The First Home Computer:
30 Years Later

Personal Recollections by Michael S. Tomczyk

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Presented in Rome Italy on 18 November 2012

Commodore in the 1970s

From Calculators to Computers…

Jack Tramiel was a Holocaust survivor who joined the U.S. Army, where he learned to repair typewriters. He founded Commodore in New York as an office equipment company.

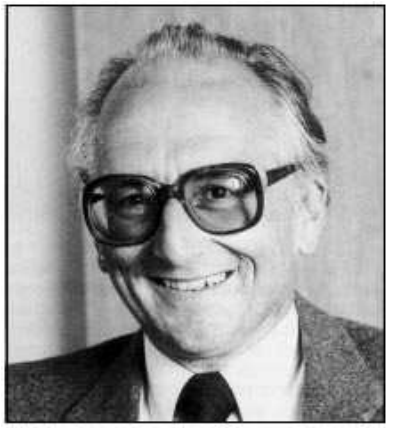
Early 1970s - Commodore was a pioneer in digital calculators – no. 1 in Europe.

Mid-1970s - Texas Instruments decided to make their own calculators, driving many firms out of business. Commodore lost $5 million on sales of $50 million.

1976 - Jack Tramiel asked financier Irving Gould for $3 million to buy MOS Technology, a semiconductor maker in Valley Forge, Pennsylvania. Jack retained 8% ownership.

MOS invented the 6502A microprocessor chip.

Commodore licensed a version of this to Apple *(through Synertek).*



Chuck Peddle, the Pet creator

Jack Tramiel, the founder of Commodore

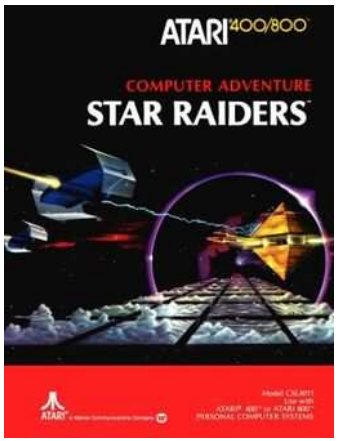
In 1976, engineer Chuck Peddle told Jack, "You didn't buy a semiconductor company – you bought a personal computer company.

He showed Jack a prototype and they decided to call it the Commodore PET because the Pet Rock was very popular at the time – but the Pet Rock lawyers threatened to sue them so Chuck had to justify the name.

He studied the dictionary overnight and named it the Personal Electronic Transactor (P.E.T.).

The Roots of Home Computing…

The Atari 600 was based on the Atari 400 – it had plug-in game cartridges (good) and a flat membrane keyboard (bad)



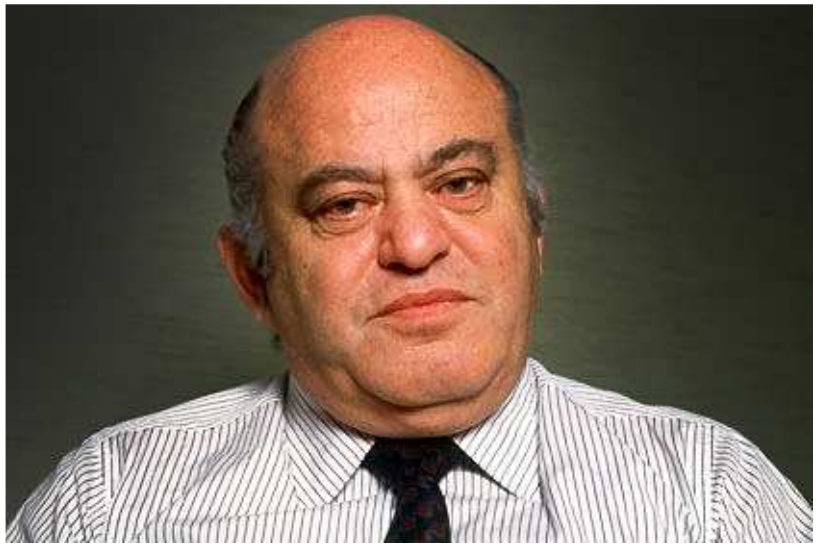
In 1979 I was general manager of Metacolor, a small company in San Francisco that did special effects for motion pictures (Logan's Run, Time After Time) and graphics for Atari games.

