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PETER LEWIS ON TECHNOLOGY

The Fortune Weblog

A look at gizmos, gadgets, and the issues that affect consumers in the age of digital technology.

Week of May 20, 2002

By Peter Lewis



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Big Game Revenues
Friday, May 24, 2002

LOS ANGELES--Someone told me there are Noise Police roaming the floor of the Electronic Entertainment Expo (E3) here at the Los Angeles Convention Center, charged with keeping each of the exhibitors from exceeding the 80-decibel limit. But it turned out to be merely hearsay. This is definitely the loudest trade convention this side of the Paris Air Show. Mobile phones are worthless because you can't hear them ringing, and putting them in vibrate mode doesn't help because the whole building is shaking with the sounds of computer games turned to 11 on the volume dial. Some exhibitors said (shouted, actually) that they aim their speakers at rival companies' booths, all in the spirit of fun.

And fun is the No. 2 objective at E3, a distant No. 2 to making money.

The computer and telecom industries may be in a funk, and the movie and music industries are desperately looking for ways to grow revenue. But here at E3, the annual gathering of the digital game industry, nearly everyone is anticipating a huge year.

A widely held belief is that the gaming industry runs on five-year cycles, loosely tied to the emergence of new generations of game consoles. Last year was by no means a bad year, considering the industry's double-digit percentage growth in revenue, to more than \$9 billion.

But it could have been better. The late introductions and limited availability of a new generation of game machines--the Microsoft Xbox, the Sony Playstation 2 and the Nintendo GameCube--kept holiday sales lower than they might have been, and game developers didn't have time to crank out as many titles for the new machines as they would have wished.

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This year will be a monster, according to several executives with whom I spoke yesterday. Here's their reasoning:

The consoles are not going to be in short supply this year.

A price war erupted last week that cut the Playstation 2 and Xbox to \$199, and the GameCube is \$149. On top of that, Sony cut the price of the original Playstation 1 to just \$49. Lower prices mean more sales.

To get the point across, the hardware and software makers are budgeting nearly \$1 billion for advertising and promotion going into the important holiday season. Marketing is becoming more skillful, with game releases frequently tied in to new movie releases (e.g., Activision has three games coming in November linked to Lord of the Rings, Harry Potter and James Bond flicks). So, they also get a halo effect from the movie studios' massive marketing campaigns.

Consumers are buying more games to go along with their new consoles. Consumers typically spend more money on games than they do on the consoles themselves.

The audience of game players is growing both in number and in demographic diversity. The median age for PC gamers today is 28, according to Intel executives; for console games, it's somewhere in the low 20s, according to software makers.

Because of world events and economic uncertainty, people are staying home more instead of going out, and they're looking for new forms of entertainment. Instead of huddling around the Monopoly board, they're popping in a video game.

Games are becoming more sophisticated, with stunning computer generated images that are almost movie-like in visual realism and with 5.1-channel surround sound. Many gamers attach their game consoles to home theater systems.

The list goes on. No wonder Microsoft spent well into the six figures to throw a party for game developers last night, wining and dining hundreds of people, and entertaining them with rock bands, snake charmers, acrobats, tango dancers, and other forms of exotic entertainment.

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Microsoft plans to spend \$2 billion over the next five years to develop Xbox Live, which adds online gaming and software delivery capabilities to the game console.

Online gaming is the next frontier for the industry, allowing players all over the world to compete in games over the Internet. No one doubts that online gaming will eventually expand the industry. But most gaming executives doubt that it will be a major factor any time soon.

Online games require a huge investment in infrastructure. Jay Allard, Microsoft's main X man, says the company has more people working on

infrastructure than it had working on the Xbox itself. The games are complex, especially the massive multiplayer games that will allow literally thousands of players to compete at the same time.

In a dogfight, for example, how can a guy with a dial-up modem and a slow PC compete against a player using a Pentium 4 and a broadband connection?

There's also the issue of latency; even a one second delay in executing commands over a network will degrade the enjoyment of the game. Some folks think online gaming won't take off until at least half the households have broadband connections, and we're nowhere close today.

Customer support is going to be costly. A single call for tech support will more than erase the revenue from the subscription fee.

And speaking of fees, how does one handle billing? People will buy and download the games and then pay monthly subscription fees to keep playing. That's new turf for the game companies, and it's a big challenge.

