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Video gaming

Chasing the dream

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As video gaming spreads, the debate about its social impact is intensifying

IS IT a new medium on a par with film and music, a valuable educational tool, a form of harmless fun or a digital menace that turns children into violent zombies? Video gaming is all these things, depending on whom you ask.

Gaming has gone from a minority activity a few years ago to mass entertainment. Video games increasingly resemble films, with photorealistic images, complex plotlines and even famous actors. The next generation of games consoles—which will be launched over the next few months by Microsoft, Sony and Nintendo—will intensify the debate over gaming and its impact on society, as the industry tries to reach out to new customers and its opponents become ever more vocal. Games consoles are the most powerful mass-produced computers in the world and the new machines will offer unprecedented levels of performance. This will, for example, make possible characters with convincing facial expressions, opening the way to games with the emotional charge of films, which could have broader appeal and convince sceptics that gaming has finally come of age as a mainstream form of entertainment. But it will also make depictions of violence even more lifelike, to the dismay of critics.

This summer there has been a huge fuss about the inclusion of hidden sex scenes in "Grand Theft Auto: San Andreas", a highly popular, but controversial, game in which the player assumes the role of a street gangster. The sex scenes are not a normal part of the game (see above for a typical image). But the offending scenes can be activated using a patch downloaded from the internet. Senator Hillary Clinton and a chorus of other

American politicians have called for federal prosecutors to investigate the game and examine whether the industry's system of self-regulation, which applies age ratings to games, is working properly. Mrs Clinton accused video games of "stealing the innocence of our children" and "making the difficult job of being a parent even harder".

As a result of the furore, "Grand Theft Auto" had its rating in America changed—from "M" for mature (over-17s only) to "AO" for adults only (over-18s)—by the industry's rating board. But since most big retailers refuse to stock "AO" titles, of which very few exist, Rockstar Games, the maker of "Grand Theft Auto", is producing a new "M"-rated version without the hidden sexual material. This is merely the latest round in a long-running fight. Before the current fuss over "Grand Theft Auto", politicians and lobby groups were getting worked up over "Narc", a game that depicts drug-taking, and "25 to Life", another urban cops-and-robbers game.

Ironically, the "Grand Theft Auto" episode has re-ignited the debate over the impact of video games, just as the industry is preparing to launch its biggest-ever marketing blitz to accompany the introduction of its new consoles. Amid all the arguments about the minutiae of rating systems, the unlocking of hidden content, and the stealing of children's innocence, however, three important factors are generally overlooked: that attitudes to gaming are marked by a generational divide; that there is no convincing evidence that games make people violent; and that games have great potential in education.

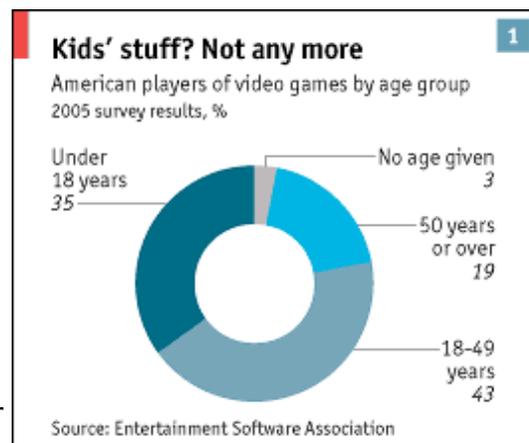
Start with the demographics. Attitudes towards gaming depend to a great extent on age. In America, for example, half of the population plays computer or video games. However most players are under 40—according to Nielsen, a market-research firm, 76% of them—while most critics of gaming are over 40. An entire generation that began gaming as children has kept playing. The average age of American gamers is 30. Most are "digital natives" who grew up surrounded by technology, argues Marc Prensky of games2train, a firm that promotes the educational use of games. He describes older people as "digital immigrants" who, like newcomers anywhere, have had to adapt in various ways to their new digital surroundings.

Just getting by in a foreign land without some grasp of the local language is difficult, says Mr Prensky. Digital immigrants have had to learn to use technologies such as the internet and mobile phones. But relatively few of them have embraced video games. The word "game" itself also confuses matters, since it evokes childish playthings. "What they don't understand, because they've never played them, is that these are complex games, which take 30, 40 or 100 hours to complete," says Mr Prensky. Games are, in fact, played mainly by young adults. Only a third of gamers are under 18.

"It's just a generational divide," says Gerhard Florin, the European boss of Electronic Arts, the world's biggest games publisher. "It's people not knowing what they are talking about, because they have never played a game, accusing millions of gamers of being zombies or violent." Digital natives who have played video games since childhood already regard them as a form of entertainment on a par with films and music. Older digital natives now have children of their own and enjoy playing video games with them.

