1999

State of the Industry Report

idsa

INTERACTIVE
DIGITAL
SOFTWARE
ASSOCIATION

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A Letter from the President

Like a player preparing for the next level of an interactive game, the video and computer game industry is advancing to an exciting new phase of development and growth in the next century. A quick look at recent developments in our industry offers valuable insight as to what lies ahead in the burgeoning interactive entertainment business.

Since 1996, interactive game sales have grown 63 percent, not including the anticipated growth figures for 1999. And, while we do not expect to maintain double-digit expansion forever, the market continues to show signs of future growth. In a recent survey, frequent video and computer game players said they believe interactive entertainment will become the most popular form of entertainment, ranking just behind the Internet.

In addition to sales growth, the industry has been experiencing another major expansion trend. Unlike the adolescent male market that shaped the early years of interactive entertainment, the 1990s gave rise to a whole new audience of gamers — adults. Today, the majority of those who most frequently play video and computer games are 18 years old or older, and for good reason — they're fun. Americans now rank video and computer games as the most fun over every other form of home entertainment, including television. And that contributes to interactive games becoming the country's fastest growing form of entertainment this decade. By the end of 1999, total computer and video game sales will approach the total box office revenue generated by the motion picture industry.

Along with new markets come innovative new products. Reflecting the growing popularity among casual gamers, the breadth of the 1,900 titles unveiled at this year's Electronic Entertainment Expo contained a record number of children's, puzzle and family games. Moreover, 70 percent of the 5,800 games rated during the last five years have been rated acceptable for all audiences. Only 7 percent of interactive games have been labeled for mature audiences. According to the NPD Group, the top three game categories among adults and teens are strategy/role-playing, action and sports games.

Over the years, the video game industry has triggered major advances in computer technology that created ripple effects reaching far beyond games. For example, demands in the video game industry for advanced chip architecture for the new generation of hardware are a boom to the semiconductor sector, and are leading to new advances in semiconductor process technology.

Looking ahead, the next generation of video game consoles to be introduced later this year will be as powerful as low-end graphic workstations, and will offer real convergence at a mass market price. The machines will be able to play DVD games, DVD movies, CDs, connect to the Internet, manage e-mail (including video e-mail) and act as a cable TV set-top box. The industry which brought Pong to Americans 26 years ago is now on the leading edge for high-technology home computing and consumer electronics machines.

This State of the Industry Report shows just how far our industry has come in a relatively short period of time. As we enter the next century, new technology is certain to attract millions of game players of all ages around the world to the unique entertainment that only video and computer games can provide.

Sincerely,

Douglas Lowenstein
President, IDSA

MIT student creates Spacewar, the first interactive computer game on a mainframe computer — the unit took the entire floor space of a small house.

1961   1962   1963   1964   1965   1966   1967   1968

Sega Enterprises Ltd. releases electronic shooting gallery game, Periscope, the first arcade game.

Brief History

Computer and video games are big business. In the more than two decades since Pong first bounced onto the scene, the industry has undergone dramatic growth. Scores of software firms have gotten into the game and are expanding their operations across the globe.

The spark that led to the growth of the retail video game industry was an agreement in 1975 between Sears and Atari. Sears gained exclusive rights to sell Home Pong in its more than 900 outlets, and that year Atari's sales were close to $40 million. An industry was born.