All those concerns, and more, make gaming execs skeptical that online gaming will be a mass-market success until, say, 2006. But we'll see the first forays into this area later this year.

Watch in November for "The Sims Online," from Electronic Arts. "The Sims" is the most successful video game ever, with nearly 17 million copies sold to date. (Here's an interesting demographic point: Half the players are female.) I saw demonstrations of "The Sims Online" yesterday, and the multiplayer aspects of the game add tremendously to its appeal. If the online version clicks, watch for rivals to accelerate their own online plans.

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What was the best new game at the show this year? There were many deserving candidates, and I'll list my picks next week. But special praise goes to two companies, on the basis of their demos.

Vivendi Universal Games built a grass-topped Hobbit hutch that enclosed a dazzling 360-degree, domed display system to show off its "Lord of the Rings: The Fellowship of the Rings" and Sierra Entertainment's "The Hobbit." The display system, developed by a San Francisco-based company called Obscura Digital, effectively allows the audience to step inside the video games. Coupled with Obscura's 3D surround sound, it was a thrilling experience.

In terms of graphics and sound, though, it was hard to top id software's demo of "Doom III," which won't be released until next year. John Carmack and his team of developers fundamentally changed the game industry several years ago with the first-person horror shooter concept in Castle Wolfenstein, and later "Doom" and "Quake." But with "Doom III," they've pushed computer-generated graphics to new levels of realism. I met yesterday with Carmack and Trent Reznor, of the band Nine Inch Nails, who is designing the game's sound and music effects. These guys are purists: Their only goal is to immerse the player in fear, dread and exquisitely intense anticipation, using all the visual and aural skills at their disposal.

It's been a great show; we'll post the final scores next week.

Email your comments to ontech@fortune.com

E3 Army Tactics

Thursday, May 23, 2002

LOS ANGELES--The armored personnel carriers and Army troops stationed outside the Los Angeles Convention Center yesterday were not part of an anti-terror security perimeter around the E3 Electronic Entertainment Expo, which opened Wednesday.

Instead, the Army was just another exhibitor at the show. The U.S. Army is preparing to release two sophisticated new video games it developed for widespread distribution later this summer, one a role-playing game called "Soldiers," the other an action-oriented shooter called "Operations."

The Army's presence here says a lot about the rising importance of video games in modern culture. On one level, it's a brilliant tactical move to reach an audience of 16- to 24-year-old Americans who might be persuaded, after playing the games, to consider a career in the Army. Instead of running 30-second commercials on TV and radio or placing a recruitment advertisement in a magazine, the Army can now command the rapt attention of young people for literally hundreds of hours by immersing them in the closest thing to real Army life this side of bootcamp.

Developed by the Modeling, Virtual Environments and Simulation Institute (MOVES) at the Naval Postgraduate School in Monterey, Calif., the two games are the first of what will eventually be a suite of many programs known collectively as "America's Army." (Yes, the Army called in support from the Navy, and the Navy won't let the Army forget it.) The games will be given away free in massive, carpet-bombing style, sort of like AOL does with its online service software.

These are very impressive games, the equal of any of the military-style shoot-em-ups on display everywhere in the convention center. The big difference is that every facet of the programs has been vetted by real Army troops for realism and accuracy.

In "Operations," the player can join a mission with the 10th Mountain Division against terrorist forces in a mountainous foreign country that is pointedly not called Afghanistan. Or, the player can train and fight along with the 75th Ranger Division, using the same weapons and tactics used by the real Rangers. Teams of players can play cooperatively over a network.

In "Soldiers," the role-playing game, the player becomes a recruit who learns both Army and life skills by going through simulated boot camp. Players learn about different career options offered in today's Army in a way that no recruiting brochure can match. The simulation is so real that drill sergeants scream in their faces, and soldiers who really mess up are sent to Leavenworth (accompanied by the sound of a blues harmonica). The realism extends to the personal life of the recruits. Players shop at the PX, learn to manage their personal finances, and even get married and divorced. It's that detailed.

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In a visit to AT&T Bell Labs years ago, researchers developing advanced combat aircraft simulations for the Air Force told me that video games contributed significantly to the success of the U.S. military in the Gulf War. A generation of pilots and tank gunners who grew up playing video games have the "twitch" skills that pay off in combat; the games have become so sophisticated that the skills necessary to play them translate remarkably well to modern computer-controlled weapons systems.