The gaming industry is trying to address the generational divide. It is producing games designed to appeal to non-gamers and encouraging casual gamers (who may occasionally play simple web-based games, or games on mobile phones) to play more. This has led to the development of games with a wider appeal. Some of them replace the usual control pad with novel input devices: microphones for singing games, cameras for dancing and action games, and even drums. In addition, the industry has started to cater more to women, who seem to prefer social simulation games such as "The Sims", and to older people, who (if they play games at all) often prefer computerised versions of card games and board games. Other promising avenues include portable gaming, mobile gaming and online downloads of simple games. Many people enjoy gaming, but do not necessarily want to commit themselves to an epic quest that will take dozens of hours to complete.

The industry, in short, is doing its best to broaden gaming's appeal, which is of course in its own best interests. For the time being, however, the demographic divide persists, and it does much to explain the polarisation of opinion over gaming and, in particular, worries about violence. It also provides the answer to a question that is often asked about gaming: when will it become a truly mainstream form of entertainment? It already is among the under-40s, but will probably never achieve mainstream status among older people.



But aren't critics right to worry that gaming might make people violent? Hardly a week goes by in which a game is not blamed for inspiring someone to commit a violent crime. After all, say critics, acting out violent behaviour in a game is very different from passively watching it in a film. Yet surveys of studies into games and violence have produced inconclusive results, notes Dmitri Williams, who specialises in studying the social impact of media at the University of Illinois. And, in a paper on the subject published in June in *Communication Monographs*, he notes that such research typically has serious shortcomings.

For example, studies have examined only the short-term effects of gaming. There have been no studies that track the long-term effects on the players themselves. Another problem, says Mr Williams, is that it is meaningless to generalise about "game play" when there are thousands of games in dozens of genres. It is, he notes, equivalent to suggesting that all television programmes, radio shows and movies are the same. Better-designed studies that measure the long-term effects of specific types of games are needed.

They're beginning to happen. In his paper, Mr Williams describes the first such study, which he carried out with Marko Skoric of the University of Michigan. The study concentrated on a "massively multiplayer online role-playing game" (MMORPG) called "Asheron's Call 2". This type of game requires the player to roam around a fantasy world and kill monsters to build up attribute points. It is "substantially more violent than the average video game and should have more effect, given the highly repetitive nature of the violence", the researchers noted.

Two groups of subjects were recruited, none of whom had played MMORPGs before and many of whom had never played video games at all. One group then played the game for a month, for an average of nearly two hours per day. The other group acted as a control. All participants were asked questions about the frequency of aggressive social interactions (such as arguments with their spouses) during the course of the month to test the idea that gaming makes people more aggressive.

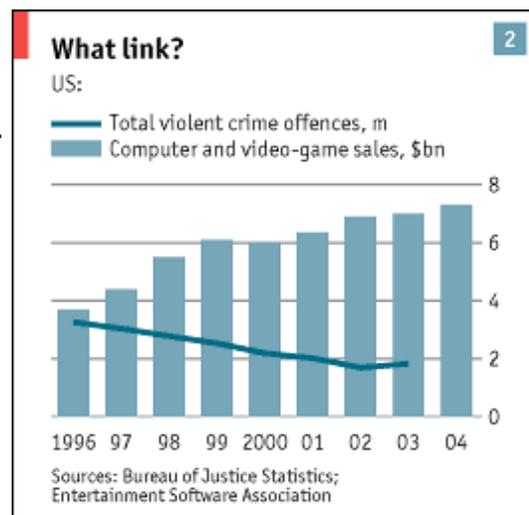
Moral choices

Game players, it turned out, were no more aggressive than the control group. Whether the participants had played games before, the number of hours spent gaming, and whether they liked violent movies or not, made no difference. The researchers noted, however, that more research is still needed to assess the impact of other genres, such as shoot-'em-ups or the urban violence of "Grand Theft Auto". All games are different, and only when more detailed studies have been carried out will it be possible to generalise about the impact of gaming.

But as Steven Johnson, a cultural critic, points out in a recent book, "Everything Bad Is Good for You", gaming is now so widespread that if it did make people more violent, it ought to be obvious. Instead, he notes, in America violent crime actually fell sharply in the 1990s, just as the use of video and computer games was taking off (see chart 2). Of course, it's possible that crime would have fallen by even more over the period had America not taken up video games; still, video gaming has clearly not turned America into a more violent place than it was.

What's more, plenty of games, far from encouraging degeneracy, are morally complex, subtle and, very possibly, improving. Many now explicitly require players to choose whether to be good or evil, and their choices determine how the game they are playing develops.

In "Black & White", for example, the player must groom a creature whose behaviour and form reflects his moral choices (get it wrong and the results can be ugly—see the illustration). Several games based on the "Star Wars" movies require players to choose between the light and dark sides of the Force, equivalent to good and evil. Perhaps most striking is the sequence in "Halo 2", a bestselling shoot-'em-up, in which the player must take the role of an alien. Having previously seen aliens as faceless enemies, notes Paul Jackson of Forrester, a consultancy, "suddenly you are asked to empathise with the enemy's position. It's very interesting. Games are much more complex than the critics realise."





The move away from linear narratives to more complex games that allow players to make moral choices, argues Mr Prensky, means that games provide an opportunity to discuss moral questions. "These are wonderful examples for us to be discussing with our kids," he says. Indeed, perhaps the best way to address concerns over the effects of video games is to emphasise their vast potential to educate.

