



Book Changing the Game

How Video Games Are Transforming the Future of Business

David Edery and Ethan Mollick
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Recommendation

Video games are so commonplace that you probably don’t see them as a launching pad to the next frontier of innovation, but David Edery and Ethan Mollick will make you think twice about that. They present an eloquent, persuasive case for the enormous potential that video games have to transform business. The authors illustrate the way that a growing number of organizations are utilizing virtual worlds to advertise their goods and services, train their workers and attract potential employees. They’ll amaze you as they recount how rapidly video games have progressed since *Pac-Man* and *Space Invaders* first appeared in bowling alley arcades. *BooksInShort* applauds the authors’ scholarship and research, and their ability to illuminate this topic for a corporate audience. Anyone involved in technology innovation, or personnel training and management, could learn a lot by playing along. Video games are serious business and they generate serious money.

Take-Aways

- Many businesses are beginning to incorporate video games in their work.
- No definitive evidence links video games to violent behavior or childhood obesity, despite disapproving voices that contend otherwise.
- Companies use “in-game” and “around-game” advertising to promote their products.
- “Advergaming” incorporate the advertiser in the action of the game.
- Simulation games have proven effective in helping doctors reduce medical mistakes.
- Many companies use video games to recruit potential employees.
- Video games for workplace training must be entertaining and informative; finding the proper balance between those two elements is the challenge.
- Video games teach employees the three fundamental skills required in an “interconnected world”: teamwork, systematic thinking and virtual learning.
- Smart companies take advantage of their relationships with passionate “user communities” and interest groups.
- Video games can address complex problems by linking many people together.

Summary

Riding the Video Game Wave

Video games aren’t just for kids – or even just for adults who enjoy acting like kids. Many businesses are beginning to recognize the benefits of incorporating video games into their daily practices. Companies can use games to promote their products and services, improve customer relationships, recruit talented employees and raise workplace performance. For instance, surgeons who use video game simulators while training in medical school make fewer mistakes in the real world. Microsoft uses games to entice employees to volunteer for boring yet necessary tasks.

“Games, and most especially video games, not only belong in the workplace but can make all the difference between success and failure.”

Video games are a huge business. They generate more income than “Hollywood box office revenues.” Microsoft video heavyweight *Halo 3* earned \$170 million in the U.S. within a day of its launch, surpassing the movie debut of *Spider-Man 3* and the release of the novel *Harry Potter and the Deathly Hallows*. Video games permeate multiple aspects of society, yet many managers find the notion of “games” in the workplace unacceptable. Nonetheless, properly utilized video games have enormous training potential and can help ensure organizational success. Video games foster highly prized workplace traits, like teamwork, innovation and problem-solving ability.

“More than any other industry, video game companies have succeeded in harnessing the positive aspects of user innovation.”

Almost everyone has played a video game – whether poker on a PC or bowling on a Nintendo Wii. That’s important because “games must be played to be truly understood, or, at the very least, they must be carefully observed.” Millions play games casually while millions more participate passionately. Games such as *World of Warcraft* have hordes of paid subscribers who spend hours strategizing and executing elaborate battle plans while teaming up with fellow players worldwide. *World of Warcraft* requires players to perform routine tasks repeatedly – something that is typically difficult to reinforce in the workplace. Popular video games also foster the growth of online communities where motivated players interact creatively and even develop new content. Any company would welcome that type of employee initiative.

“In any game, players are rewarded for learning the rules of the game and applying those lessons properly.”

Despite games’ upside, some critics, such as the American Psychological Association, take video games to task for perpetuating violence and contributing to childhood obesity. However, other organizations, such as the American Sociological Association, state that no link exists between video game violence and crime. In fact, British Board of Film Classification research suggests that movies and television cause more hostility in viewers than video games. And, no evidence indicates that overweight children spend any more time playing video games than they spend watching TV or surfing the Internet. Actually, some observers hope that the Nintendo Wii console, which requires active physical participation, may help combat the U.S. obesity epidemic.