The modern-day video game industry took shape in 1985 when Nintendo introduced the eight-bit Nintendo Entertainment System (NES). Soon thereafter, the 16-bit Sega Genesis was launched, followed by Super NES. In the early 1990s, the PC game business surged with the introduction of CD-ROMs, falling prices for multimedia PCs, and the introduction of high-level 3D-graphics cards. In 1995-1996, a new generation of video game consoles took root, led by Sony PlayStation and Nintendo 64.
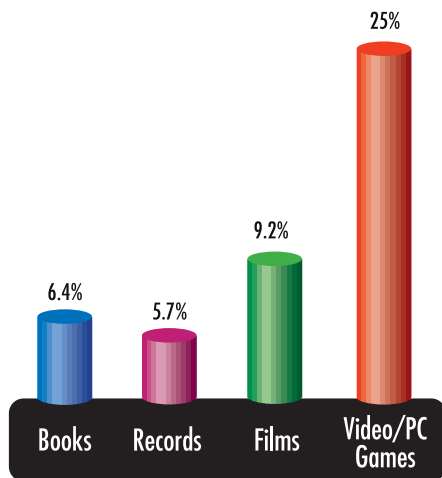
By 1998, the computer and video game industry grossed more than $5.5 billion in the U.S. alone, making it the fastest growing entertainment industry in the world.
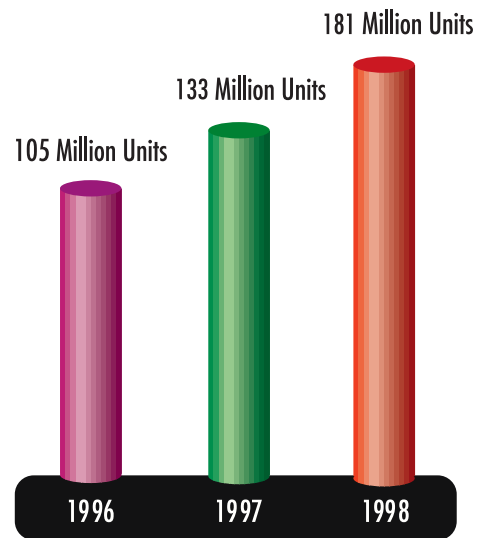
Growth of Interactive Entertainment

In 1998, software sales continued to skyrocket, increasing by 22 percent on a dollar basis, making it the third consecutive year the industry experienced double-digit growth. Video game sales racked up more than $3.7 billion, and computer game sales topped $1.8 billion. Retail sales remained strong throughout the year, with each month outperforming the same month a year ago. In addition, unit sales increased by 33 percent, selling 181 million units of PC and video games in the U.S. alone, or almost two per household.

Through the first three quarters of 1999, video game unit sales were up 31 percent, and dollar sales were up 21 percent, according to research from the NPD Group. Unit growth for computer games increased 22 percent and dollar sales increased almost 20 percent. Total sales reached $3.3 billion, a 19 percent increase compared to the same period last year.

1998 Entertainment Industry Growth

25%
9.2%
6.4%
5.7%

Books Records Films Video/PC Games

Computer and Video Game Unit Sales Growth

181 Million Units
133 Million Units
105 Million Units

1996 1997 1998

Magnavox begins developing the Odyssey, a TV plug-in device that plays the tennis game that becomes Pong.

1969   1970   1971   1972   1973   1974   1975

Atari creates Home Pong — home video game industry is launched.

Growth of Interactive Entertainment (Continued)

Computer and Video Game Sales Growth

$5.5 Billion

$4.4 Billion

$3.7 Billion

$3.2 Billion

| 1995 | 1996 | 1997 | 1998 |
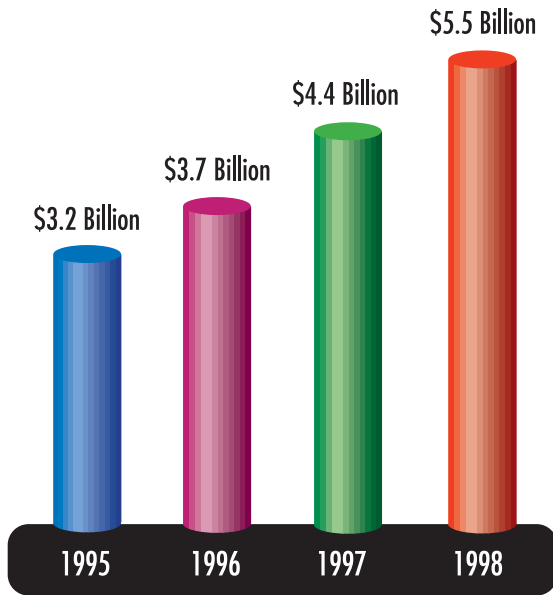
Broadening Player Demographics

The Players

One of the most persistent myths in the world of video and computer games is that kids are the dominant audience. In fact, surveys show that the market for interactive games is much broader. The IDSA's 1998 Interactive Entertainment Attitude and Usage study revealed that 69 percent of those most frequently playing computer games and more than half (54 percent) of those most frequently playing video games are 18 years old or older.

