

Career opportunities are wide open in this booming multi-billion dollar industry

Most of us have been there ... staring into a dark screen, watching the seductive iridescent glow of the colorful graphics and pulsating psychedelic lights. Asteroids and ammunition explode when opposing forces meet to duel it out. Our hands grow moist as we clutch the controls ... waiting ... watching ... listening. For most videogame buffs the action is on the screen, but some enthusiasts have been quick to discover that the real excitement is behind the screens of Pac-Man, Space Invaders, and Donkey Kong.

The booming success of video areades and home videogames has set off another kind of explosion in the electronic toy and home computer industries—an explosion of success that has opened a gusher of career and business opportunities to everyone concerned. A wide-open race is on to grab a share of the megabuck future of this hyped-up six-year-old bonanza. The video-

By S. Lee Hilliard

game industry consists of four basic marketing components: video arcade consoles, home videogames, home computers, and videogame cartridges (software). The videogame people themselves estimate the entire industry as being in the 5 to 7 billion dollar range, making it larger than the 3 billion dollar movie business and the suffering 3.6 billion dollar record industry.

All over the country youthful videogame fanatics—including large numbers of blacks—are packing the arcades after school, while some older ones are even missing business lunches to play.

As an outgrowth of the widespread popularity of video arcades, the home videogame industry is rapidly expanding. In the home, they have taken attention—and dollars—away from TV and records to become today's hottest form of home entertainment. At least 14 million game consoles

Edward Smith proudly displays the MP 1000, a videogame he helped design in 1978



will be installed in American homes by this Christmas, according to industry estimates, up about 8 million from last year. Home game enthusiasts are expected to buy a whopping 50 to 70 million game cartridges by year's end. If these industry forecasts are correct, almost half of the homes with television sets will also have a videogame machine by 1985.

Middle-class black families have been quite willing to pay the price to keep up with the latest game technology, according to a 1981 BLACK ENTERPRISE survey. Slightly more than 26 percent of the respondents said they already had electronic toys at a time when the national percentage was less than 10 percent.

Among the handful of black professionals employed in the electronics toy manufacturing industry are some of the design and engineering pioneers responsible for today's videogame boom. Not only arcade owners but also black engineers, computer specialists and corporate managers are finding the computer games field to be a tough, challenging opportunity. And because of the phenomenal success of a Pac-Man or Space Invaders, some describe the machines as "rocketships to riches."

Jerry Lawson, a pioneer videogame designer who has been dubbed the "father of the videogame cartridge," is taking advantage of the skyrocketing craze. As president and founder of Santa Clara-based Video-Soft, a game design firm, he hopes to produce the next game that will capture the imagination of the home videogame enthusiasts. "People are always looking for exciting ways to be entertained," says the 42year-old computer veteran. "Now, with the high price of movies, for example, entertaining at home is very popular. Cable TV has set the pattern and the videogame will definitely enhance that trend."

"Videogame players will continue to buy the hottest of the latest games available," says Douglas Thomas, president of the Toy Manufacturers Association of America. "These games will probably comprise 20 percent of the toy sales this year; however, most of the game equipment will be sold in consumer electronic entertainment centers and not in toy stores." The videogame cartridges are being sold in record stores as well. In fact, Billboard magazine, a music business trade publication, has started listing the 15 top-selling videogames along with their record charts. In the next few years, Thomas predicts, videogames will be as adaptable as today's stereo records. "Right now the game machine brand you presently own dictates what games you can purchase. With the adapters that will hit the market soon, it won't matter what company you buy from."

Even though there always seems to be room to put up another video arcade, according to Lawson the home videogame field is already crowded and may soon be saturated. Greg Pratt, the 33-year-old vicepresident of operations at Commodore Business Machines in Valley Forge, Pa., sees a shakedown in the industry late this year because of the fierce competition.

