

Why Video Games Are Good For You

By Scott Steinberg

Nearly 40 years since their inception, the majority of media attention still focuses on the negative or controversial side of video games. With 91% of kids now gamers according to the NPD Group, and more children aged 2-5 able to play computer games and smartphone apps than ride a bike or tie their shoelaces, concern is understandable. But the truth that audiences seldom hear is that the vast majority of software titles are perfectly safe and fun for families, and capable of impacting them in positive ways.

Happily, as a growing number of parents, educators and even corporate leaders are realizing, there are many benefits that contemporary interactive entertainment choices provide. Certainly, many popular titles today, including contentious franchises like *Call of Duty* and *Grand Theft Auto*, are rated M for Mature, and intended for discerning adults. Not only is it worth remembering that the average age of today's player is 37 and

nearly three times as many adult women game as teenage males, though. (Directly refuting outdated stereotypes that portray gamers as basement-dwelling adolescent introverts.) It's also vital to note that most games are perfectly viable for a wide range of ages, and still manage to be fun and engaging without resorting to foul language or violence.

"Games can definitely be good for the family," says Patricia Vance, president of The Entertainment Software Rating Board (ESRB), which assigns video game ratings. "Oftentimes I think parents feel that they're not because video games in the media are portrayed as violent, and hardcore games tend to get the lion's share of publicity. But parents also



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need to be comforted knowing that E for Everyone is by far largest category [of software]. Nearly 60% of the almost 1700 ratings we assigned last year [fall into this category], which means there's a huge selection of games available that are appropriate for all ages."

Many video games have redeeming qualities – including, sometimes, even those with violent content. Following are a number of different ways that titles for all systems can benefit kids and adults alike, several every bit as surprising and delightful as the interactive adventures they're featured within.

ENHANCED LEARNING AND EDUCATION

A recent study from the Education Development Center and the U.S. Congress-supported Ready To Learn (RTL) Initiative found that a curriculum that involved digital media (e.g. video games) could improve early literacy skills when coupled with strong parental and teacher involvement. Interestingly, the study focused on young children, and 4- and 5-year-olds who participated showed increases in letter recognition, sounds association with letters, and understanding basic concepts about stories and print.

The key to this study was having high-quality educational titles, along with parents and teachers who were equally invested in the subject matter. That way kids could discuss and examine the concepts that they were exposed to in the games. Also interesting is the value that video games are proven to have even for very young players. A study by the Education Department Center further found that low-income children are "better prepared for success in kindergarten when their preschool teachers incorporate educational video and games from the Ready to Learn Initiative."

Older children such as teens and tweens can benefit from gameplay as well. Even traditional games teach kids basic everyday skills, according to lan Bogost, associate professor at the Georgia Institute of Technology and founder of software maker Persuasive Games. "Look at *World of Warcraft*: You've got 11-year-olds who are learning to delegate responsibility, promote teamwork and steer groups of people toward a common goal."

Games that are designed to help teach are having an impact on college-age pupils as well. Following a recent 3D virtual simulation of a US/Canadian border crossing, wherein students assumed the role of guards, Loyalist College in Ontario reported that the number of successful test scores increased from 56% to 95%.



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BETTER INFORMATION PROCESSING AND DECISION MAKING ABILITIES

Surprise: Adults can learn something and benefit from video games, too.

Research underway by the Office of Naval Research (ONR) indicates that video games can help adults process information much faster and improve their fundamental abilities to reason and solve problems in novel contexts. In fact, results from the ONR study show that video game players perform 10% to 20% higher in terms of perceptual and cognitive ability than non-game players.

As Dr. Ezriel Kornel explains on WebMD.com, playing certain video games (e.g. *Brain Age* or *Guitar Hero*) can also improve hand-eye coordination, enhance split-second decision making and even, potentially, boost auditory perception. Just playing isn't enough, though, says Dr. Kornel. The key is that you have to be improving each time you play, because in order to improve you have to be learning.

"Anytime the brain is in learning mode," Kornel says, "there are new synapses forming between the neurons. So you're creating thousands of connections that can then be applied to other tasks as well."

Someday, a video game might even save your life, as games are already benefiting students and practitioners in the medical field too.

A study published in the February edition of *Archives of Surgery* says that surgeons who regularly play video games are generally more skilled at performing laparoscopic surgery.

In addition, according to Dr. Jeffrey Taekman, the director of Duke University's Human Simulation and Patient Safety Center, "serious games and virtual environments are the future of education."