Male vs. Female

Although males make up the majority of video and computer game players, females are becoming a significant game-playing group. Last year, 31 percent of those most frequently playing video games were women. Among the most frequent computer game players, the number is even higher with 38 percent of women playing PC games.

Though female consumers may lag behind their male counterparts at playing interactive games, when it comes to purchasing them the scorecard is just about even. In 1998, 49 percent of those buying computer games were women, while 51 percent were men. As for video game purchases, women actually bought more console games than men (51 percent vs. 49 percent).

Computer and Video Game User Age Breakdown

69%

54%

46%

31%

| 18 and Under | 18 and Older |

● PC   ● Console
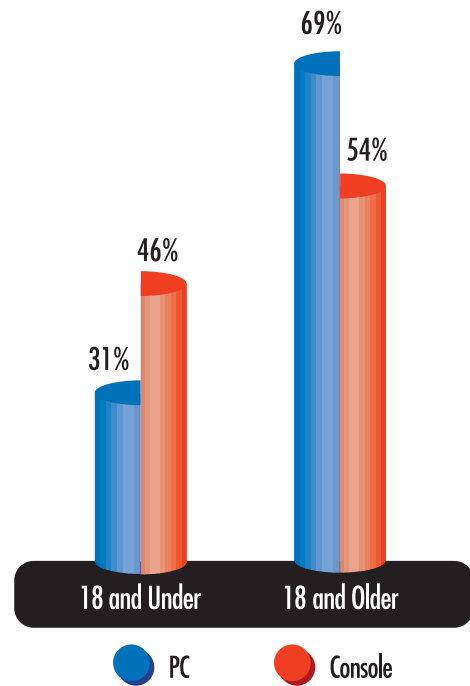
Apple Computers releases the Apple I computer: the first single-circuit board computer, with a video interface, 8K of RAM and a keyboard.
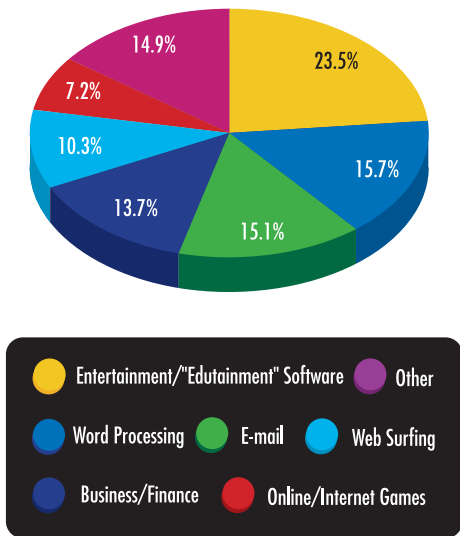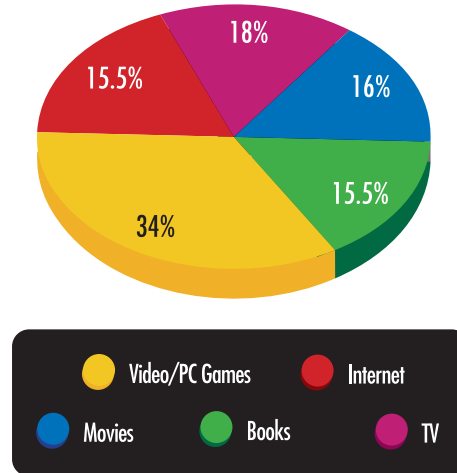
1976   1977   1978   1979   1980

5

Work vs. Play

Entertainment software continued as the most frequently used application on all computers. Word processing, e-mail, business/finance, Web surfing and online activities followed. In a reflection of the growth of the Internet games segment, of the households running entertainment software on a computer, 18.1 percent play games online, either through a network, online provider or cable service.