The Videogame Market

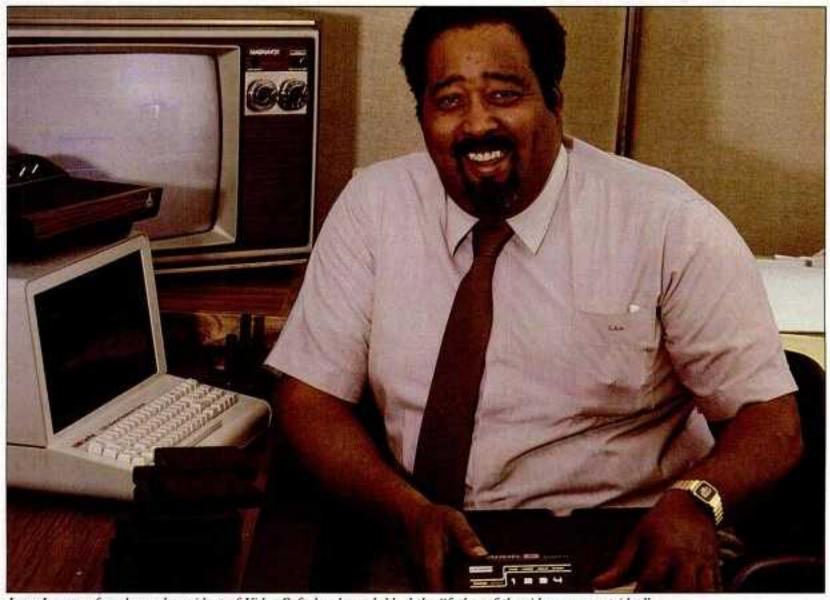
The most lucrative segment of the videogame industry, offering the quickest return on the dollar for the entrepreneur, is the coin-operated consoles for arcades. The current rush to put these moneymaking machines in every fast-food restaurant, bowling alley, train station and corner candy store continues. The special effects of Space Invaders, Space Aliens, and even Communist Mutants from Space emitted from the 19-inch screens are dazzling. To the serious videonaut, the arcades are the true Cadillacs of the videogames.

Capitalizing on their popularity, the most popular arcade games have been reproduced through licensing agreements with their manufacturers (such as Bally Midway and Atari) for home games.

Home video buffs have a choice of purchasing a game machine or a home (microprocessor) computer. The most popular game machine manufacturers are Atari, Mattel, Coleco, and North American Phillips (Magnavox). The leading home computer companies offering extensive game libraries are Commodore, Atari, Texas Instruments, and Apple. Of these, only Commodore has heavily advertised its gameplaying capabilities. Edward Smith, 27, a former game designer who now works as a sales representative at Castle Computers in Latham, N.Y., feels that as home computers come down in price, the simple game machine may soon become obsolete. The leading game manufacturers are already planning to offer hardware next year to

VIDEOGAMES & COMPUTERS FOR YOUR HOME

RETAIL PRICE	GRAPHIC QUALITY	TOP-SELLING GAMES	SIZE OF GAME LIBRARY
\$129-\$149	GOOD	PAC-MAN, SPACE INVADERS	60
\$150	VERY GOOD	GALAXIAN, STAR RAIDERS	10
\$229-\$250	SUPERIOR	NFL FOOTBALL, TRON	30
UNDER \$250	SUPERIOR	DONKEY KONG, COSMIC AVENGERS	24
\$139-\$150	EXCELLENT	PICK AXE PETE, K.C.'S CRAZY CHASE	48
UNDER \$200	EXCELLENT	GORF, OMEGA RACE	19
\$339-\$349	SUPERIOR	CENTIPEDE, FROGGER	50
\$299	GOOD	TI INVADERS, HUNT THE WUMPUS	79
\$1,530	EXCELLENT	CHOPLIFTER, SWASHBUCKLER	50
	\$129-\$149 \$150 \$229-\$250 UNDER \$250 \$139-\$150 UNDER \$200 \$339-\$349 \$299	\$150 VERY GOOD \$229-\$250 SUPERIOR UNDER \$250 SUPERIOR \$139-\$150 EXCELLENT UNDER \$200 EXCELLENT \$339-\$349 SUPERIOR \$299 GOOD	\$129-\$149 GOOD PAC-MAN, \$PACE INVADERS GALAXIAN, \$TAR RAIDERS NFL FOOTBALL, TRON UNDER \$250 SUPERIOR DONKEY KONG, COSMIC AVENGERS \$139-\$150 EXCELLENT FICK AXE PETE, K.C.'S CRAZY CHASE UNDER \$200 EXCELLENT GORF, OMEGA RACE \$339-\$349 SUPERIOR CENTIPEDE, FROGGER TI INVADERS, HUNT THE WUMPUS CHOPLIFTER,