Modern battlefield terrains are mapped with 3D computer models so accurate that pilots and ground troops can practice their missions in advance. A similar level of detail is in evidence in the games.

In terms of dollars spent, young people buy video games at almost the same level as they buy music. It's a natural, then, that the Army has turned to video games to reach a new generation of potential recruits.

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Kenneth D. Cron, the savvy CEO of Vivendi Universal Publishing (the company that produces best-selling computer games like "Warcraft," "Crash Bandicoot," "Spyro the Dragon," and the forthcoming "The Lord of the Rings") told me today that computer games are the fastest-growing segment in the media business. Considering Vivendi's vast scope of media properties, ranging from music to movies to publishing, that's saying a lot.

Mr. Cron cited three factors fueling the growth of the games business. First, recent advances in computer chips and software have allowed developers to produce graphics that are nearly movie quality. Second, the Console Wars have driven down prices and put game machines into the hands of tens of millions of people worldwide, and for every console sold, customers buy three, four or five video games. And third, the relative maturity of the industry is paying dividends in terms of the demographics of the game-playing world. Yes, millions of young people are spending their disposable income on computer and console games, but they keep playing as they get older. Nearly half of the players today, he said, are over 35 years old.

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Vivendi, the world's third-largest media company, is a good example of the synergy that is possible when a media conglomerate gets its acts together. When Universal Studios (a unit of Vivendi) makes a popular movie, the video game is not far behind, and the soundtrack to the game probably draws from one of Vivendi's music artists.

Take the upcoming release of "Malice," an action-adventure game that Mr. Cron describes as "small girl, big hammer." The voice of Malice, the "tough and feisty teenage heroine" of the game, is provided by Gwen Stefani, the tough and feisty lead singer of the band No Doubt. No Doubt provides three songs on the game's soundtrack, adapted from the band's new CD "Rock Steady."

I expect we'll soon see companies vying to place their products in video games, the same way they do in films. Is that a Coke (tm) the character is

drinking? Is the hero packing a Smith & Wesson under that Hugo Boss jacket?

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LucasArts, the video game arm of director George Lucas's own personal media conglomerate, has its own synergy going. Today I saw an early version of "Star Wars: Bounty Hunter," due in Spring 2003, one of nearly two dozen Star Wars-based video games LucasArts has made or is making. The Playstation 2 and Nintendo GameCube graphics and sound are superb, perhaps because Lucas's Industrial Light and Magic chipped in on graphics, and LucasSound helped with the audio.

I also saw a preview of the first Indiana Jones game, "Indiana Jones and the Emperor's Tomb," which LucasArts is whipping into shape for a fall release.

There's also "Star Wars: The Clone Wars," a game that picks up where the currently running movie, "Star Wars, Episode II: The Attack of the Clones," leaves off. Put it this way: the acting in the game version is better than in the movie, which I saw last night.

But the whopper coming out is likely to be Sony Online Entertainment's "Star Wars Galaxies," a type of game known in the industry as a massive multiplayer online role-playing game. The game, scheduled to be released before the coming holiday season, will allow thousands of players--each of whom will buy the game and pay some kind of subscription fee, probably monthly--to create their own characters and inhabit a shared Star Wars universe.

Well, that's enough for today. More tomorrow.

Bigger Than Box Office

Wednesday, May 22, 2002

LOS ANGELES--Today is Day One for E3, the Electronic Entertainment Expo. This is believed to be the world's biggest gathering of people who create, sell and play games designed for personal computers, game consoles and, increasingly, the Internet and mobile data networks.

As noted in earlier reports, the digital gaming business had estimated revenues \$9.4 billion last year--more than all the money spent at the box office for Hollywood movies. If Internet-based gaming takes off in the coming year, as some people here think it will, games could even surpass the music business in terms of consumer spending.

Consider this: One game, "Gran Turismo," sold some 8 million copies last year at somewhere near \$50 a copy. According to my calculator, that's the kind of money that gets Hollywood moguls very interested. Also consider this: 8 million copies of the game's soundtrack wound up being heard by the prime demographic audience of 'tweens to thirty-somethings.