Even games with no educational intent require players to learn a great deal. Games are complex, adaptive and force players to make a huge number of decisions. Gamers must construct hypotheses about the in-game world, learn its rules through trial and error, solve problems and puzzles, develop strategies and get help from other players via the internet when they get stuck. The problem-solving mechanic that underlies most games is like the 90% of an iceberg below the waterline—invisible to non-gamers. But look beneath the violent veneer of "Grand Theft Auto", and it is really no different from a swords-and-sorcery game. Instead of stealing a crystal and delivering it to a wizard so that he can cure the princess, say, you may have to intercept a consignment of drugs and deliver it to a gang boss so he can ransom a hostage. It is the pleasure of this problem-solving, not the superficial violence which sometimes accompanies it, that can make gaming such a satisfying experience.

Nobody is using "Grand Theft Auto" in schools, of course, since it is intended for adults. But other off-the-shelf games such as "Sim City" or "Rollercoaster Tycoon", which contain model economies, are used in education. By playing them it is possible to understand how such models work, and to deduce what their biases are. (In "Sim City", for example, in which the player assumes the role of a city mayor, no amount of spending on health care is ever enough to satisfy patients, and the fastest route to prosperity is to cut taxes.)

Games can be used in many other ways. Tim Rylands, a British teacher in a primary school near Bristol, recently won an award from Becta, a government education agency, for using computer games in the classroom. By projecting the fantasy world of "Myst", a role-playing game, on to a large screen and prompting his 11-year-old pupils to write descriptions and reactions as he navigates through it, he has achieved striking improvements in their English test scores.

Another area where games are becoming more popular is in corporate training. In "Got Game", a book published last year by Harvard Business School Press, John Beck and Mitchell Wade, two management consultants, argue that gaming provides excellent training for a career in business. Gamers, they write, are skilled at multi-tasking, good at making decisions and evaluating risks, flexible in the face of change and inclined to treat setbacks as chances to try again. Firms that understand and exploit this, they argue, can gain a competitive advantage.

Pilots have been trained using flight simulators for years, and simulators are now used by soldiers and surgeons too. But gaming can be used to train desk workers as well. Mr Prensky's firm has provided simple

quiz games for such firms as IBM and Nokia, to test workers' knowledge of rules and regulations, for example. For Pfizer, a drug company, his firm built a simulation of its drug-development process that was then used to train new recruits. Other examples abound: PricewaterhouseCoopers built an elaborate simulation to teach novice auditors about financial derivatives. Some lawyers are using simulators to warm up for court appearances. Convincing older executives of the merits of using games in training can be tricky, Mr Prenskey admits. "But when they have a serious strategic training problem, and realise that their own people are 20-year-olds, more and more are willing to take the leap," he says.

So games are inherently good, not bad? Actually they are neither, like books, films, the internet, or any other medium. All can be used to depict sex and violence, or to educate and inform. Indeed, the inclusion of violent and sexual content in games is arguably a sign of the maturity of the medium, as games become more like films.

Movies provide one analogy for the future of gaming, which seems destined to become a mainstream medium. Games already come in a variety of genres, and are rated for different age groups, just like movies. But just how far gaming still has to go is illustrated by the persistence of the double standard that applies different rules to games and films. Critics of gaming object to violence in games, even though it is common in movies. They worry about the industry's rating model, even though it is borrowed from the movie industry. They call upon big retailers (such as Wal-Mart) not to sell AO-rated games, but seem not to mind that they sell unrated movies that include far more explicit content.

In June, Senator Charles Schumer held a press conference to draw attention to the M-rated game "25 to Life", in which players take the role of a policeman or a gangster. "Little Johnny should be learning how to read, not how to kill cops," he declared. True, but little Johnny should not be smoking, drinking alcohol or watching Quentin Tarantino movies either. Just as there are rules to try to keep these things out of little Johnny's hands, there are rules for video games too. Political opportunism is part of the explanation for this double standard: many of gaming's critics in America are Democrats playing to the centre.

Another analogy can be made between games and music—specifically, with the emergence of rock and roll in the 1950s. Like games today, it was a new art form that was condemned for encouraging bad behaviour among young people. Some records were banned from the radio, and others had their lyrics changed. Politicians called for laws banning the sending of offending records by post. But now the post-war generation has grown up, rock and roll is considered to be harmless. Rap music, or gaming, is under attack instead. "There's always this pattern," says Mr Williams of the University of Illinois. "Old stuff is respected, and new stuff is junk." Novels, he points out, were once considered too lowbrow to be studied at university. Eventually the professors who believed this retired. Novels are now regarded as literature. "Once a generation has its perception, it is pretty much set," says Mr Williams. "What happens is that they die."

Like rock and roll in the 1950s, games have been accepted by the young and largely rejected by the old. Once the young are old, and the old are dead, games will be regarded as just another medium and the debate will have moved on. Critics of gaming do not just have the facts against them; they have history against them, too. "Thirty years from now, we'll be arguing about holograms, or something," says Mr Williams.

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