Jerry Lawson, founder and president of Video-Soft, has been dubbed the "father of the videogame cartridge"

transform the consoles into computers. (See listing of the game machines and computers on page 42.)

The Electronic Bandits

Up to this year, the real hot spot in the videogames arena was the arcade. In some arcades it's hard to tell who is more excited-the players or the owners. Delores Williams, a former business development consultant, who opened her Space II Arcade in the light commercial district of northeast Washington, is sure she made a wise decision. "The arcade is the easiest business to run that I've ever been involved in," she says, "It requires a minimum of management skills, there is very little overhead, and it brings in a good return on each dollar invested. And furthermore, despite what many experts have predicted, people don't get tired of the games." (See "How To Set Up An Arcade" on page 44.)

After being forced to close her threeyear-old computer training school when CETA withdrew its support, this 47-yearold entrepreneur was determined not to go under. First, she decided to rent out her parking lot, which brought in \$2,000 per month. Prompted by a newspaper article about the money to be made in video arcades, Williams then decided to go into the game business with her two sons, Jimmy, 28, and Andre, 21.

"I didn't have the money to buy the machines with cash," Williams explains, "So I decided to find people who wanted to place their machines in the building that housed my school." She soon found six arcade machine owners who liked the location and put in a total of 30 machines; she is still getting requests to put in machines. Each owner splits the gross of his machines 50-50 with Williams. Incidentally, all but one of the owners take full responsibilities for repairs. Her best games-Ms. Pac-Man, Pac-Man, Galaga, and Star Wars-gobble up enough quarters to bring in \$250 to \$300 a week each. The rest, including oldfashioned pinball machines, average about \$150. The machines more than pay the rent of the building. Williams has opened a kosher deli and sandwich shop and features reggae bands and dances on weekends at the arcade.

Delores Barrows, owner of TREATS,

also in Washington, is not so enthusiastic about her three arcades. She claims her weekly take per machine averages only about \$125. Since she owns most of her equipment, she is heavily burdened with repair expenses. However, the 40-year-old attorney, whose main interest before the game arcades was in real estate, seems to enjoy the idea of providing entertainment for the community. TREATS manager, Robert Marshall, 19, coordinates fund-raising activities at the arcades with proceeds going to local boys' clubs and to buy sports equipment for area school teams. "We also offer free games to kids who can prove perfect attendance at school each week or who receive an A on their report cards," says Barrows. Despite the difficulties, she seems determined to make her arcades successful. "Besides, where else can the kids go around here for good, clean fun?"

It's All In The Chip

The technology that ignited the videogame explosion started with the development of low-cost integrated circuits better known as "chips." The chips allowed graphic images to move on a television

ÇASH IN ON Videogame Craze

screen. In 1977, at the start of the craze, Jerry Lawson, while employed as chief engineer of the videogame division of Fairchild Cameras and Semiconductor in California, developed the product concept and business plan for the first home videogame with high-quality graphics. However, Fairchild's hesitation to properly market the game left the way open for Atari and other makers to take the lead.

