

# A short history of consumer tech

I am Richard Sherwin and in my hand is pretty much the history of consumer technology for the last 60 years.

Soon you will be seeing and hearing some of the all-time greats in this industry, but before they speak I wanted to clear up some history of the products and services you use today.

Here is some good and bad news you may not know about:



**IBM, which employed several people in this room including myself, actually invented the best home networking, THE BEST and easiest home computer and early medical and health technology for**

**consumers.....and despite the terrific work of Bill Hughes, its Executive VP of Communications, stopped all**

of those initiatives 30 years ago because those devices were predicted to lose a few dollars. The losses were pennies considering Big Blue declined the Apple deal and eventually gave away that division to Lenovo.



**Bill Hughes, IBM**

**Apple Computer, which was floundering under the leadership of Jobs and Wozniak, kept that same PR woman, Barbara Krause.** Her endeavors overrode the then money losing product disasters and personality disorders of Apple and her work maintaining strategic

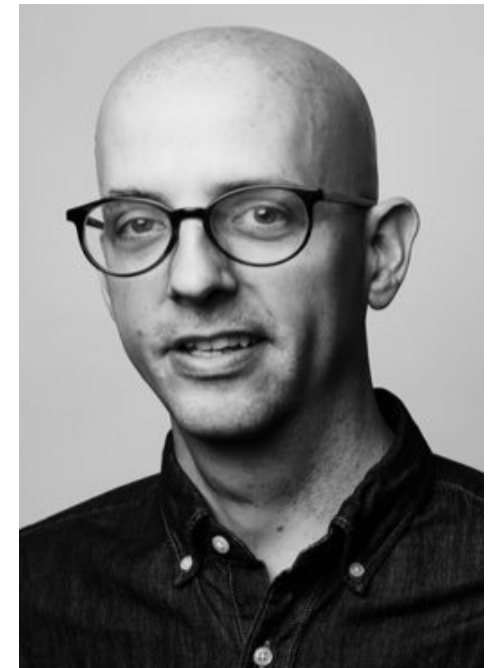
relationships with Wall Street and the media indelibly kept the company going through other CEOs until Jobs found himself and took a multimillion dollar loan from Microsoft, to rebuild what Jobs tore down and the rest is business and tech history.



**Barbara Krause and Betty Taylor formerly of Apple**

**Jeff Bezos, using little known PR firms, would literally give away swag or CHOTCH-kə to any newspaper, magazine, blog, or anyone with a pen that wandered into his media giveaways.** While touting a great book service he also pitched (with his PR firm) the fact that these consumer products he was giving away, would be available on his website soon in case any of the unwashed media wanted to

purchase them for their friends and relatives. And no matter how many times the media or analyst would ask “You are losing millions every day” Bezos would answer: Are you happy?



**Garland Harwood, who ran the Amazon swag shows**

**My favorite success story that literally would never gotten off the ground was the first satellite TV service dubbed DirecTV.** It was a collaborative effort of Hughes Company, RCA, GM and USSB. Despite the high priced scientists and marketing people surrounding this effort, it was a small PR firm led by Pam Golden, and

inside execs Frank McCann and Judy Fleming that had to go to many cities to pitch both the media and retailers, which would eventually help make this technology a reality.



**Pam Golden**

**If you use Sirius XM in your car or at home, you'd be surprised to learn that despite tons of money invested in the two competing satellites, its inventor Martin Rothblatt, who eventually changed his name to Martine Rothblatt, literally went door to door with the then pre silicon valley (California) and silicon alley (New York City) money people to get this service off the ground.**

A notorious super salesman, the late Joe Clayton (RCA,



**Martine Rothblatt**

DirecTV and many more companies) was enlisted to convince car manufacturers, dealers, and radio content providers that this expensive endeavor could make money.

Rothblatt, as an undergraduate, became a convert to Gerard K. O'Neill's "High Frontier" plan for space colonization after analyzing his 1974 *Physics Today* cover story on the concept as a project for Professor Harland Epps' Topics in Modern Astronomy seminar

Rothblatt subsequently became active in the L5 Society and its Southern California affiliate, Organization for the Advancement of Space Industrialization and Settlement (OASIS).

During her four-year J.D./M.B.A. program, also at UCLA, she published 5 articles on the space colonization to the law of satellite communications and prepared a business plan for the Hughes Space and Communications Group



**Joe Clayton**

titled *PanAmSat* about how satellite spot beam technology could be used to provide communication service to multiple Latin American countries.