Most Frequent PC Applications

Legend:
- Entertainment/"Edutainment" Software
- Other
- Word Processing
- E-mail
- Web Surfing
- Business/Finance
- Online/Internet Games

Most Fun Home Entertainment

Based on a national survey of more than 1,600 households, consumers identified interactive games as being more fun than any other home entertainment activity, including watching television, going to the movies, surfing the Web and reading books. This is the second year in a row that video games were named as the most fun form of home entertainment.

Most Fun Home Entertainment Activity

Legend:
- Video/PC Games
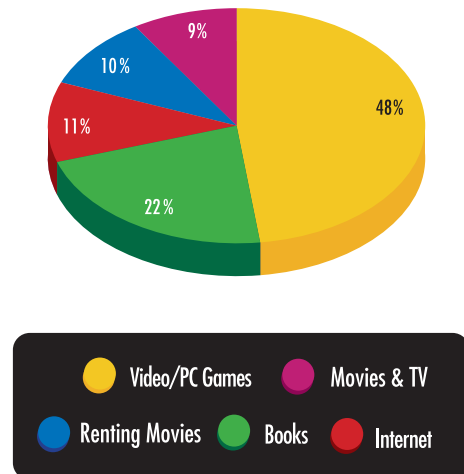- Internet
- Movies
- Books
- TV

When it comes to choosing which form of entertainment offers the best value, 48 percent of the most frequent game players said interactive entertainment is the best. Reading books placed second (22 percent). Surfing the Internet (11 percent) and renting movies (10 percent) followed as the best entertainment value.

Best Entertainment Value

Legend:
- Video/PC Games
- Movies & TV
- Renting Movies
- Books
- Internet

IBM introduces its personal computer, with Microsoft's 16-bit operating system, MS-DOS 1.0.

Apple releases the "Lisa," the first personal computer to use a Graphical User Interface.

1981   1982   1983   1984

Top-Selling Games

As the favorite entertainment activity, computer and video games serve up a wide variety of hot-selling genres and platforms. With another strong year of growth expected for interactive entertainment, the top-selling games leading the charge in 1999 include:

Top 20 Computer Games for 1999*

TITLE	PLATFORM	PUBLISHER/DEVELOPER	RATING
1. SimCity 3000	CD W95/W98	Maxis (Electronic Arts)	E
2. Cabela's Big Game Hunter 2	CD W95/W98	Headgames (Activision)	T
3. Baldur's Gate	CD W95/W98	Interplay	T
4. Half-Life	CD W95/WNT/W98	Sierra Online (Havas)	M
5. Starcraft Brood War	CD W95/WNT/W98	Blizzard (Havas)	T
6. Roller Coaster Tycoon	CD W95/W98	Hasbro Interactive	E
7. Deer Hunter 2	CD W95/98	WizardWorks (GT Interactive)	T
8. Command & Conquer: Tiberian Sun	CD W95/98	Westwood Studios	T
9. Frogger	CD W95	Hasbro Interactive	E
10. Myst	CD WIN	Broderbund (Mattel)	E
11. FlightSim 98/World of Flight	CD W95/W98	Microsoft	E
12. Star Wars: Episode 1: The Phantom Menace	CD W95/W98	Lucas Arts Entertainment	T
13. Alpha Centauri	CD W95/W98	Electronic Arts	E
14. Civilization: Call to Power	CD W95/W98	Activision	E
15. Everquest	CD W95	989 Studios (Sony)	T
16. Lego Island	CD W95/W98	Mindscape (Mattel)	E
17. Need For Speed 3	CD W95/W98	Electronic Arts	E
18. Tomb Raider	CD DOS/WIN	Eidos Interactive	T
19. Wheel of Fortune	CD W95/W98	Hasbro Interactive	E
20. Deer Avenger	CD W95/W98	Simon & Schuster	T