While he was still at Fairchild, Lawson had started his own videogame company named Microcon, and was one of the first to use the chip in an arcade game. His first and only arcade console, Demolition Derby, featured the best of the state of the art at the time. However, the product never reached the commercial market. "I

couldn't get the extra funding to produce the game," the video buff engineer explains with a touch of frustration in his voice, "so I had to let it drop. And I've also been ripped off several times since."

Tired of coming up with creative ideas and having someone else reap the profits, Lawson started Video-Soft with four designers last March and enough private funding to see his first projects to completion. The company already has completed three games for larger software firms, but because of contract restrictions, he cannot divulge the names or any details about the games. For his work, Lawson will receive a set fee plus royalties after the game is released. The amount could be quite substantial for a top-selling game (250,000 units) averaging at least \$30 per cartridge.

By the end of 1983, Video-Soft will have its own distribution channels and will produce, manufacture and distribute its own games. Right now Lawson is finalizing his Smart Cart system which will enable videogame players at home to compete with each other using the telephone. Lawson also hopes to produce a cheaper cartridge to lower the retail cost of the games.

Edward Smith was an engineer with the New York-based APF Electronics team that produced the first videogame and computer unit in 1978. "We tried to market the MP 1000 as a small business computer that could play games, but the response was "Why should I buy a toy to do my finances?" " After 20,000 units were sold, APF went out of business.

When APF closed its doors, Ed Smith switched from engineering to sales for the money. "At APF," he explains, "I would have to go out with the sales people to help demonstrate the equipment. They'd get the commission, I'd get a pat on the back." Smith supplemented his undergraduate engineering degree with marketing courses at Pace University in New York. "When you're knowledgeable in computer sales, you can make a good reputation for yourself fast." The ambitious computer expert is looking to pull together \$100,000 to start his own computer store in the next few years. He is currently working on an adapter to enable Apple computer owners to play Atari games, and tinkering with a few pos-

HOW TO SET UP YOUR OWN VIDEO ARCADE

Setting up an arcade can be a relatively simple procedure as long as you do
your homework first. Talk over the
business prospects of an arcade with a
local videogame machine distributor
(see the Yellow Pages under "Amusement Machines"). Then, visit a few arcades in your area to check out the most
popular machines and who plays them.
RePlay (P. O. Box 2550, Woodland
Hills, CA 91365) is a good trade publication that can provide lots of solid
information, including a listing of the 15
most popular games.

A successful arcade business requires the combination of a good location and the most exciting machines for your prospective customers. Different games are popular in certain neighborhoods or cities and with black and white players. Delores Williams' Space II Arcade caters to working adult customers at lunchtime and teenagers after school. The musical entertainment she features in an adjoining room on weekends draws a mixed bag of young adults and teens to the arcade next door. Williams says her black customers prefer maze games like Lock-n-Chase (which appeals to less adventurous types), and

space epics such as Astroids (for technically-oriented players). While Tron, a difficult complicated game based on the Walt Disney movie, and Space Invaders, a noisy search and destroy adventure, are big hits around the country, her customers are not interested in either game. Her regulars keep her informed on new games.

In most areas, you will have a choice of buying the game consoles for \$500 (used) to \$3,000 (new) from a local distributor, or leasing from a vendor for a 50-50 split of the profits.

Distributors prefer cash purchases. However, if your credit history is good, financing through a bank or the Small Business Administration may be available. Request distributors to put in a machine on a trial basis for a week or so to see how your customers respond.

Check the machine's repair record before you make a final choice. RePlay Magazine and arcade owners are the best sources for information of this type. Look up a distributor who guarantees his machines for at least 30 days and offers prompt and thorough repair service. If you are working with private vendors or if you own your machines, retain a good repair technician with experience in electronics and with the proper equipment. This is crucial. Major breakdowns can be expensive to repair, in some cases running from \$600 to \$1,200 for replacement parts. If you own the machines, you are stuck with the repair bills. Those who lease sometimes split the costs with vendors.