Atari gave us a prototype of a new computer called the Atari 600 and made us a beta test site. My staff would not stop playing a game called "Star Raiders" so I took the machine home.

Three days later – at 6:00 a.m. - I saw a thin shaft of sunlight streaming through the curtains and realized I stayed up three nights with NO SLEEP playing video games! The next day I quit my job.

I took BASIC programming classes where I used Apple and Commodore computers. I had studied journalism in college so I started writing magazine articles on personal computing – my first article was about the Star Raiders game!

I hung out at Apple in Silicon Valley and got to know Steve Wozniak and Steve Jobs. After 6 months I had job offers from Apple and Atari.



In 1979 Commodore was the third largest personal computer in the U.S. and number one in Europe.

Apple and Radio Shack were the top personal computer makers in the U.S. *(but weak in Europe).*

A meeting with Jack Tramiel

In March 1979 I had job offers from Apple and Atari but Apple was "papa bear" – too many geniuses. Atari was "baby bear" — not enough geniuses. Commodore was "mama bear" – half geniuses, half "idiots."

I arranged an interview with Jack Tramiel and told him very bluntly what I thought was good and bad about Commodore.

He said "Call me tomorrow and I'll decide what to do with you."

The next day I called ELEVEN TIMES and each time the secretary gave me some excuse – finally at 7 p.m. I called and Jack answered the phone.

He asked me to come in the next day and hired me as Assistant to the President and Marketing Strategist.

The Birth of the Home Computer

April 1, 1980 – On my first day I joined Jack at a meeting of international Commodore managers in London (UK).

At the meeting Jack said, "I want to make computers for the masses, not the classes" – and described his vision for a small color computer.

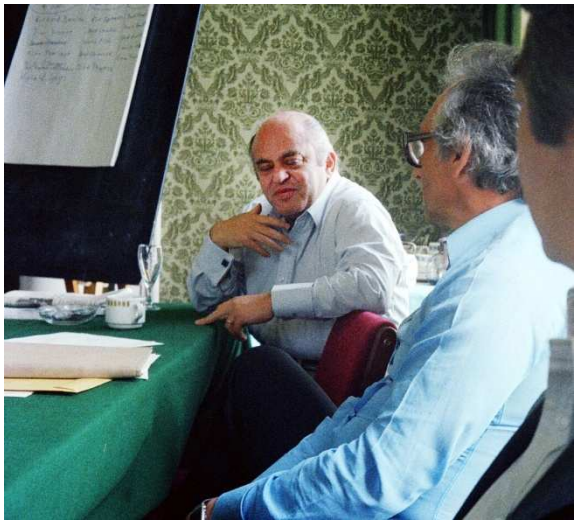
The engineers wanted a larger Apple-style computer. They showed us a prototype that looked like the Apple II.

Michael Tomczyk at Windsor Castle

Left to right: *Chuck Peddle, the head of manufacturing, Sam Tramiel (Jack's son) and Harald Speyer (Commodore Germany).*

Chuck Peddle showed a new prototype computer that looked like an Apple II.

These rare photos are all from the April 1 meeting.



Left: Jack at the meeting and (right) with Kit Spencer. He knew what was needed.

Michael Tomczyk (arguing for the home computer).

Dick Sanford (center) was Executive Vice President and number 2 in the company. He was supportive of the new computer but also recognized the need for a "business" version. This shows him talking to Chuck Peddle and Kit Spencer on April 2, 1980.

The Birth of the Home Computer

Everyone was against the idea of a small color computer except a few people. Kit Spencer (UK), Tony Tokai (Japan), and I were the main supporters.

The next day, Jack returned and most people argued against the new computer.

Finally, Jack stood up, banged his palm on the table and declared, "The Japanese are coming…so we will become the Japanese!"

Everyone fell silent. His logic was simple and powerful.

The world's first true home computer was born.

My First 3 Weeks With the Company

Week 1 – London – Jack Tramiel said he wanted a small color computer.

Week 2 – Germany – we persuaded the German government to give Commodore a "failing" electronics factory in Braunschweig

Week 3 – Santa Clara, California – Jack asked me to evaluate the marketing department and after a few days he walked back and fired all of them (12 people). I became U.S. Director of Marketing.

Week 3 – Santa Clara – I wrote a 30 page memo and drew a happy face with a beard and mustache on the cover.

I gave it to Jack and told him whoever is in charge of the new computer needs to read this.