She also became a regular contributor on legal aspects of OASIS newsletter. In 1990 she founded the Satellite Radio company

eventually merging with XM Radio...But it was her 24-7 pitching of the technology made these competing technologies a reality.

**Many industry experts claim that both Sirius and DirecTV and eventually Dish Network would have died if not for the late Joe Clayton, who barely knew how these technologies worked, but literally had the name and number of every retailer in the U.S. and never stopped calling until he passed in 2018.**

# Welcome to the transistor age

--Irwin Braun

The electronic revolution began in 1947, when the transistor was invented by two American physicists, John Bardeen and Walter Brattain. They worked in the lab of William Shockley at Bell labs in New Jersey.

For their achievement, they all received the Nobel Prize for physics.

The operation of many of the electronic devices that we use daily—from our TV sets to our cell phones—is based on the research and production of the first transistors and how they were made.

Historians have proclaimed that the transistor changed the Twentieth century, the way the steam engine changed the 19th century.

Essentially, the transistor is a solid state device with three connections capable of amplifying sound. Prior to the invention of the transistor, all radios used vacuum tubes . And you certainly remember vacuum tubes in you radios and first TV sets

They looked like light bulbs, but they had three filaments. (light bulbs have two). They were big, heat producing and subject to breakdowns.

The first transistor radio was invented in 1954 at Texas Instruments in Dallas, Texas. This electronics firm also manufactured transistor radios.

The first transistor radio was produced by Emerson, an American company in 1954. It

became the most popular electronic device in history with billions produced in the 1960s and 70s.

In 1955, SONY, then a small in Tokyo under the name Tokyo Telecommunications Engineering Company the first Japanese transistor radio: the TR-55, a five transistor AM radio.



**Akio Morita**

The company was founded by two physicist/engineers, Akio Morita and Masaro Ibuka. Morita's family, having made a fortune in the Saki business put up most of the money. The brand name SONY was based on the Latin word for sound, "sonus."

Having obtained a licensing agreement from Bell Labs to use the transistor, SONY set up an American subsidiary, the SONY Corporation of America. They were located in a storefront on Broadway near Spring Street in lower Manhattan. A very modest and inauspicious beginning in America.

I personally got involved with SONY in 1960, when they were marketing their first transistor radios. I had an advertising art studio in New York City and I solicited the account...And amazingly got it!

It was a game changer for me. The person supervising marketing was an experienced electronics salesman named, Milton Thalberg. He eventually became my mentor and advisor for many years.

My firm created all the print national advertising for SONY from 1960 to 1963.

Thalberg had only one

directive to me: Make Sony look like an American company. There was still a lot of resentment in America about Japanese companies after World War II.

So we advertised in the leading magazines—Life, Look, the New Yorker, National Geographic, Holiday and other publications.

We used the best photographers in New York like John Abbott and Gary Winograd. A lot of the photo shoots were on location in places like Jones Beach ...which turned out to be quite a challenge.

In the mid-1960s, Sony introduced a black and white transistorized TV set with a 5" TV screen. It retailed for \$130. and it also operated on a car battery so you could watch TV while driving. It sold like hot cakes .

And back in those days Sony

was sold in exclusive electronics stores like Liberty Music Shops. The products also sold for full list price—no discounts.

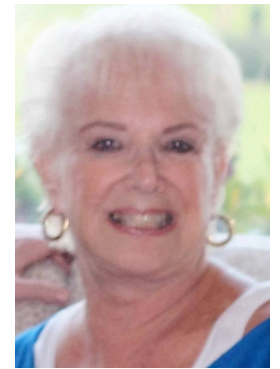
In the mid-1960s Sony introduced a home video tape recorder that sold for over \$2,000. All the rich and famous personalities had to have one from Sammy Davis Jr. to Johnny Carson .

In 1963, my friend, Milton Thalberg left Sony and the ad account moved to Doyle, Dane and Bernbach. But my firm, Braun Advertising continued to handle Sony's Industrial Division until the mid-1970s.'

And that is my brief, but spectacular Involvement with Sony as a "Madman" in New York City.

# My work at trade shows

-- Ellen Behrend Parker



I've been very fortunate in my career to be doing what I loved. For 35 years I've been attending and developing trade shows for the industrial and corporate markets internationally.

A trade show is an event held to bring together members of a particular industry to display, demonstrate and discuss their latest products and services.