Sony rattled off a list of at least a dozen games that sold at least a million copies each last year.

No wonder there are so many Hollywood and music business executives snooping around here. No wonder Trent Reznor of Nine Inch Nails is hanging out at the id software meeting room.

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So far, the pre-show festivities have belonged to the hardware makers. Sony Computer Entertainment of America held an 8:00 am news conference, which I managed to attend despite being taken on a joyride through East Los Angeles by a confused taxi driver. (Hey, it's a more interesting story line than some of the video games I saw today...)

Kaz Hirai, SCEA's president and chief operating officer, opened the news conference by declaring, "The console wars are over." Sony is declaring victory, having sold more than 30 million Playstation 2 consoles, compared to no more than 4 million each for the Microsoft Xbox and the Nintendo GameCube.

Hirai-san also claimed that there are 250 game titles available for the Playstation 2, compared to 70 for the Xbox and 41 for the GameCube. By the end of this year, he said, there will be 400 PS2 titles available.

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A few hours later, Nintendo packed a local hotel for its own news conference. I found it oddly disconcerting that Nintendo executives made a point of talking about broadening its appeal to "mature" and "older demographic" gamers, (those who are in their 20s) because Nintendo's prime audience does not shave.

These news conferences are gaudy affairs, with deafening music and giant, flashy video screens all around. I figure I was the only one in the crowded auditorium old enough to know that the music rocking the room sounded just like the inside of a MRI chamber, only 100 dB louder. Whump, whump, whump, whump. I could feel my molecules realigning.

Nintendo's conference was disconcerting for other reasons, too. Like Sony, Nintendo spent a little too much time explaining why Microsoft and its Xbox were not serious threats. The net effect is that everyone in the audience now knows that Microsoft is a serious threat.

Unlike Sony and Microsoft, Nintendo basically admitted that it doesn't have a clue about online gaming. It spent a lot of time explaining that broadband penetration into homes is going much more slowly than expected, and that anyway, it's more fun to gather a buddy or two around a GameCube for a rollicking hour or two of "connected" fun.

Nintendo's Game Boy Advance is basically the only serious portable game device on the market, and as a result Nintendo has sold more than 6 million of them. But Nintendo's main concept yesterday was the ability for 12-year-olds to plug a Game Boy Advance into a GameCube to enable multiplayer gaming--in the same room.

"You can connect Game Boy Advance to the GameCube," the Nintendo bosses explained. "This is at the heart of what we call 'connectivity.'" They

elaborated: "Online gaming is in the reach of only a few gamers, but connectivity is available to anyone. That's the true magic of Nintendo connectivity."

Ouch. They don't appear to get it.

Compare that to Sony's live online demonstration of online gaming a few hours earlier. Sony brought the National Football League star Daunte Culpepper of the Minnesota Vikings into the auditorium to play a game of "Madden Football 2003 Online" over the Internet with another NFL star, Jevon Kearse of the Tennessee Titans, who was in Orlando, Florida. Live play-by-play commentary was provided by John Madden himself, via satellite. For another game, "SOCOM: U.S. Navy Seals," Sony showed 16 people in various cities fighting a gun battle online.

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Anyway, the show opens this morning. I'm on the prowl for cool new games. Stay tuned.

Got Game?

Tuesday, May 21, 2002

LOS ANGELES--I was wrong. The security guards at the airport didn't even blink when my bag full of electronica went through the scanner. Perhaps they were more interested in the men and women with orange hair, backpacks, electric guitars, Nine-Inch Nails t-shirts and heavy thumb calluses, all headed to Los Angeles for the annual E3 Electronic Entertainment Expo.

E3 is the big show for gamers. Computer games, console games, Internet games, mobile phone games--it doesn't matter as long as it's digital, it's loud, it's fast, and it's fun.

It's also extremely lucrative for the people who sell games. As we noted earlier, people spend more money on these digital games than they do at the box office for Hollywood movies. Billions of dollars are at stake. So, while the video headbangers were whanging away on their Game Boy Advances back in the coach section of the plane last night, the Suits up in First Class were pounding away on their ThinkPads, crafting PowerPoint presentations. (Memo to the guy in 4E: Thanks for sharing Motorola's confidential pricing strategy for mobile gaming services. You need one of 3M's privacy screen guards, which keeps people around you from seeing what's on your computer.)