Top 20 Video Games for 1999*

TITLE	PLATFORM	PUBLISHER/DEVELOPER	RATING
1. Pokemon Blue	Game Boy	Nintendo of America	E
2. Pokemon Red	Game Boy	Nintendo of America	E
3. Super Smash Bros.	Nintendo 64	Nintendo of America	E
4. Mario Party	Nintendo 64	Nintendo of America	E
5. Syphon Filter	PlayStation	989 Studios	T
6. The Legend of Zelda: Ocarina of Time	Nintendo 64	Nintendo of America	E
7. Pokemon Pinball	Game Boy Color	Nintendo of America	E
8. Gran Turismo Racing	PlayStation	Sony Computer Entertainment	E
9. Frogger	PlayStation	Hasbro Interactive	E
10. Driver	PlayStation	GT Interactive	T
11. Pokemon Snap	Nintendo 64	Nintendo of America	E
12. GoldenEye 007	Nintendo 64	Nintendo of America	T
13. WCW/NWO Thunder	PlayStation	THQ	E
14. WWF Attitude	PlayStation	Acclaim Entertainment	T
15. Final Fantasy VIII	PlayStation	Square (Electronic Arts)	T
16. Spyro the Dragon	PlayStation	Sony Computer Entertainment	E
17. Star Wars Episode 1: Racer	Nintendo 64	Lucas Arts Entertainment	E
18. Crash Bandicoot Warp	PlayStation	Sony Computer Entertainment	E
19. Super Mario Bros. Deluxe	Game Boy Color	Nintendo of America	E
20. Crash Bandicoot 2	PlayStation	Sony Computer Entertainment	E

*Includes sales for Jan. – Sept. 1999, according to the NPD Group

Nintendo test markets the eight-bit Nintendo Entertainment System (NES) in New York.

1985   1986   1987   1988

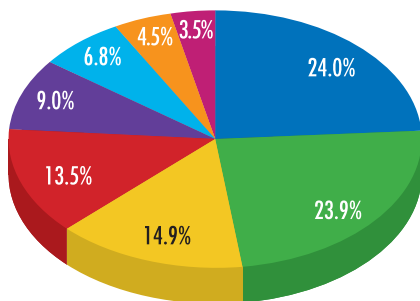**Commodore-Amiga 1000, the first home multimedia PC with 3D color, sound and games, is introduced.**

Top-selling Game Genres

According to research from the NPD Group for the first half of 1999, the strategy/role-playing* genre was the most popular based on unit sales (19.7 million units). Action games were the second favorite (17.1 million units). Sports and racing games placed third and fourth, with 8.9 million units and 7.8 million units respectively. Shooting (4.6 million units), fighting (4.2 million units) and simulation (3 million units) games followed. Sales of all other genre categories included 3.2 million units.

1999 Genre Breakdown by Sales
January-June 1999

Pie chart values: 24.0%, 23.9%, 14.9%, 13.5%, 9.0%, 6.8%, 4.5%, 3.5%

Legend:
- Strategy/RPG *
- Action
- Sports
- Racing
- Shooting
- Fighting
- Simulations
- All others

*The strategy/role-playing game genre includes titles such as Pokemon, The Legend of Zelda: Ocarina of Time, SimCity 3000 and Wheel of Fortune.

Computer and Video Game Ratings

In 1994, the IDSA created the Entertainment Software Ratings Board (ESRB), an independent advisory group to rate entertainment software. After extensive research and consultation with consumers, leading psychologists and child advocates, the ESRB developed a standardized system for rating computer and video games. During the past five years, the ESRB has become the nation's pre-eminent entertainment software rating system for all platforms.

The organization has received a great deal of praise from Congress. Senator Joseph Lieberman (D-CT) said, "The [ESRB] rating system is a model of industry responsibility and is by far the best around, better than the TV rating system, better than movies, and better than records; it's informative and easy to use and parents are using it to guide their purchases." (Source: ESRB Web site)

More than 300 of the industry's leading publishers and developers submit their titles to the ESRB to be rated. More than 5,800 titles have been rated to help consumers make informed purchasing decisions. In addition, all three video game console manufacturers have started including educational material about the ESRB ratings in every unit they ship in the United States.

The Ratings Process
Three independent, trained raters review each title's content and generate a consensus rating in two areas: age appropriateness and, if necessary, content. Among the key elements evaluated are: violence, sexual content, language, and early childhood development skills.

There are six rating categories:

Early Childhood
EC - ages 3+

Everyone
E - ages 6+

Teen
T - ages 13 +

Mature
M- ages 17 +

Adults Only
AO - 18 and older

Rating Pending
RP

1989

1990

Nintendo releases the Game Boy, the first portable, hand-held game system.