Major trade shows usually take place in convention centers in larger cities and last several days. Local trade shows may be held at a local arena or hotel and allow businesses in the area to connect with prospects. Generally trade shows aren't open to the public and can only be attended by

company representatives and the press.

Exhibitions are an opportunity for a large numbers of buyers and sellers in an industry to come into direct contact with each other - at the same time sell product.

In 1975 I joined a company called Tepfer Publishing Co, the publishers of Videoplay Magazine, The Videoplay Report, a magazine called E & I TV Magazine (Educational & Industrial Television) and a trade show called the LA Videoshow.. Every manufacturer that had product for the educational and corporate market had to be at this trade show to reach this audience.

These were the same companies that showed at the NAB (National Association of Broadcasters) but on a smaller scale. I'm talking about Sony, Panasonic, JVC, Ikegami, The products shown at NAB now are Asset Management, Automation, Audio Production, Processing and Networking Cameras, Camera Support and Accessories. Cloud Computing and Virtualization. Display Systems/Digital Signage. Graphics, Editing, VXF, Switchers. Hardware.

At that time the NAB was only held in Las Vegas so we were able to capture THE Los Angeles market. I used to see many movie stars, directors, etc come to the show to view the products if they couldn't get to Las Vegas.

As the years progressed I watched the equipment get smaller and smaller. ‘

Editors of all the competitive publications came to the Expo, including Marge Costello who at that time was with Videography Magazine from 1980-85.

I left Tepfer Publications to join Knowledge Industry Publications in 1982 as VP Sales. Soon after I joined them we purchased the LA Videoshow and changed the name to Video Expo to conform to all our other regional trade shows which gave us markets in every region of the country.

Not only were JVC, Sony, Panasonic, Hitachi, Ikegami, and Ampex there with booths that I called huge pieces of Real Estate but we also captured all the dealers and distributors of these manufacturers when the Video Expo was in their particular region. Peter Caranicas, who

is still working in the TV industry was on our staff which also included Pat Casey, the editor of Mediaware Magazine. We had consultants to the show which included James Fiedler, Sr. VP of Sony.

I tried to get photos of the shows from my past colleagues but remember: while we were at the forefront of technology, we were still not in the digital age for the show photographers - and pre-Smart phones. The photos were taken by photographers who came to the show. I do have this one of me with Harry Reasoner.

Other trade shows that I was involved in while with KIPi was Intelmart for the Teleconferencing industry, E3, the Electronics Entertainment Expo and Show Biz Expo.

On March 31, 1997, digital video disc (DVD) video players were first released for sale in the United States. Rather than marking the end of DVD's

early troubles, however, it was only the start for new ones.

The latest show that I was involved in is one that I conceptualized and launched in 2001. This happened by accident while having lunch with the Marketing Mgr. of Panasonic, John MacDonald. Although DVD showed signs of developing again in 1997, we discussed the fact that there wasn't any trade show specifically to help them market their DVD duplicating equipment.

That was all I had to hear. It took me almost a year to find other companies that needed our help to find them customers and to market to their audience. This trade show became the first only international DVD trade show called Replitech which I then marketed in the US, Europe and Asia, three times a year beginning in 2002.



To begin the process to launch a new trade show you have to think about the subject.

The first step is to find the right companies to exhibit who want to show their products and to also be able to find them customers, then we needed to establish a conference program to educate the market, after that you have to market to the right audience that will come to the trade show and conference program. The last step is advertising the event itself.

Trade shows are important because they offer a platform to market to potential buyers and then be able to sell product to those exact same customers. These initial leads and sales will turn into more leads and more sales, meaning that you just need a couple of successful sales to get the process going. For

companies that cannot invest large sums of money in publicity, trade shows enable them to market their products in front of buyers in a single place.

The beauty of a trade show is that you can share your product or service with a pre-selected audience while you investigate the competition and build relationships with new customers.

I've seen companies come into the Exhibit Hall early in the morning before the Hall opens for business and take pictures of some of the product. The next thing we hear about are Asian companies developing the same products as some of the European companies. This happens in every market.

While trade shows can be a significant investment, there

are many benefits that can boost your brand presence, increase sales and establish customer loyalty. A way of building your brand and raising awareness with potential customers is to network and get noticed at the show. And most importantly is to do your homework back in the office before you even come to the show.

# The evolution of the space age

--Robert Slatkin

The Space Age is generally considered to have begun with the October 4, 1957 launch of Sputnik 1 by the Soviet Union and continuing to the present day.