Besides offering medical students the ability to practice on patients (which is much safer in the digital world), simulations offer health care providers several upsides. Chief among them, Taekman says, are the abilities to make choices, see results and apply information immediately.

Beyond allowing for greater scalability and group collaboration than traditional classrooms, every decision made in a virtual world, he continues, can be tracked and benchmarked against best practices, then standardized or archived for



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others' review. "The traditional textbook will soon become passé," he suggests. "Gaming platforms will offer an interactive way for students to learn and apply information in context."

HEIGHTENED ATTENTION AND MULTI-TASKING

Other carefully-designed studies have also shown that action video games can improve several aspects of brain activity, including the ability to simultaneously juggle multiple tasks. According to studies by Daphne Bavelier, a professor of brain and cognitive sciences at the University of Rochester, video gamers show real-world improvements on tests of attention, accuracy, vision and multitasking after playing certain titles.

"If you think about it, the attentional and working memory demands of video games can be much greater than other tasks," says Michael Stroud, a professor of psychology at Merrimack College. "Consider *Pac-Man* as an example. In *Pac-Man*, you must navigate your character through a spatial layout while monitoring the separate paths of four additional objects (the ghosts), while keeping the overall goal of clearing the small pellets in memory, as well as keeping track of the remaining large pellets."

"Think about how this may apply to skills such as driving," he continues. "When you drive your car, you are faced with a constantly changing environment in the road, not to mention several other distractions that compete for attention that reside in the car. At the same time, you are attempting to navigate through the environment to reach a goal."

GROWING SOCIAL INTERACTION AND COMMUNITY AWARENESS

Games with broad appeal that are easy to grasp can additionally help many families play together, and better bridge the gap between generations. Consider titles like hip-wiggling simulations *Dance Central 2* or *Just Dance 3*, which can have young kids shaking a leg alongside their grandparents.

There are also many games that have positive social messages that encourage families to be a force for good. In a series of experiments published in the *Journal of Personality and Social Psychology*, researchers found that participants who had just played a "pro-social" game in which characters must work together to help each other out as compared to those who had just played a "neutral" game (e.g. *Tetris*) were more likely to engage in helpful behaviors. Examples included assisting in a situation involving an abusive boyfriend, picking up a box of pencils or even volunteering to participate in more research.



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So-called "serious games," specifically designed to teach and inform, are also having an impact on the world. Titles like the United Nations' *Food Force* teach kids about real-life issues, humanitarianism and the practical challenges facing governments and private organizations today. In the game, children must complete six different missions that reflect the real-life obstacles faced by the World Food Programme in its emergency responses. Other games, like Nourish Interactive's online *Chef Solus and the Food Pyramid Adventure*, teach kids about the benefits of healthy eating habits, while still more highlight pressing geopolitical and social issues, e.g. the *Global Conflicts* series.

Upsides can even extend into the physical world. Consider Facebook game *Ecotopia*. In summer 2011, players of the popular social game met a challenge from its creators and planted 25,000 trees in the game world in 25 days, leading the game's developer to plant 25,000 trees in real life.

FURTHERING CAREER SKILLS AND PROFESSIONAL DEVELOPMENT

Future career choices for today's tots will no doubt be influenced by technology in a way that is difficult for many parents to imagine too. Skills learned and honed playing home console and video games, as well as mobile gaming apps for devices like the iPhone and iPad, will undoubtedly be very valuable to students in the workforce of 2025.

Note that the Federation of American Scientists (FAS) has proclaimed that kids need more, not less, video game play. They argue that video games hold the potential to help address one of America's most pressing problems – preparing students for an increasingly competitive global market.

"The success of complex video games demonstrates that games can teach higher-order thinking skills such as strategic thinking, interpretative analysis, problem solving, plan formulation and execution, and adaptation to rapid change," the Federation announced in a 2010 report. "These are the skills U.S. employers increasingly seek in workers and new workforce entrants."

Games are increasingly being used to educate and instruct workers around the globe by governments, trade bodies and the world's largest corporations as well. From Cisco Systems' *The Cisco Mind Share Game*, which facilitates network certification, to the US Department of Justice's *Incident Commander*, in which emergency responders practice coordinating disaster relief efforts, the number of practical examples continues to grow. In fact, a recent study by the Entertainment Software Association (ESA)found that 70% of major domestic employers have utilized interactive software and games for training purposes, and nearly eight in 10 plan on doing so by 2013.



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Going forward, in addition to polishing your resume and interview skills, who knows? You may even want to brush up on your button-mashing abilities.