Microsoft introduces Windows 3.0 for the PC.

Computer and Video Game Ratings (Continued)

Content Descriptors

In addition to the rating categories, there are 20 content descriptors found on many games that provide information about what influenced the rating. These include phrases such as mild animated violence, realistic violence, animated blood and gore, strong language, informational and edutainment.
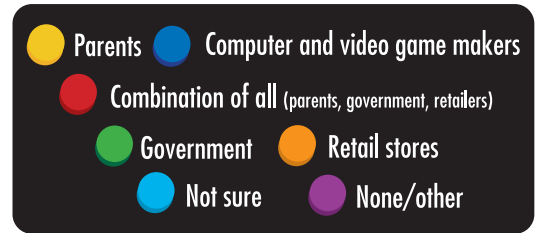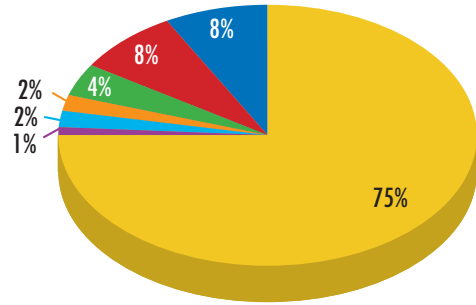
Proactive Steps by the ESRB

The ESRB, in cooperation with the IDSA, recently launched a major promotional campaign to educate parents about the ESRB. This promotional campaign includes: purchase of advertising in major national publications targeted at parents; placement of ESRB pull-out flyers in major parent-oriented publications, such as Child Magazine; production of a PSA featuring pro golfer, Tiger Woods, to be offered to networks and cable TV stations, promoting the use of the ESRB ratings; redesigned consumer brochures and the production of millions of copies for use by leading national retailers at the point of sale; and outreach to leading national grassroots organizations with ties to schools and parents – such as Mothers Against Violence in America, the PTA, the YMCA and the YWCA – to help get the word out to consumers, especially parents, about ESRB ratings and how to use them.

Consumer Attitudes about Ratings and Content

According to a 1999 ESRB consumer survey, parents are working to monitor the computer and video games their children play. Nearly three-fourths (73 percent) of parents who are familiar with the ESRB ratings find the system helpful when selecting a game for their children. Additionally, 89 percent say that an adult is present with their child when purchasing or renting a game. And, to help determine if a game is appropriate for their child, 83 percent of parents surveyed revealed that they try to watch every game their children play.

Responsibility for Controlling Game Content for Children

- 8%
- 8%
- 4%
- 2%
- 2%
- 1%
- 75%

Legend:
- Parents
- Computer and video game makers
- Combination of all (parents, government, retailers)
- Government
- Retail stores
- Not sure
- None/other

Jobs

The computer and video game industry job market is booming, directly employing at least 50,000 workers in the United States and another 17,000 more internationally. The impact of the industry's growth is reflected in the contribution of more that $16 billion to the US economy.

A report released by the IDSA, in conjunction with Coopers and Lybrand, showed that in 1997-1998, expansion in the industry's work force increased by 18 percent, compared to an average decline of 2.5 percent in the work force of Fortune 500 companies. During that same time period, the industry helped create 20,000 new jobs in a variety of other American businesses.

The 16-bit Super Nintendo Entertainment System (Super NES) is introduced. Super Mario Bros. 3, becomes the all-time best-selling video game cartridge for the Super NES.

Panasonic begins marketing 3DO hardware, which is offered as the first 32-bit video game device.

1991   **1992**   **1993**

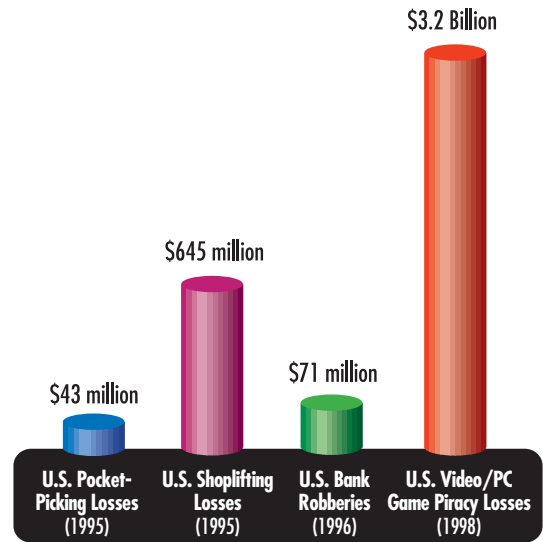S3 introduces the first single-chip graphics accelerator for the PC.