Sputnik 1 was the world's first artificial, basketball-size satellite, orbiting the Earth in 98 minutes and weighing 183 lbs.

The launch of Sputnik 1 ushered in a new era of scientific and technological achievements that became known as the Space Age.

The following year, 1958, saw the creation of the National Aeronautics & Space Agency (NASA). Then, on September 12, 1962, Pres. John F. Kennedy delivered a speech at

Rice University before nearly 50,000 people. By that time, America had launched but four men into space--the suborbital flights of Alan Shepard and Gus Grissom and the nearly identical three-orbit journeys of John Glenn and Scott Carpenter. Buoyed by the success of those missions and well aware of the dangers that lay ahead, the president rearticulated his vision and reissued his challenge to reach the moon before 1970.

"We choose to go to the moon, in this decade and do the other things, not because they are easy, but because they are hard. Because that goal will serve to organize and measure the best of our energies and skills."

The assassination of President Kennedy, in the words of flight director Gene Kranz, turned his vision into a "quest to do it and do it in the time frame he allotted."

On July 20, 1969, Neil Armstrong stepped off the ladder of the lunar module known as Eagle, taking "one small step for man, one giant leap for mankind."

The Space Age was characterized by the rapid development of new technology and a race for achievement, mostly between the United States and the Soviet Union. Rapid advances were made in rocketry, materials science, computers, and other areas.

Much of the technology originally developed for space applications has been spun off and found additional uses. Examples of spinoffs include:

**CMOS Image Sensor:** When NASA needed miniature cameras for interplanetary missions, they created the CMOS active pixel sensor. CMOS, a type of image sensor, is the eye of the camera, capturing the light and turning it into the image we see. They are smaller and have a low manufacturing cost than other image sensors. Today, it exists inside your DSLR camera, cell phone cameras and is even used in medical imaging and dental x-ray devices.

**Memory Foam:** Many people know what memory foam is, but not necessarily where it

derived. It was originally designed by NASA-funded researchers with the intention of keeping test pilots cushioned during flights. Now, it's used in beds, couches, shoes, and many other everyday items!

**Scratch-Resistant Sunglasses:** In the 1980s, NASA's Ames Research Center conducted research on ways to protect astronaut helmet visors from scratches, as well as increase their ability to filter out UV-rays and enhance colors. This technology is now applied in consumer sunglasses, ski goggles and welder masks

**Cordless Vacuums**--During the Apollo program, NASA partnered with Black & Decker to create battery-powered tools that could be used for Moon exploration. This "wireless"

technology is now used in a variety of consumer products, including the Dustbuster cordless vacuum.

As of 2016, NASA has published over 2,000 other spinoffs in the fields of computer technology, environment and agriculture, health and medicine, public safety, transportation, recreation, and industrial productivity. Contrary to common belief, NASA did not invent Tang, Velcro or Teflon.

The Space Age reached its peak with the Apollo program that captured the imagination of much of the world's population. The moon landing of Apollo 11 was watched by over 500 million around the world and is widely recognized as one of the defining moments of the 20th century.

In the United States, the Space Shuttle Challenger disaster in 1986 marked a significant decline in manned Shuttle launches. Following the disaster, NASA grounded all Shuttles for safety concerns until 1988.

During the 1990s, funding for space-related programs fell sharply as the remaining structures of the now-dissolved Soviet Union disintegrated and NASA no longer had any direct competition.

Since then, participation in space launches has increasingly widened to include more governments and commercial interests. Since the 1990s, the public perception of space exploration and space-related technologies has been that such endeavors are increasingly commonplace.

NASA permanently grounded all U.S. Space Shuttles in 2011 and has since relied on Russia to take American astronauts to

and from the International Space Station.

But on July 14, 2015, something amazing happened.

More than 3 billion miles from Earth, a small NASA spacecraft called New Horizons

screamed past Pluto at more than 32,000 miles per hour, focusing its instruments on the long mysterious icy worlds of the Pluto system, and then, just as quickly, continued on its journey out into the beyond.

Nothing like this had occurred in a generation--a raw exploration of new worlds unparalleled since NASA's Voyager missions to Uranus and Neptune--and nothing like it is planned to happen ever again. The photos that New Horizons sent back to Earth graced the front pages of newspapers on all 7



billion hits in the days surrounding the flyby.