PROMOTING COOPERATION AND TEAMWORK

Many games today also emphasize the cooperative aspects of gameplay, in which two or more players need to work together in order to reach a common goal. For instance, games like *Lego Star Wars* or *Kirby's Epic Yarn* are enhanced by having players cooperate to solve in-game puzzles.

Massively multiplayer games such as *Wizard 101* and *Lord of the Rings Online* further offer added depth, atmosphere and enjoyment by allowing players to band together and work as a team in order to complete certain quests or defeat especially tricky opponents. Industry analysts actually predict that video game revenue will reach nearly \$70 billion by 2015, thanks in large part to these online, cooperative, subscription-based games that can be played together. Small wonder top titles like *Star Wars: The Old Republic* and *Titan* (the next MMO, or virtual world, from Blizzard, the company that created *World of Warcraft*) continue to resonate so strongly with millions worldwide.

Even the way that games are made can encourage teamwork. At Washburn University in Kansas, students study the game development process as a way to build teamwork and collaborative skills.

"It taught me to work in a group," said Washburn student Adam Bideau of the program in a recent interview with the *Washburn Review.* "Video games are not created by just one person and they require you to work well with others. You have to pool everyone's talents together in order to produce the required product."

BUILDING CONFIDENCE AND SELF-ESTEEM

Researchers from McGill University's Department of Psychology have created and tested computer games that are specifically designed to help people enhance their self-acceptance. The researchers drew on their experience playing repetitive computer games and devised novel counterparts that would help people feel more positive about themselves.

Even games that aren't specifically designed to do so can still help kids feel a sense of achievement, based simply on the basic principles involved in what makes a successful game. Through puzzles, exploration and discovery, players learn



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to succeed in ways that some researchers say our brains actually prefer. Most games are designed to introduce a concept, such as jumping, and then provide players with an opportunity to master it. Players are then free to explore and utilize and achieve success with this new skill, growing in self-confidence all the while.

CHAMPIONING EXERCISE AND PHYSICAL FITNESS

All parents know that kids need a healthy combination of physical and mental exercise. Happily, today's motion-controlled games for Microsoft's Kinect on Xbox 360, Nintendo's Wii and Wii U, and Sony's PlayStation Move help kids get both kinds of workouts at the same time.

Better yet, people of all ages are finding them a more approachable way to stay physically fit. While many shy away from exercise because they see it as an activity that isn't enjoyable, organizations like the American Heart Association now cite and even recommend video games as a fun and entertaining way to enjoy physical activity.

Upsides of active play are considerable too. A study reported in the Archives of Pediatrics and Adolescent Medicine of 39 Boston middle-school children who played with six different interactive gaming systems found that the games "compared favorably with walking on a treadmill at three miles per hour, with four out of the six activities resulting in higher energy expenditure."

Organizations supporting individuals of all ages and interests are additionally using active games to help get people up and moving. Nursing homes, cruise ships and even after-school programs all now employ active video games in some form to help stimulate both the mind and body.

The good news: People seem to be enjoying active play more than ever. Healthy diversions such as Wii Fit and Zumba Fitness continue to be some of the most popular and best-selling games year in and out.

FACILITATING FAMILY BONDING AND RELATIONSHIPS

Video games can also have some very important effects on family relationships, and deserve to be thought of as something that can – and should – be played together.

It's always seemed obvious to families that activities like playing board games, make-believe, or even making music



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together could strengthen the family bond. But many parents view video games as a solitary, sedentary, time-wasting activity, when the truth is that video games have in fact emerged as a viable option for family game time that can potentially offer great benefits to households who are willing to enjoy them together. You won't be alone if you do decide to take the plunge either. According to the ESA, 45% of parents play computer and video games with their children at least weekly, an increase from 36% in 2007.

Families that embrace playing video games as part of their everyday life are likely to find themselves enjoying a greater sense of cohesion and communication than families who still view video games as an idle, meaningless and solitary pursuit. As a result, it's small wonder that so many in this day and age are putting away the cards and dice and turning to high-tech alternatives for modern family game nights.

Moving, thinking, cooperating, helping, learning, empathizing, growing, seeing the world from other perspectives... video games can help kids and families do all these things and more. Rather than simply discount them, why not try a different approach? Talk to your friends, do the research and seek out games that your family likes to play and that you as parents are comfortable with, then consider making play a part of your regular routine. Chances are, you won't just have a great time – you'll also make lasting memories and connections with your kids while doing so.





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