The space you rent or buy should have a sound electrical system to prevent the frequent problems and breakdowns associated with faulty wiring. You may need to upgrade the voltage to handle the number of machines you plan to install. Also, make sure you have enough electrical outlets. Lighting in the room should be dim to facilitate playing on the brightly lit screen. Williams suggests carpeting the floors, and placing stools near the consoles, and installing vending machines or concession stands.

Besides basic business zoning regulations, many cities have adopted specific laws controlling the hours an arcade may be open and when children under 16 may be allowed to play. Williams advises contacting local school authorities to avoid any problems. sible game designs of his own.

Several game software firms are accepting game programs from independent designers. "If somebody develops a good game, nobody cares who wrote it," says Greg Pratt. The consensus among blacks in the game software field is that opportunities are wide open. "Everybody's looking for the next Ms. Pac-Man or Donkey Kong," And a black designer might come up with it.

The market for new videogame machine and home computer hardware is practically monopolized by large companies who have enough money to sink into their designs. However, business opportunities still remain for inventors to develop and upgrade videogame accessories.

Charles Dickson, vice president of Hurricane Labs in Santa Clara, Calif., one of the few black-owned computer hardware designers in the country, hopes his company will find a market to sell equipment to help engineers design games faster.

"Our equipment will help designers network or, in other words, share the same computer files simultaneously," explains Dickson. But as a veteran in computers, he's not sure a design innovation from a black company will be enthusiastically received. "With minority companies, two questions are always asked: 'Does the thing really work?' and 'Can you deliver the product on time?'"

This lack of confidence in minority hightech firms has prompted the US Commission on Civil Rights to hold hearings in San Jose, Calif. According to Barbara Brooks of the Commission, banks and venture capitalists are extremely reluctant to invest in black high-tech firms—a factor which might prove to be a problem for new black videogame entrepreneurs.

Even so, Dickson and most of the black professionals in the area believe there is a chance to make a name in this business. "It basically comes down to who you know and being as visible as possible," says Dickson. He suggests that blacks interested in the videogame market attend consumer electronic trade shows sponsored by the Electronics Industries Association. (For information, contact: Consumer Electronic Shows, 2 Illinois Center, 233 N. Michigan Ave., Suite 1607, Chicago, IL 60601, telephone (312) 861-1040.

Good pay and a fast-paced, exciting, youth-oriented environment should make the videogame industry particularly inviting to black professionals including computer software designers, engineers, and marketing and sales people, says Ken Cole-



Greg Pratt and his family all enjoy battling the aliens at home



Space II Arcade owner, Delores Williams, takes a video break

man, 39-year-old vice president of human resources at Activision, the largest game design firm in the business. "The business is growing so fast, companies don't have time to discriminate because they need the talent," explains Coleman.

Anticipating an overwhelming response to the Christmas advertising push, many of the established game and computer companies are staffing up. But very few black professionals have tried to gain entry into the field. Coleman says he is disappointed at the lack of response among blacks to his general recruitment efforts. "The videogame business is just gaining legitimacy," he says, "Most of the designers are in their middle to late twenties with only six to 12 months of game experience and only an undergraduate degree in engineering or computer science." A good design engineer

can earn \$45,000 and up, adds Lawson. "Most of my engineers had had no game background before I trained them."

Coleman is also looking for sales and marketing people with solid creative consumer products backgrounds. These positions tend to offer slightly higher salaries in the high-tech fields than in consumer products. He advises blacks interested in the game industry to aggressively pursue career prospects in all areas and not be intimidated by its high-tech nature or that there are few blacks in the videogame business.

"For the most part, blacks have tended to shy away from high-technology fields," says Ed Smith. "The computer field, which includes videogames, is the industry of the future. Those who stay out of it will be totally lost in the marketplace in years to come."