



## CATALYST TECHNOLOGIES

**NOLAN K. BUSHNELL**

**Official Biography**

In 1972 -- on an **initial** investment of a few hundred dollars — **Nolan K. Bushnell** officially launched the **electronic games revolution** with the invention of **Pong** and the formation of his own company, **Atari**.

How **Mr. Bushnell** parlayed his modest investment into the creation of a multi-billion dollar industry is a remarkable **personal success story**.

After graduation from the University of Utah with a Bachelor of Science degree in electrical engineering, he obtained his first professional employment as a research engineer at Ampex Corporation in Sunnyvale, California. In his spare time, he developed an innovative arcade game, **Computer Space** (licensed and manufactured by Nutting Associates of Mountain View, California). **Bushnell** left Ampex and joined Nutting as chief engineer.

During **this time** he designed a special type of **circuitry** which would allow a viewer to interact with a **television set** and control the movement of objects on the screen. **This design was later patented** the **Bushnell Motion Circuit** by his newly formed video game company, **Atari**.

During his tenure as chairman, from 1972 through 1978, dozens of outstanding video games were developed and successfully marketed by **Atari**. The company became the industry leader and one of the fastest growing firms in history.

The growth of Atari was so rapid and so dramatic -- especially in the consumer products division -- that Mr. Bushnell was soon faced with a decision: how to raise the additional capital to support the development of the video computer system (VCS) for home distribution. He could take Atari public or sell it. Mr. Bushnell decided to put Atari up for sale. Warner Communications, the entertainment industry conglomerate, acquired Atari in October, 1976.

During this period, Mr. Bushnell was developing an idea he had conceived much earlier: restaurants that would provide an environment which combined fast food, electronic games, amusement facilities' and musical entertainment by computer-animated robot characters.

The first Chuck E. Cheese's Pizza Time Theatre with Mr. Bushnell as chairman of the board opened in 1977 in San Jose, California. Currently Pizza Time Theatre operates over ZOO stores in some 36 states and several foreign countries.

While he was directing the growth of Pizza Time Theatre' Mr. Bushnell was also cultivating the notion of establishing a Silicon Valley "dream factory" to support the research' development' and manufacture of high technology products .

In 1981, Mr. Bushnell founded Catalyst Technologies.

Catalyst has been variously described as "an incubator to mass produce small businesses;" "a supportive and creative environment;" and "a dream factory where technological fantasies are transformed into marketable realities.'

Nurturing fertile ideas by furnishing seed capital' developing business plans, and providing the kind of management expertise which can accelerate the development of young companies into mature organizations are primary functions of Catalyst Technologies.

Proprietor and chief executive officer of Catalyst Technologies, Mr. Bushnell also serves as chairman of the board for: Androbot Inc.; ByVideo Inc.; Camp TimberTech Inc.; Lion and Compass Restaurant, Inc.; Magnum Microwave Inc.; Pizza Time Theatre, Inc. and its subsidiary, Sente Technologies, Inc.; Vistar Productions, Inc. He is a partner in Cinemavision; Etak; Intercable: I'RO Impression; Teltech: and Gilbert Zapps.

Two of the Catalyst companies which have evolved to a level of maturity which enabled them to move into separate facilities independent of "parent" Catalyst) are Androbot and ByVideo.

**ByVideo, the first of the Catalyst companies to move into its own facilities, will revolutionize the field of retail selling. Microprocessor-controlled video display terminals will make available to the consumer a wide range of randomly accessible goods and services which can be purchased with the use of a credit card, similar to the kind of systems employed by automatic teller machines used in the banking industry.**

**Androbot left Catalyst headquarters and began operations on its own early in 1983. Four products have been developed by the Androbot R & D group: Topo, B.O.B. (Brains on Board), F.R.E.D. (Friendly Robotic Educational Device), and Androman, all of which were initially conceived by Bushnell. These robots combine ultrasonic and heat-sensitive infrared sensors with locomotion; they are being designed to function as the ultimate personal service machines.**

**In addition to a Bachelor of Science degree from University of Utah, Mr. Bushnell received a Distinguished Alumnus Award (1982). Babson College of Wellesley, Massachusetts honored Mr. Bushnell with membership in their prestigious Academy of Distinguished Entrepreneurs. Santa Clara County Business Magazine named him Business Leader of the Year (1980).**

**Nolan Bushnell resides south of San Francisco with his family. He and Mrs. Bushnell, the former Nancy Nino, are active supporters of the following organizations: The Medical Center of Leland Stanford Junior University, Planned Parenthood Association of San Mateo County, The Independent Aging Program of Santa Clara County, Amnesty International, Inc., The American Conservatory Theatre of San Francisco, and Friends of the San Francisco Ballet.**

**-##-**