At a time when so many think our most historic achievement are in the past, the most distant planetary exploration ever attempted not only succeeded but made history and captured the world's imagination.

New knowledge was created and our nation was reminded that it can still achieve greatness. And a world was reminded that we humans, we Earthlings--really can accomplish amazing things.

# “Fumbling the Future...”



This talk explores utter extremes of Vision, and lack of Vision, within the same company

“Fumbling the Future...” - a 1988 book by Robert C. Alexander & Douglas K. Smith

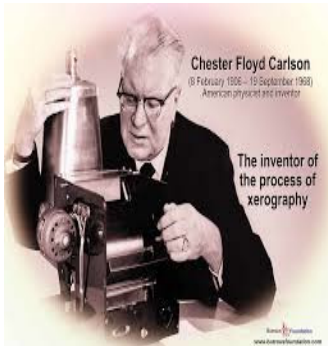
Personal Experience:

I was an engineer at Xerox for 32<sub>13</sub> years

# “Fumbling the Future...”



...but let's start at the beginning



- Chester Carlson – Physicist then Patent Attorney
- Never enough copies of documents
- Researched potential technologies
- Began experimenting at home, and then in a rented space in Astoria NY



← 1st xerographic image

# “Fumbling the Future...”



1938-1944: Carlson visited over 20 big companies

- Kodak
- IBM
- General Electric
- RCA
- AB Dick
- Remington Rand
- All were scared by the need for 7 manual steps
- NONE had the Vision to see the potential!<sup>15</sup>

# “Fumbling the Future...”



Timeline -

1938: Chester Carlson wrote up key patents

1944: Agreement with Battelle Research Institute

1945: Haloid – needed a new business

1948: Development Agreement

1958: 1<sup>st</sup> Xerox 914; fully automatic  
“electrophotography” -> “xerography”

1961: Haloid -> Xerox Corporation





# “Fumbling the Future...”



1958+: steady stream of overwhelming profits  
→ Invest in the “next big technology”

1970: Xerox showed Vision by establishing Palo Alto Research Center, in Silicon Valley.

They assembled a world-class team of

- Scientists
- Engineers
- Programmers

# “Fumbling the Future...”



Key PARC inventions:

- 1971: Laser Printer
- 1972: Object-Oriented Programming - “SmallTalk”
- 1973: Ethernet: computer communications
- 1973: World’s 1<sup>st</sup> Personal Computer - “Alto”

→ Apple Macintosh



# “Fumbling the Future...”



Key PARC inventions, cont'd:

- 1974: WYSIWYG Word Processor “Bravo”
- 1974: Page Description “Interpress” → PostScript
- 1975: Graphical User Interface (GUI)
- 1977: VLSI circuit design
- 1979: Natural Language Processing
- 1980 non-erasable Magneto-Optical storage
- 1982: Fibre-Optic Ethernet
- 1986: Multi-beam lasers

# “Fumbling the Future...”



Xerox management had the Vision  
for how to invest those huge profits, BUT

They had no idea what to do with the results -  
an astounding lack of Vision

The most famous example: Steve Jobs' visit to  
PARC

# “Fumbling the Future...”



1974: Steve Jobs, 24 yrs. old, offered a deal to Xerox:

Xerox buys 100,000 shares of Apple for \$1 Million,  
if PARC would “open its kimono” for a tour

People at PARC objected strenuously:

Jobs was the fox and PARC was the hen house

Xerox management ignored PARC objections  
and agreed to Steve Jobs’ proposal.

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The rest is history...

# “Fumbling the Future...”



During the tour, Jobs got so excited, that he danced around and shouted “Why aren’t you doing anything with this? This stuff is the greatest! It’s revolutionary!”

Years later, Jobs said “If Xerox had known what it had, and had taken advantage of its real opportunities, it could have been as big as I.B.M. + Microsoft + Xerox combined — and the largest high-technology company in the world.”

...but not without Vision

# My life as a Mad Man

-- Bruce Fabricant



Good afternoon. I'd like to begin by asking a question. How many of you watched an American period drama television series titled *Mad Men*?

For those of you who didn't see any of its episodes over seven seasons it was set in the 1960s. It followed the lives of people involved in the advertising business in New York City. The phrase "Mad men" was a slang coined in the 1950s by advertisers working on Madison Avenue to refer to themselves, "Mad" being short for Madison.