A few days later Jack came to my office and tossed the memo on my desk. He told me, "I've told everyone involved that they need to get your approval on anything to do with this – but none of them report to you so you'll have to use persuasion to get it done."

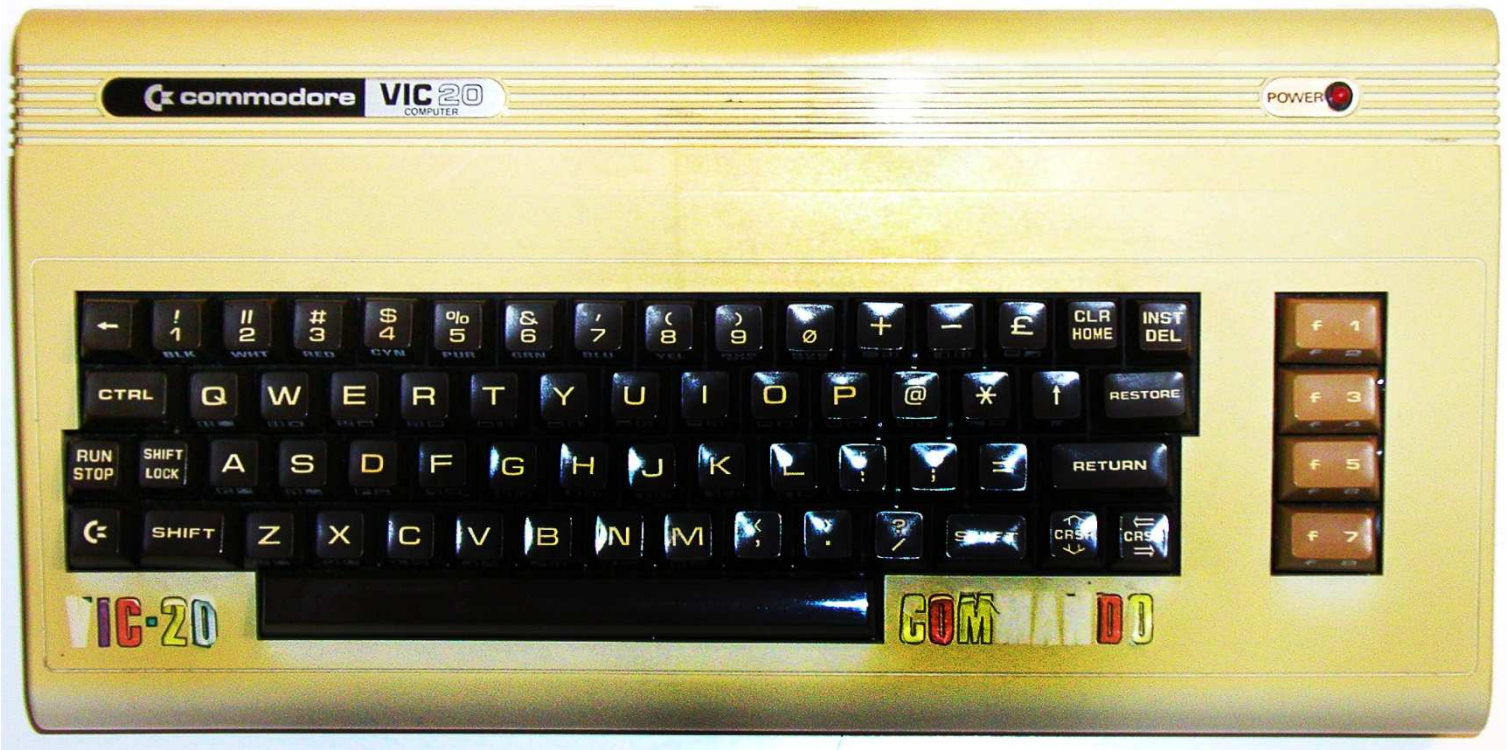
In Europe, I got to know all of the international managers and established several alliances and friendships. After the London meeting, Harald Speyer and I took the Commodore private jet to Germany.