Boon for Advertisers

Smart companies have learned to take advantage of the powerful advertising offered within video games. Banner ads greet players who visit Web sites featuring free games. These “advertisements around games” are similar to ads that run before movies, on TV shows or in newspapers. They’re not cutting edge, but they reach huge audiences and they are relatively easy to design and execute.

“Learning is not ‘work’ in the context of a game – it is puzzle-solving, exploration and experimentation.”

“Advertisements in games” tend to be more compelling and effective. The landscape in a video game might include virtual billboards advertising popular soft drinks or automobiles. In *Tom Clancy’s Splinter Cell: Pandora Tomorrow*, the main character uses a Sony Ericsson cell phone. Some advertisers go one step further and make their products an integral part of a video game’s plot, just as the movie blockbuster *E.T.* incorporated Reese’s Pieces candies. Such “highly integrated product placements” are expensive since, as primary components of the games, they must be included in the early stages of development. That means advertisers make serious financial commitments months before the games are released. In-game advertising requires careful thought and planning. Your brand must be a good fit. You want players to have a positive association with your product, so avoid promoting your brand at the virtual site of a massive earthquake or nuclear accident.

“Far-sighted companies are using games to recruit, train, motivate and make employees more productive.”

“Advergaming” are the ultimate in-game ad vehicle. Gaming firms can design games around particular products and make the games available to the public for free. Chrysler, for example, spent “well under a million dollars” in 2001 on a game where players drove off-road Jeeps through a jungle. Vehicle sales beat expectations by more than 300%.

“Creating a balanced recruiting game takes time and iteration. Don’t expect to create something perfect on the first, second or even third try.”

Cereal companies and fast-food restaurants also have done well boosting sales with interactive games. Virtual worlds, such as *World of Warcraft*, encourage players to remain “engaged with a brand.” In *Virtual Laguna Beach* and *vHills*, based on MTV Network’s hit shows, visitors can shop for clothes like those worn by TV characters. Such “adverworlds” foster connections with real-life products and should promote interactive behavior among players.

Games Make Learning Fun

Video games provide more than entertainment. They can inform, educate and instruct. For example, a man with no medical training was able to give life-saving first aid at a car accident scene because he learned the right procedures playing the video game *America’s Army*.

“Simulations can give employees real experience, even if the simulations take place in virtual worlds.”

A growing number of organizations now use video games to train employees and recruit talent. U.S. companies invested more than \$46 billion in corporate training in 2006, but spent only a minor percentage of it, \$150 million, on training games. Part of the problem is that early educational video games were primitive and boring, so educators disregarded them and believed they could have little impact on learning. However, recent studies show that employees respond more favorably to video training than to classroom instruction. Game researcher Bill Ferguson developed a concept that educational games should be “Eighty Percent Fun.” Then they only need to be 20% as “efficient” as traditional classes, since employees “willingly learn outside of formal training.”

“Choose a level of simulated detail that accomplishes your goals without going overboard on extra realism.”

Ideally video games should motivate employees to train voluntarily, so developers struggle to create games that are both entertaining and effective. Sun Microsystems, which prides itself on being a cutting-edge organization, teaches thousands of workers, many of them home-based, about its culture with a video game called *Rise of*

the Shadow Specters. The game places Sun employees in a virtual city that's been invaded by aliens. As they battle the enemy and restore the city, players learn about the company's values, culture, business divisions and technologies while getting the clear message, "Sun is a cool company to work for."

"Games in the workplace are most effective when players want to win because winning is fun, not because losing hurts."

Fun is a vital in any training game, but instruction is the ultimate goal. Companies use selected video games to teach employees three essential skills they need to excel in an "interconnected world":

- **"Working in teams"** – The extent to which team members communicate and interact greatly affects the outcome of creative projects. In *Everest*, players work in teams of five to overcome illness, horrible weather, personality clashes and conflicting objectives to climb the world's tallest mountain. Games like *World of Warcraft* can boost leadership skills. Games can cut across hierarchies and teach organization, assertiveness and delegation. Often, people can transfer principles learned in fantasy games to their work. To maximize the game experience, have an "outside observer" critique players' performance.
- **"Thinking in systems"** – Managers often misunderstand the consequences of their actions and underestimate the importance of interpersonal relationships. They focus on their duties and decisions without seeing the overall picture. For example, a salesperson in the field may place additional orders without regard to the company's production capabilities. Two Harvard Business School professors designed *Uptick*, a game that shows students how market realities affect investment theories.
- **"Learning from virtual experience"** – Overwhelming evidence suggests that professionals benefit greatly from playing simulation games. Doctors perform better, truck drivers have fewer accidents and businesspeople deal more efficiently with their colleagues and clients.