According to show organizers, exhibit space is actually larger this year than last. In other words, the general economic malaise does not appear to have significantly affected either attendance or booth rentals.

The E3 show officially opens Wednesday, but the Big Three console companies--Sony, Nintendo and Microsoft--have already started partying. Microsoft kicked it off last night with an Xbox extravaganza downtown. Sony and Nintendo have back-to-back news conferences this morning.

After last week's wave of price-cutting, the console war battlefield is pretty much set. Nintendo is going after the younger crowd with its \$149 GameCube. Microsoft, having cut the price of the Xbox to \$199, is making a big play for market share and for the emerging online gaming market. Sony, whose \$199 Playstation 2 has an overwhelming market lead, sees the console as a hub for home entertainment that goes beyond gaming.

All three are going to devote the rest of the year to gaining market share, because they know that market share leads to more software sales, and software sales are more profitable than hardware sales.

That's good news for consumers.

At last year's show, hardware was the big news. All three of the major consoles had just been upgraded with better graphics engines capable of lightning-fast game play with remarkably good 3D art. There were cool new 3D graphics cards for PCs.

This year, it's going to be about games.

Will there be a breakthrough game this year, the one that will cause people to go out and buy (or switch to) a new console, or buy a new graphics card? With console prices so cheap, it's conceivable that hard-core gamers may want to own more than one box.

Will online gaming be as big as Microsoft thinks it will be? Microsoft is betting more than a Bill (a unit of Microsoft currency equal to a billion U.S. dollars) that it's the next wave in gaming.

Are people willing to pay to play games on their mobile phones? Companies from more than 70 countries are showing up here to find out. Personally, I don't see my phone as an entertainment device. But as color-screen phones take off later this year, who knows? Maybe a game of Solitaire in the doctor's office, or a mobile Trivia game, might become appealing as a way to pass the time.

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Stay tuned for my reports from the Sony and Nintendo news conferences. If there's time, I'll also explain why the Wilshire Grand hotel, which bills itself as a "paradise for business travelers," is actually more like hell. And I'm joining LucasArts tonight for a screening of Episode Two of the Star Wars saga, so I may have some comments on digital movie projection systems, the trend toward technical effects in moviemaking, and the loathsomeness of Jar Jar Binks.

Well, That Didn't Take Long...
Monday, May 20, 2002

Last week, right after both Microsoft and Sony cut the price of their respective Xbox and Playstation 2 game consoles to \$199--matching the price of Nintendo's [GameCube console](#)--I guessed that Nintendo would respond by cutting the price of the GameCube to \$149.

Nintendo obliged today by announcing a price cut to \$149, effective tomorrow.

So, the GameCube once again is the low-cost console, endearing it to a large segment of the adolescent marketplace for whom 50 bucks is a very big deal. Fifty clams can buy a new game, for example.

Nintendo has shipped some 4.5 million GameCubes to date, making it a distant but solid number two in the console derby behind Sony's Playstation 2. Sony says it has sold 30 million PS2s.

Sony's strategy is to keep Microsoft on the ropes and to not upscrew its own commanding lead in the console wars.

Microsoft, meanwhile, is betting big on Internet-based multiplayer gaming. Tonight, on the eve of the E3 Electronic Entertainment Expo in Los Angeles, Microsoft is expected to unveil its new Xbox Live service.

As John Markoff reports in [The New York Times](#) today, both Nintendo and Sony have plans for online gaming, too. But Microsoft has more money and technological firepower, and it thinks the Xbox can be the platform of choice for the next generation of console gamers. The big question is whether the gamers will be game.

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I'm about to get on a plane to Los Angeles. I expect to be eyeballed, ID'd, and probably wanded and frisked by the security guards. That's what happens when you travel with a big bag full of computers, exotic peripherals and [electronic toys](#).

Maybe I'll even be X-rayed by one of those new full-body scanners that can read the label on my [boxer shorts](#). Or, maybe the airport will use bioelectric facial recognition to match my mug against images stored in a database of known international thugs. So far, [facial-matching systems](#) at airports have been dismally ineffective.

Some people think fingerprint scanners are the answer. But now even fingerprints can be faked by a skilled hacker, according to this [report](#) from England.

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