Harald Speyer (left) and Michael Tomczyk – April 1980

The VIC Commandos

- I told everyone involved that there was one Prime Directive, like Star Trek: "This must be a USER FRIENDLY computer."
- Yash Terakura, the Japanese software engineer who designed the firmware, replied, "This will be a friendly computer because I am a friendly engineer!"
- I had to fight for full size typewriter keys (instead of a membrane keyboard), and beige color (instead of grey and black). The programmable function keys were adapted from some orange keys I saw on an NEC computer prototype in Tokyo.
- I hired a half dozen young computer programmers and hobbyists who were all self-taught. They were 18 to 25 years old (I was 32 in 1980). We wrote the user guides and created the first software.
- Everyone kept stealing our equipment for trade shows so I called the group the VIC Commandos and we each got a brass coin which was our symbol. I announced one day that I would fire anyone who stole our equipment without permission.
- The editor of BYTE Magazine was a friend – one day he sent me a note that said there is a German word for user-friendliness – Benutzefreundlichkeit – and this became our official motto.

This is my original VIC20 prototype which I used to create the user manual, programmer's reference guide and software programs we sold on cassette tape. It is now yellow with age – you can see the stickers I put on the case that say "VIC-20" and "Commando."



The first computers kept overheating after 5 or 6 hours, but they came back to life if you put a bag of ice on the circuit board. After the first 100,000 units, we added a heat synch to dissipate the heat.

Commodore

VIC-20

The computer was introduced in Japan as the VIC1001 in September 1980. We launched it as the VIC20 in January 1981 at the U.S. Consumer Electronics Show. The distinctive logo and graphics were designed in the UK & Germany.

Disk & Tape Drives

Hi-Res Video Games – joystick port; sound & graphics chips; sprite animation

Programmable function keys

5k RAM expandable to 32K – we sold 8k, 16k and 32 memory expansion cartridges

Built in RS232 telecommu-nications interface

Full size typewriter style keyboard

Software on cartridge, disk and tape cassettes – I hired an artist to do the distinctive package illustrations.

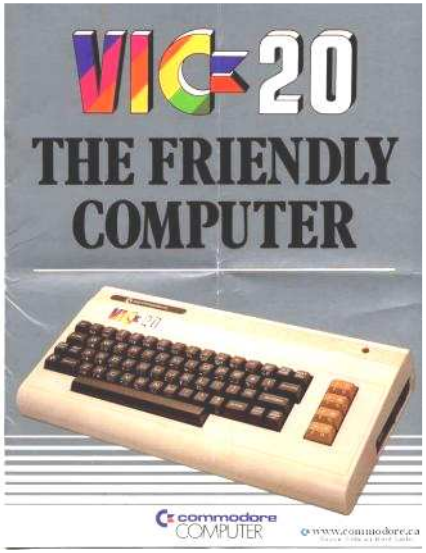
The VIC20's RAM memory was only 5 Kilobytes! That's equivalent to the letters and spaces on one sheet of typing paper!

The Name Game

I wanted to call it the Commodore Spirit but spirit means horrible ghoul in Japan so I called it VIC after the Video Interface Chip and added the number 20. When Jack asked "why 20?" I replied "because Vic sounds like a truck driver and 20 is a friendly number."

The VIC-20 became the first microcomputer to sell one million units.

Jack and I felt strongly that this was a computer that any home user or school could afford to buy. Teachers started teaching algebra at an earlier age because programming includes algebra. We quickly did a PAL version for Europe and I worked very closely with Kit Spencer in the UK.



The Price Game

I set the price at $299.95 because the only computers with similar features were selling for $600.

I told Jack this was a "friendly price."

Commodore

VIC-20

In 1980, computers used acoustic telephone modems that cost US$400.

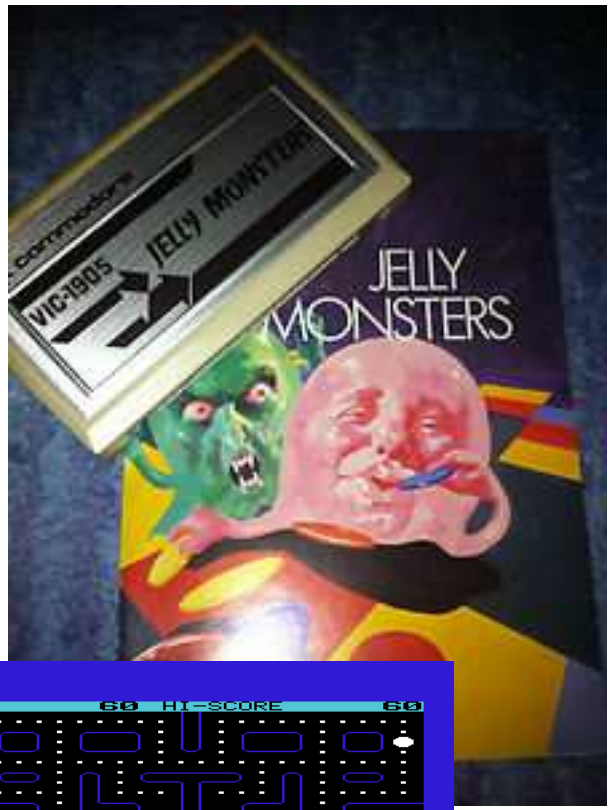
I contracted a small industrial modem company to design a modem that would cost $33 to make – so we could sell it for $99. They showed me an acoustic design but it was too expensive so I told them to put it on a game style cartridge…