Piracy

The one major business negative challenging the computer and video game industry is piracy. The interactive entertainment industry lost more than $3.2 billion to pirates in 1998, not including the millions of dollars lost to Internet piracy.

The largest entertainment software losses are attributable to piracy in China where 95 percent of the game market is pirated product ($1.42 billion); Russian Federation where 97 percent of the market is pirated ($240 million); Mexico where the piracy level is 85 percent ($170 million); and Hong Kong where the piracy level is 72 percent ($112 million). Other markets contributing to serious entertainment software piracy are Thailand, Malaysia and Paraguay.

The IDSA's Anti-Piracy Program worked diligently throughout 1999 to combat entertainment software piracy. Its efforts included: direct investigation and enforcement actions around the world and on-line; working closely with government agencies such as the United States Trade Representative, the United States Customs Service, the Federal Bureau of Investigation (FBI) and foreign government officials; and training and educating customs agents and law enforcement officers in the United States and around the world.

Losses Due to Theft

$3.2 Billion

$645 million

$71 million

$43 million

| U.S. Pocket-Picking Losses (1995) | U.S. Shoplifting Losses (1995) | U.S. Bank Robberies (1996) | U.S. Video/PC Game Piracy Losses (1998) |

Russia

Hong Kong

China

Thailand

Malaysia

Mexico

Paraguay

Cyan releases "Myst," the biggest-selling computer game of all time.

Multimedia PC sales take off.

Entertainment software sales reach $3.2 billion.

1994

1995

Sega Saturn and Sony PlayStation are launched in Japan.

Sony releases PlayStation in the US.

Future > Trends > Challenges

CEO Survey Offers Clues to Future of Industry

Perhaps the best way to get a read about the future is to talk to those who help shape it. Earlier this year, the IDSA conducted a survey of the nation's leading entertainment software executives about the future of interactive entertainment. Below are some of the more revealing survey highlights:

Quality Focus

CEOs say "maintaining consistently high quality and innovative products" is the number one challenge facing the industry.

The Current Console Generation

Most CEOs agree that the peak installed base for the current generation of video game consoles is between 40 million to 45 million.

Market Expansion

The CEOs surveyed believe that the United Kingdom and Germany offer great potential for the future interactive game market, leading France, China, Japan and all of South East Asia. Russia is considered to have the least potential. By the year 2004, more than half of those CEOs surveyed predict China will be the market with the most potential for interactive entertainment.

About the IDSA

The IDSA is the U.S. association exclusively dedicated to serving the business and public affairs needs of companies that publish video and computer games for video game consoles, personal computers and the Internet. IDSA members collectively account for more than 90 percent of the $5.5 billion in entertainment software revenues generated in the United States in 1998, and billions more in export sales of American-made entertainment software. The IDSA offers services to entertainment software publishers including a global anti-piracy program, the Electronic Entertainment Expo trade show, business and consumer research, government relations and First Amendment and intellectual property protection efforts.

The IDSA is a leading source of consumer, economic and other industry data, as well as information on related market trends. Recent projects include the IDSA's annual consumer survey, an analysis of the electronic entertainment industry's impact on the U.S. economy and a survey of top computer and video game industry executives about industry trends.

Ongoing Initiatives

Government Policy Issues

The IDSA works with government at all levels to make the voice of its members heard on a wide range of crucial legislative and public policy issues ranging from copyright to First Amendment protection and Internet regulation. Following is some brief information on key issues:

- The IDSA supports adoption of sentencing guidelines that would ensure Internet software pirates face a credible threat of imprisonment for violation of the No Electronic Theft Act (NET Act).