Playing the Recruiting Game

For the past few years, the U.S. Army's Web site has promoted the wildly popular game, *America's Army*, which significantly improved the Army's image among young, eligible males. The game, free on the site, places players on the battlefield – but only after they have completed the proper training. Basic and advanced training scenarios, including drills, illustrate the realities of Army life and may encourage or discourage potential soldiers from enlisting.

"User innovation communities will appear around your product whether you like it or not."

To recruit through games, you must present a realistic picture of your company so you attract candidates from your target audience. The idea is to pique the interest of potential employees while filtering out those who lack basic qualifications. Effective recruiting games are challenging to design, and must strike a balance between being fun to play and achieving corporate objectives. French cosmetics giant L'Oréal uses an online game, *e-Strat Challenge*, to test the business acumen of thousands of students worldwide who seek careers in the beauty industry. Working in teams of three, players manage competing virtual cosmetics companies. They must weigh production, research, marketing and design decisions. Ultimately, L'Oréal invites 16 teams to Paris for the final round and gives the winning team a "free trip anywhere in the world." L'Oréal has hired 200 employees through *e-Strat* and 400 more using additional games.

A Passion for Innovation

Whether it's video games, baseball cards, Corvettes or Pez dispensers, people love exchanging ideas with those who share their passions. Video games inevitably spawn communities of users whose enthusiasm creates a platform for enhanced communication and content innovation. Fans of *Battlefield 1942* voluntarily invested more than 1,000 hours modifying the popular game.

"Though many companies don't recognize it, user innovation turns out to be one of the most important sources of breakthrough innovations."

On the other hand, years ago a community of clever users (dubbed "phone phreaks") figured out how to "manipulate" the system to get free long-distance calls from AT&T. Such theft is exactly why many firms see user communities as a threat. AT&T's legal pursuit of the hackers merely emboldened them, leading to a long, damaging legal battle. Video game companies are exceptional in their willingness to embrace user communities. Many game developers assign managers to oversee user communities and encourage positive, instead of negative, innovation. Deal honestly with your user groups. Give them good toolkits and online discussion forums so they remain engaged and interested. You don't have to reveal every secret, but provide an avenue for users to access your product.

Answers in Cyberspace

Games have the potential to unlock the answers to highly complex dilemmas. "Distributed innovation games" are intended to spark the creative problem-solving powers of individuals outside of a company – or even an industry. People who are not in a particular field may see things in new ways and provide innovative solutions.

"More lifelong game players have entered the workforce, so the idea of using games for teaching no longer seems quite so odd."

In the game *Foldit*, players attempt to manipulate pieces of a protein into shapes that will be most effective against particular diseases. Although you might expect scientists to get the highest scores, game designer Seth Cooper says the most successful players "don't have any biological, or even academic, background at all." Cooper and his colleagues plan to continue taking advantage of gifted players' volunteer efforts by designing games that will provoke ideas to help develop "biofuels and vaccines." In 2007, *World Without Oil* invited players to cope with the fallout from an oil shortage. The game demonstrated how participants handled the crisis without waiting for government help. Such video games have an extraordinary potential to connect people through cooperation, creativity and intelligence. Many organizations already capitalize on that power, but they're only scratching the surface. The real revolution in gaming lies ahead.

About the Authors

David Edery is the Worldwide Games Portfolio Manager for Microsoft's Xbox Live Arcade. **Ethan Mollick** studies innovation and entrepreneurship in the game industry at MIT's Sloan School of Management.