One of the documents that inspired the creation of *Mad Men* was a cultish, colorful 1970 memoir. It was titled *From Those Wonderful Folks Who Gave You Pearl Harbor*. That was a rejected advertising slogan for

Panasonic. The book was ad man Jerry Della Femina's expose of the Madison Avenue madhouse.

I was part of that mad house.

During the mid to 60s, 70's and 80's I worked for Grey Advertising, a giant in the industry. And yes, my address --- was 485 Madison Avenue. And in 1969 we picked up the Panasonic Company as a client. For 20 years I headed up the agency's public relations campaign that supported Panasonic. It was a quite a ride.

It's hard to imagine the antics of those times occurring in the modern workplace. Lunch time drinking was common place. There was a lot more going on. I'll attest to that.

But let me tell you, public

relations was and still is a valuable tool in Panasonic's arsenal in selling its products.

Panasonic Corporation of North America was founded in 1959 in New York City. The Panasonic name wasn't yet being used, and the corporation, with one office and a product line of four radios, went under the name of Matsushita Electric Corporation of America.

Today it is one of the world's largest manufacturers of electrical goods, sold under well known trademarks including Panasonic and Technics. And I would like to think that Grey's public relations campaigns over two decades went a long way in creating the image that Panasonic and Technics enjoys today.

I don't know if you know what PR is all about.

People talk about public relations. Most think it has to do with the press...and it does. Some people think it has something to do with sales....which it is. Others are sure that advertising is the same thing...which it isn't.

Finally, there are all kinds of PR. But all kinds of effective public relations have one thing in common. They sell an image...a product...a service...an idea.

While our Grey advertising conveyed a message about Panasonic's hundreds of products through controlled terms -- time that is bought on television and radio, or space purchased in newspapers and magazines -- product publicity lives or dies at the discretion of the editor or the writer.

And boy did we have to make friends with editors and writers

like my buddy Richard Sherwin here. We had to keep writers like Richard informed about Panasonic if we wanted him to write and endorse its products.

We had to get on the good side of Richard and other leading writers. I'll tell you how we did it shortly.

Over the years, we developed many outstanding Panasonic public relations positioning programs that used PR techniques to gain a "share of mind" with a particular public.

Let me tell you about a pr program we developed to help increase sales for Technics compact disc players.

Technics was introduced as a brand name for premium loudspeakers marketed domestically by Matsushita in 1965. The name came to wider prominence with the international sales of direct-drive turntables.

So what did we do on behalf of

Technics using public relations?

We arranged with 12 of the nation's leading classical radio stations to test Technics SL-P3 players for on-air use. Now suppose if you listen to WQXR radio in New York City and the on-air broadcaster informs you that he is broadcasting a CD program on Technics SL-P3 and raves about the product. Your favorable impression of the SL-P3 will grow considerably. And that's what happened.

We went well beyond the 12 classical radio stations.

Now let's talk about bribery. Call it an inducement for writers in leading magazines and newspapers across the country. This was a time when CDs were replacing vinyl records. A good friend of mine, a legendary PR pro, John Lissner, who worked with me --



would literally bribe writers by sending them CDs of their favorite performers. These writers could build and did build extensive libraries of CDs that we sent to them regularly.

For the really influential writers and editors, a good meal at a top New York City eatery would go a long way. And for the top of the line and most influential writers we'd provide Broadway show tickets. We'd bill Panasonic who would gladly pay the freight.

Oh by the way, along with the CDs we would send them press releases about the Technics player. The writers would use those press releases. In public relations, that's more than half your battle....getting the writers and editors familiar with your product. It worked.

I love sports and we used a lot of sports marketing to promote and help sell Technics equipment. Panasonic, early on, recognized that when you promote with sports you've got everything on your side...excitement, anticipation and news value.

With that in mind, we produced 24 minute sports films like --- The Heisman Trophy, The Possible Dream....Tennis Everyone....and Bullpen, the story of baseball's relief pitchers. I had the good fortune of writing the scripts for these films.

Each movie was 24 minutes long. We provided the movies to television stations in the top 30 markets. A two minute Technics commercial was inserted in each film and the TV station sold the remaining

time to local sponsors. The campaign went on for five years.

Gallup recently had a poll in which the public relations profession almost finished dead last with the worst reputation. Only the pharmaceuticals, the federal government and healthcare finished below public relations.

All I can say is that companies that use it wisely benefit greatly. Panasonic and Technics are firm believers in its benefits.

I'll leave it to Bill Gates who said, "If I was down to my last dollar, I'd spend it on public relations."

Thank you.