- The IDSA backs legislation to deny special trade benefits, known as the General System of Preferences (GSP), to nations that fail to effectively enforce Intellectual Property Rights.

- The IDSA opposes expansion of the liability limitations to the Digital Millenium Copyright Act (DCMA). The Act contains very narrow limitations on liability for online service providers engaged in specific activities.

- The IDSA opposes efforts to regulate video game content and supports self-regulation as the best way to empower consumers to make informed choices without unconstitutional and unnecessary censorship.

Principles and Guidelines for Fair Information Practices

The IDSA issued principles and guidelines regarding the online protection of personal data for the guidance of IDSA member companies. These principles and guidelines serves as a basis upon which member companies can build their own data protection policies, and the IDSA actively encourages its members to do so.

The first Barbie game, "Barbie: Fashion Designer" is released on CD-ROM, a major step in the girls' game market.

Entertainment software sales top $4.4 billion.

1996

1997

The Nintendo 64 is released in the US.

Entertainment software sales total more than $3.7 billion.

3D graphic accelerators for PCs enter market in large volumes.

Advertising Review Council

The ESRB, in association with the interactive entertainment software industry, recently established a self-regulatory unit: the Advertising Review Council (ARC). ARC is responsible for the implementation, administration and enforcement of advertising principles and content guidelines for the interactive entertainment software industry. The objective is to assure responsible, appropriate, truthful, and accurate advertising with relation to interactive sofware products and services.

Available Surveys and Research

Available research and studies from the IDSA address a variety of business and marketing issues, as well as consumer attitudes and trends. Available information for members includes:

- 1999 Holiday Survey

- 1999 Entertainment Hardware and Software Attitude and Usage Study

- 1999 Interactive Entertainment CEO Survey

- Economic Impact of the Interactive Entertainment/Edutainment Software Industry 1997-1998

Electronic Entertainment Expo

Every year, the IDSA presents the highly acclaimed Electronic Entertainment Expo (E[3]), the world's most important show dedicated exclusively to the interactive entertainment industry. Wholly owned by the IDSA, E[3] attracts tens of thousands of industry professionals from around the world to see the latest in interactive entertainment software and related products, and to participate in three days of thought-provoking workshops and seminars. The sixth annual E[3] will be held at the Los Angeles Convention Center from May 11 to 13, 2000. For more information, visit: www.e3expo.com

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US computer and video game piracy losses total more than $3.2 billion.

Sega releases Dreamcast, the first 128-bit console.

Nintendo to release new console system, Dolphin.

1998   1999   2000

"The Legend of Zelda: Ocarina of Time" generates more retail revenues during the last six weeks of 1998 than any Hollywood feature film released during the same key holiday period.

Sony to release new console system, Playstation 2.

IDSA Members

Acclaim Entertainment

Activision, Inc.

Capcom

Disney Interactive

Eidos Interactive

Electronic Arts

Fox Interactive

Hasbro Interactive

Havas Interactive/Sierra On-Line, Inc.

Infogrames North America

Interplay Productions

Kesmai Corporation

Konami of America, Inc.

Lego Media International

LucasArts Entertainment

Mattel Media, Inc./Mindscape

MGM Interactive

Microsoft Corporation

Midway Home Entertainment, Inc.

Namco Hometek Inc.

Nintendo of America

NovaLogic Inc.

Psygnosis

Red Storm Entertainment

Ripcord Games

Sega of America Dreamcast, Inc.

Sony Computer Entertainment America

SouthPeak Interactive

Take 2 Interactive

The 3DO Company
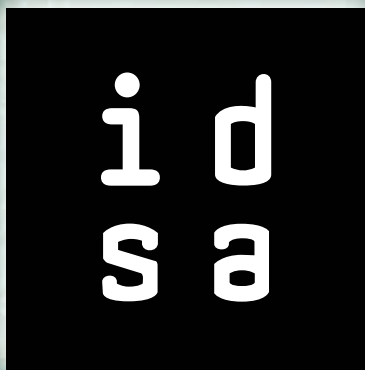
THQ, Inc.

Titus Software Corporation

Ubi Soft, Inc.

id s a

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