TRIVIA: ***We were selling so many VIC20's that we couldn't handle all of the customer service inquiries and technical questions - so we needed a way for Commodore user clubs to network so they could help answer questions.***

The result was the VICModem, the first computer modem priced under $100. I negotiated free telecomputing services worth $197.50 — the free services were worth more than the modem! VICModem became the world's first million-seller modem.

VIDEO GAMES FOR THE VIC-20

Commodore's Pac-Man – Uh, I mean…Jelly Monsters!



Commodore Japan secured the rights to convert several Namco games including Pac-Man…unfortunately Bally Midway and Atari owned the rights in the United States.

The Commodore version was hi-resolution compared to the Atari game version which was very pixelated and very crude looking.

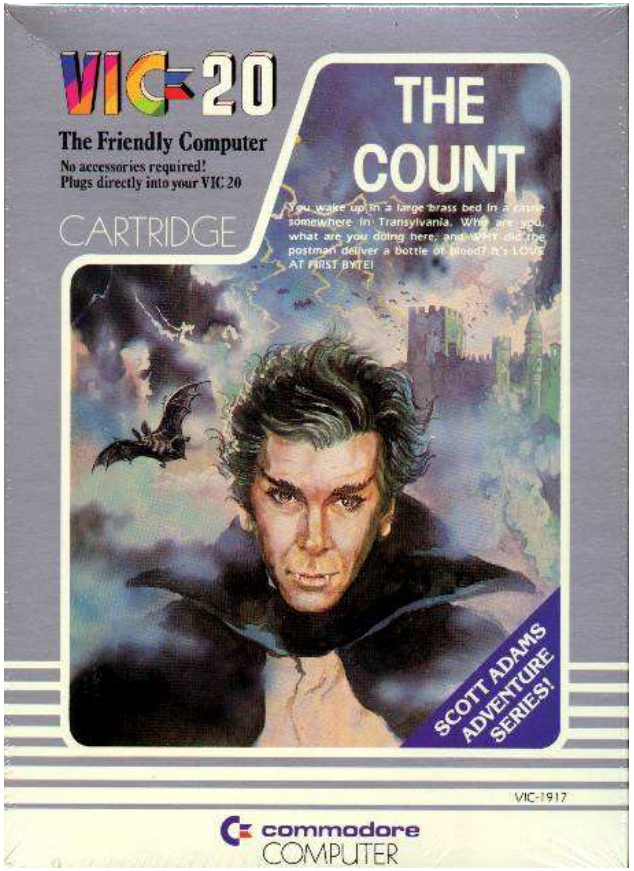
When we saw the game, Jack decided to sell it in Europe as "Jelly Monsters."

"You know Atari is going to sue us," I warned — to which he replied, "That's okay. We'll escrow a royalty and when they sue us we'll pay them the royalty as the settlement and stop making the game, but by that time we'll have sold a million."

And that's exactly what happened. Jelly Monsters helped us sell millions of VIC20s.

VIDEO GAMES FOR THE VIC-20

Scott Adams Video Games



The first VIC20s didn't have enough video games so I contracted for 7 adventure games from Scott Adams. Scott was the first person to create an adventure style game for personal computers. These were TEXT games.

