct to break down, and that's something that gamers are very familiar with, right?

REEVES: It is. This is a new generation that has a different idea about what is private and public, a different idea about the trade off between transparency and value. And yes, if you and I are having a relationship and I'm competing with you it is in my vested interest to know everything about you and not have you know anything about me [LAUGHTER].

That seems pretty obvious. But when we're collaborating and we actually need to share information there's a great value in you being transparent and in exchange for that I have to do the same. And that's not only in a personal relationship with a single individual but it's across large work groups in a company.

It's one of the things that's really kind of magical in the games. If I'm part of a guild that does things together, goes on raids, solves puzzles, what not, in that guild it's very important that I know exactly the talents of everybody else involved, that I know how I'm going to be rewarded, where I rank relative to other people... and that there's a great value in that.

But it's a good question. There is a tension between the trade off, the value of transparency and the fear of actually losing control.

BRIODY: You started to talk about this a little bit. Let's talk a little bit about specific examples of how gaming environments can be applied to the work place either examples that you've seen in the real world or hypothetical examples.

REEVES: Well, one I'm particularly interested in now is the game economies. So almost all of the games, the complex multi player games, this is World of Warcraft, Star Wars Galaxies, Eve Online, Everquest, have an economy where virtual currency can be traded.

And progress in the game can be tracked in relation to that currency. So I might sell you a sword, or a shield, or indeed an entire character. I might buy game pieces from you. I might reward you for a collaborative action with this currency.

And it's treated very lightly. But it's important. And it's tracked, and you can actually see where people are relative to the currency, who's got more of it, who's got less of it.

And it's also traded moment by moment. So we're able to reinforce action very quickly. If I need some information from you I can say, here's 10, I'd like to know this. Or I might even say, nice hat, here's five units of currency.

That economy can actually be dropped on the enterprise in places that currently don't have the value of a market system. And that economy can actually go to work to allow us to reinforce each other, to signal each other as to the value of information that we might have. And to collaborate and share the rewards of collaboration in ways that currently aren't available.

BRIODY: Now, some people may argue that economy already exists. We get rewarded in monetary terms for the job that we do. Would you be suggesting that this kind of economy would replace that monetary reward? Work hand in hand with

REEVES: Totally parallel to the dollar economy. So the dollar part of my economy as a professor in a university here is determined annually and I get feedback on the work of that year.

What happens in the games is that moment by moment, I try out a sentence, I try out this particular idea, I send you an idea for a new sales tool, or I'm trying to put currency on information. Things that are happening moment by moment I'm getting reinforcement for and we're actually bringing a quantitative market system to a place in business that really doesn't have one right now.

BRIODY: Now, what kind of effect would these gaming constructs have on leaders in the business world... both positive and negative. What do you think the impact or the implications for business leaders would be?

REEVES: Two different answers for the potential leaders and the current leaders.

One of the things that happens in a game that I think would be a little disruptive with respect to current leadership is that the games actually become meritocracies with all the information that's available on how people are doing, the fact that it's a computing system that can keep track of how long you spent, how well you did.

So, you really have a lot of information that can actually be used to signal to the entire group that some people are doing well and others aren't. Some people have led well and other's haven't.

And so one of the things that's happening in leadership there is that it's really changing the timeframe of leadership. First of all, leadership is very much accelerated in the games. It's something that we may take turns doing.

I may do today or this hour, and you might do the next hour, very different from current notions that leaders are nurtured and have established positions that endure over the course of years.

I think that's really different in the games that leadership is something that happens quickly and that we really come and go from.

And I think if you look at it from the other angle of someone aspiring to be a leader, the experience that the gamer generation has in the context of these games, is that I can do that.

I've been practicing it, which is quite possible in the games. It looks as if to people who are just beginning as if they can actually aspire to being in a leadership position and have a good prospect of actually achieving that relatively quickly

BRIODY: Now all of this begs the question -- Byron, and you and I have talked about this before. Is it possible by infusing these gaming constructs into the workplace, work could actually become more fun?

REEVES: I think that was the original idea that we had when we were thinking about Seriosity and the research here at Stanford, is that the entertainment value, the engaging, involving characteristics of media, whenever they're allowed to be loose beyond the traditional entertainment forms that we think of, going to the theater, watching television, opening up a board game, et cetera...

Whenever those sensibilities get loose in serious contexts, some interesting things happen. So we started thinking about just in the game world, I think there was a lot of thought initially, well, we could take the games to the places where people are being trained, where they learn. And maybe it wouldn't be so boring.

And that in fact I think is the case. And but what I think is really the Holy Grail here is that we could also take them and rebuild the places where people actually conduct their work. And since those places are very much controlled by computers now, or are screens attached to computers, the prospect of doing that is pretty good. And the prospect of fun winning is pretty high.

BRIODY: So then I guess we can't call it work anymore at that point?

REEVES: Yes, one caveat on that, though. But it's not fun in the sense of a party and yuks and jokes. It's fun in the sense of a feeling of involvement, engagement, personalization.

But that kind of concentration and engagement... so that's the sense in which I mean fun. I mean, there is really a science of fun. By fun I don't mean necessarily just laughing and joking.

BRIODY: Byron, thanks so much for joining us on this Global Innovation Outlook Podcast. For more information on the Global Innovation Outlook, please visit ibm.com/gio.