

BEYOND THE PLANET OF THE PAC-MAN

A computer expert's views on the coming of age of the video game market

By Umberto Tosi

A peek at what's coming in electronic games as we roll towards 1983 indicates that, much as their critics would like them to go away, they will keep pervading the country like a hot pink blob in a drive-in movie space screamer. Manufacturers in what has been a recession-resistant business look for their biggest gains in the home sector. In the process, the boundaries between electronic games and other forms of entertainment will continue to blur as game vendors expand their markets beyond hard-core arcade game addicts.

Competition-spurred efforts to provide better graphics meanwhile is resulting in more sophisticated systems becoming available at low cost, mass market prices. This, in turn, makes games the cutting edge of the electronics industry's ambition to put computers in every home, live TVs and toasters, and reap megabucks in the '80s that will dwarf even the phenomenal profits of the past decade.

Americans presently are spending \$9 billion a year on electronic games, roughly three times what Hollywood earns on films, more in fact, than what is spent on any other form of entertainment. Coin-op video games account for \$8 billion, but it is the home video games that are growing fastest, doubling in sales each year. Two years ago, 3.5 percent of American homes had video game units.

In 1981 the percentage climbed to eight and by the end of this year it is expected to surpass 16 percent.

This doesn't include the lesser, but similarly increasing number of home personal computers purchased for productivity uses — for example, bookkeeping and word processing — which also have game capabilities often superior to those of dedicated-use game consoles. Americans now own about a million of these, and the number, similarly, has been doubling annually, although, 80 percent of these desktop models are purchased for offices, rather than as home computers.

Atari and Mattel, the two top vendors in the home video game market, are relying on two popular films from which they've spun off entries they will be pushing hard in the home video game market. Atari will offer a game based on *E.T.*, in coin-op, home cartridge and home computer versions. Meanwhile, Mattel's Intellelevision has fielded two home games based on *Tron*, the Disney sci-fi flic that already has spun off a coin-op version — by Bally — which currently is a top arcade money-maker. Atari and Mattel say their new games, developed under licensing arrangements with Lucasfilm and Disney respectively, should hit the stores in time for Christmas and will be introduced along with other new game cartridges.

Atari hopes its *E.T.* game will be a successor to its current number-one game, the home version of Pac-Man, which sold a million cartridges in its first six months on the market this year, topping Atari's previous winner, *Space Invaders*, which sold a million in its first year. The new *E.T.* game will be of the same maze-chase variety as Pac-Man, with a little extra-terrestrial character being pursued by agent-blips.

Craig Kubey, a Davis attorney whose

Winners' Book of Video Games (New York, Warner Books, 1982), is the best of its genre, calls games like this "cutsy," along with Pac-Man, Centipede, and Donkey Kong. He and other arcade video virtuosos prefer the hit games like *Defenders*, *Space Invaders*, *Asteroids* and his current favorite, *Robotron*. Nevertheless, Kubey, who also wrote a top-notch strategy book on Pac-Man, acknowledges that the so-called "cutsy" games can be as demanding as the more aggressive space-war games and have greatly widened the popularity of electronic games in general, especially with women. *Replay* magazine in its October issue, for example, lists *Ms. Pac-Man* as the nation's top arcade money-maker in its survey of coin-op games, and *Play Meter*, the other arcade trade-bible, lists it as number three, after King Tut (a new game), and *Tron*, both by Midway's Bally. Games in the top three earn from \$200 to more than \$250 a week for operators.

A more significant push in the home video game market comes with Atari's introduction of a new, more powerful console, the 5200 "Supergame," which the company claims has better graphics, audio, and control response capabilities than earlier models. It retails for a manufacturer-suggested price of \$269.95, with strong promotional support. The 5200 represents stiffening competition with Intellevision, whose strong suit, especially with its sports simulation games, has been realistic animation graphics and sensitive controls. Mattel, meanwhile is pushing a new "Intellevoice," add-on voice synthesizer for its modules that talks to game players, making comments like "good shot," "You may regret this," and "I am in control."

Unlike Intellevision's offerings, however, the Atari 5200 has computing applications which can be expanded with the addition of a keyboard, software and other options. The gap between game consoles and working personal computers of the type sold by Apple, Tandy, IBM, and others, including Atari, thus continues to close. Internally, game consoles that sell for \$100 to \$300, a personal computer that sells for \$2,000 to \$5,000, a business, desktop computer system in the \$5,000 to \$10,000 range and even coin-op machines that cost \$10,000 have similar, and in many cases identical, eight or 16-bit microprocessors (That is, circuits integrated on silicon chips the size of a baby's fingernail) as their master components, i.e. central processing units. All three are by definition programmable computers. The differences lie mainly in their add-on circuit boards, programming, and peripherals — e.g. keyboard,

Note: Tome Defanti quoted on the second page.

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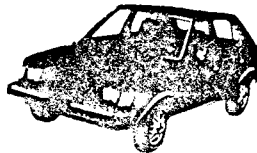
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paddle, or joystick controls, display screens, disk or tape drives for information storage. The quality of the graphics in a video game is determined by a combination of technical factors, the most important of which are the memory capacity of the computer, the skill with which it is programmed, and the type of picture tube or other display used. Home game consoles, for example, use a television set for display, while an arcade machine has a higher resolution picture tube that provides less flicker, better color, and greater detail. A good arcade unit is similar to a computer graphics system used in industrial applications. Taking advantage of that similarity, a Chicago-based company, Real-Time Design, this year began selling a graphic work-station for use in computer-aided-design that is nothing more than a modified arcade game machine made by Bally. Because the arcade components are mass-produced, Real Time Design is able to sell its product, under license from Bally, for \$11,000, about half the price of comparable graphics stations.

Tom Defanti, a University of Chicago computer science instructor and games expert who owns Real-Time Design says that game machines will spawn many more low-priced computer applications, both for home and office in the near future. He also predicts great improvements in animation for games, which increasingly will be done by artists rather than programmers, as game machines become more powerful. "We're going to get away from the shooting gallery monotony of the games now, with dots eating dots, and there'll be a lot more involvement by the players," he says.

Defanti sees the biggest breakthrough, however, as coming with the tie-in of games with cable television systems, a development that could start to appear for cable subscribers on a limited basis within a year, given an improvement in the economic climate that now is discouraging the capital investments that it would entail. Mattel, for example, already is in testing stages with a system called Play Cable. Games will be offered on a special game pay-channel, which can be used with a console attachment to the home television set. The power of the cable channel's large central computer could provide better graphics and other characteristics than is possible with the stand-alone consoles now on the market. A plentiful variety of games also could eventually become available — story, strategy, sports simulation and so forth. Cable players also could compete with each other. This in turn makes the cable subscriber part of a computer tele-network which eventually will be put to other uses, like electronic mail and education. □

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