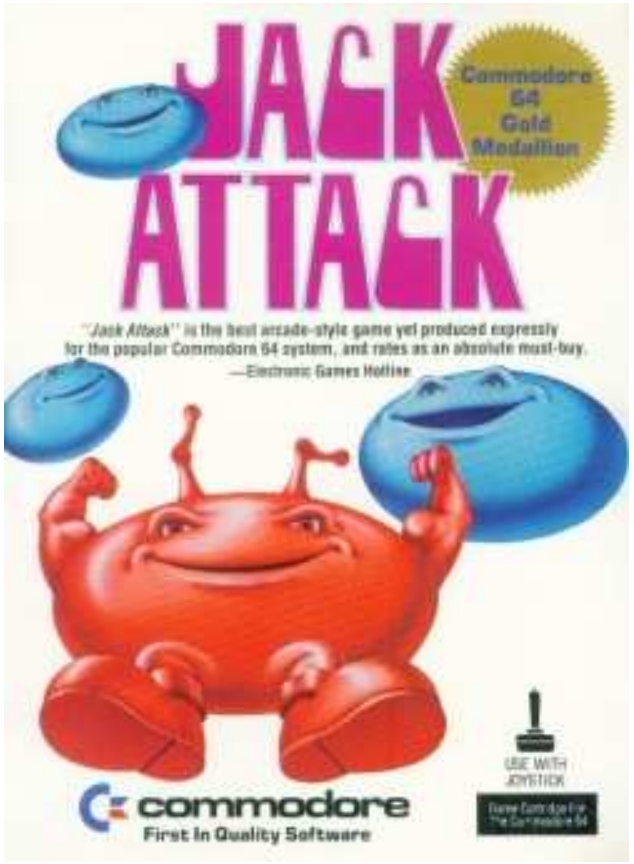
These games showed other game designers what was possible – jump starting the game market.

I contracted an artist to do the package design. For "The Count" the artist made the vampire look too much like actor Frank Langella who was starring in a popular vampire movie, so he had to change the facial features.

The VIC Commandos did a "6-pack" of games on cassette tape including "Blue Meanies from Outer Space." The 6 pack could be sold by retailers as a set, or sold individually.

VIDEO GAMES FOR THE VIC-20

JACK ATTACK!



We had licensed an interesting video game for our cartridge series and were looking for a name when we had a quirky idea.

Jack Tramiel was known to be very intense during meetings – he was tough, hard driving and sometimes brow-beat executives if they showed signs of incompetence or weakness.

A meeting with Jack that had a bad result was known around the company as a “Jack Attack.” It was a joke we all shared.

So when one of our games needed a name, we decided to call it Jack Attack. Jack himself thought it was funny and ironic.

Commodore Information Network

After the VICModem was launched, I created the Commodore Information Network which was accessible through CompuServe and hired an editor to manage it . The Commodore Information Network was one of the first Internet style user communities.

In those days, the portals and networks paid us for providing content (which is the opposite of today).

One day Jack came storming into my office angrily waving a check for $32,000.

“What’s this?” he demanded. “Why is CompuServe sending us money? Did someone do a deal I’m not aware of?”

I laughed like crazy and told him, “That’s the royalty check – they pay us that because our information network is the largest community on CompuServe!”

“Oh.” Jack just nodded and smiled and walked out, staring at the check.

Marketing the Friendly Computer™

One day I noticed that Atari's package had a trademark after the phrase "Computers for People." I rushed to our legal department and asked, "Can they do that?" The lawyers said they could.

"Then we're going to trademark The Friendly Computer" I said.

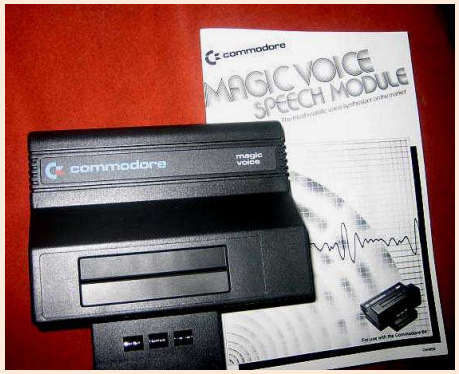
From then on, the VIC-20 was known as The Friendly Computer – and competitors had a tough time calling their computers "friendly" because of our trademark. In those days, computers were NOT considered friendly.

We hired Star Trek star William Shatner as our advertising spokesman – one of my coolest experiences was showing Bill Shatner how to use a computer…it was the first time he used a REAL computer!

In 1982, we launched the Commodore 64 , a full-featured 64K color computer capable of running the top 4 killer apps: wordprocessing, spreadsheets, graphics and databases.

This was the most successful personal computer ever sold…between 17 and 25 million were sold. The retail price was US$595.

Accessories included a color monitor, floppy disk drive, speech module (the Magic Voice), IEEE and CPM interfaces and much more.



The Magic Voice Speech Module

The engineer who developed “Speak and Spell” for Texas Instruments designed a custom speech module that we calledThe Magic Voice. I defined the 256 word vocabulary for this module and it took me several weeks to choose the words. The voice synthesis was very futuristic. This was one of our most cutting-edge innovations.

REVENGE…AND DISASTER

In 1983, a business magazine reported that Texas Instruments had a larger market share than Commodore but we knew that wasn't true.

On April 4, 1983, Commodore cut the VIC20 price to $99. Our engineers learned that Texas Instruments was LOSING $25-$30 on their TI 99/4a home computer and only made a profit on their software and accessories!

At the June 1983 summer Consumer Electronic Show in Las Vegas, Jack cut all our software and accessory prices in HALF – 2 weeks later, Texas Instruments announced they were closing their home computer division!

TI almost drove Commodore out of the calculator business in the 1970s. In 1983, Jack drove TI out of the home computer business!

This strategy BACK-FIRED on Jack Tramiel.

1)Texas Instruments dumped their computers at bargain prices to clear their inventory.

2)Commodore retailers demanded free products and cash to "stock balance" and make up for the price cuts.

3)The 4th Quarter of 1983 was a financial mess as a result of the TI dumping, 50% cut in prices, and retailer balancing.

JACK TRAMIEL LEAVES COMMODORE

Irving Gould

Jack Tramiel and Sons
Atari Corporation
(From left to right:
Garry, Sam, Jack, Leonard)

Jack's 3 sons were all experienced in business. Gary worked in banking and investment, Sam ran companies in the U.S. and Asia, and Leonard helped design the original PET. and had a Ph.D. in physics.

In January 1984 at the Board of Directors meeting, Jack was planning to nominate his 3 sons to join Commodore's management team to continue the company's culture of innovation. Instead, Irving Gould, Chairman of Commodore and the largest shareholder, coldly forced Jack to resign and offered to buy half his stock. It was a coups d'etat.

Jack was on a jet back to California while the board meeting was still in progress. *(I learned the news immediately from our corporate attorney's assistant, who called me to let me know.)*

Irving said he felt that "professional management" was needed and he saw Jack's price-slashing strategy as reckless, even though it left Commodore with more than 60% of the home computing market. He assigned the management of the company to a group of older men in their 50s and 60s who did not understand personal computing.

Most of the "Commodorians" who built the company were shocked and saddened.

LIFE AFTER COMMODORE…

1. Jack took a 6 month trip around the world with his wife Helen.
2. Commodore's stock plunged from $90 to $6 in six months.
3. Warner Communications invited Jack to take over Atari, which lost $1 billion in 5 years. Jack turned Atari into a family business run by his sons. Atari was profitable in 6 months. I had dinner with Jack in New York and he told me Atari would be a "blood family" business and there was no role there for me.
4. At Commodore, new products were cancelled. 35 managers, engineers and marketeers left the company in one week in May 1984 (including me). No one invited us to stay.
5. Commodore bought the Amiga computer from external developers for $23 million. It was the company's only real success.
6. Commodore became the largest seller of IBM PC clones in Europe. Home computers were replaced by personal computers and Commodore did not keep pace with the market.
7. The company never recovered. Several people tried to run the company but they were all weak and ineffective. Commodore descended into a slow "death spiral" and went bankrupt in 1994.

FOOTNOTES…

Jack retired in the late 1980s and Sam became CEO of Atari. When Sam had a heart attack in 1995, Jack came out of retirement briefly. He sold Atari in a reverse merger, which created JTS Corp in 1996. Jack's sons remain involved in the family's investments and philanthropic activities.

Irving Gould died in 2004 at the age of 84. He is widely credited with killing a billion dollar company.

Michael Tomczyk joined the Wharton School in 1994 to help launch the Mack Center for Technological Innovation, where he is Managing Director and an enthusiastic innovation champion. In 2010 he earned a master's degree in environmental studies. He is writing a book on Nanoinnovation. Michael and his wife Nancy enjoy fossil collecting, scuba diving and travel.

Jack was co-founder of the U.S. Holocaust Memorial Museum (1993). Jack and Helen Tramiel visited Auschwitz with their sons in 2004.

Jack Tramiel died in California on April 8, 2012 at the age of 83. He will always be remembered for his mantra, to make computers "for the masses, not the classes."