Rick,

I just came across your site and found it very interesting. I hope you don't mind, but it compelled me to pass on

some of Androbots history from my perspective. I'll try to keep it short winded, and please excuse the fact that  ${\tt I}$ 

remember few names at this point. I am digging up dates and names now. Just wanted to get this off. Hope you enjoy.

I received a call from Pradeep Shaw on ----. I was still at Atari and head of the engineering modelshop for the

home computer division. I had been hired to design and implement the first shop for the division. As was the

common approach at Atari, I was handed  $150\,\mathrm{K}$ , told to design, implement and head up the shop, and lock the door.

Pradeep had been the director of the design and tooling engineering department at Atari HCD and was an

effective and friendly leader. He had left about a month before Black Friday. The day 70 of the 140 employees

of the HCD were laid off. He called me about three weeks prior to the layoff and asked if I would be available for

an interview at Catalyst. I agreed. Having knowledge that my department would be untouched by the layoff, I had nothing to loose.

I interviewed with Pradeep on ----- at the 500 sq/ft office which served as the R&D area for Androbot in the

Catalyst building. I was given the drive assembly to critique and give cost reduction suggestions as my primary

interview test. I passed and after some conversation, left to return to Atari. A week later, I had my offer letter

and gave notice. I did not want to witness the scene that was to come. As it turned out, Black Friday was my last day and I will never forget it.

When I arrived at Catalyst for work, I meet Doug Jones and ----. Later, I met the software, linguistics and

sensor people. I was the 7th employee and found the whole thing pretty exciting. If not a little cramped. Around

two or three weeks later, Nolan came in and announced that we would be receiving something like six million

dollars and ceremoniously kicked out. Facilities were being scoped out and we would be moving in and getting

down to business in pretty short order.

The new facility was large and we had the budget to equipped it fairly well. In meetings, Nolan was very

generous and I found him to be a pleasure to deal with. On the down side, we had some top management with

their heads up their asses. Luckily, the hardware design group was chartered to create novel product to expand  $\,$ 

the capabilities and quality of our child. Management was best described as a thorn in our sides. They tried to

ignore us for the most part. Since we didn't listen, it was inevitable. Within a short time, we had fifty odd

employees and somewhere around 107 when our Black Friday came.

Hardware design was made up of four individuals. A German ? (Dutch?) aerospace engineer who had a two

sided nature and designed things to last a thousand years. The early Topos' had a drive base that was so over

designed and expensive that it became somewhat of a light hearted joke. His talent was undeniable. But he was difficult.

Doug Jones was our resident genius. A pleasure to work with and definitely tuned in to the other side. Among

his pursuits was the development of something he called "HyperTrig". A symbolic approach to geometry. He

used a calculator that he modified with his symbol logic. Worked great. Doug was very creative and was a

driving force for all of us. His main focus was on accessories. We had Topo working and we needed to come up

with useful things for him to do as well as address cosmetic details. Doug and I worked to refine the exterior  $\,$ 

with endless hours at the vacuum formers. We all attended ThinkTank sessions on the ethics of robotics and our

responsibility to the future. All these questions were very much on our minds and ultimately lead to the look and

perceived friendliness of the exterior. The end result reflected our desire to gain a certain familiarity with

children and not head into the organic or Star wars shapes. It is what it is. A faceted version of a six-year old.

When BOB was born, the possibilities were expanded exponentially. I was give the manipulator design and

aspects of other accessories. The forth member of the team (name?) was a bright guy assigned to sensor

integration. As we shared a large cubical, we prototyped our projects together. The  $manipulator\ arm\ worked$ 

well and as we progressed with BOB, he actually had some amazing capabilities. At one point, he was delivering

mail to the departments in the company. He would wander the halls and stop to chat, drop off the mail and take  $\$ 

off. His US mapping and IR sensor capabilities were extremely advanced. This, together with his speech and

recognition software gave him a very real autonomy and endeared him to the staff.

A story: I took a BOB home one night to test its ability to recognize my 20lb cat. My cat freaked at first and then

actually obeyed Bob's commands as the evening went on. My cat was trained to respond to thirty-two

commands. Occasionally he went to work with me and hung out in the car or my cubical. The morning I returned

with BOB, I buckled him into the passenger seat and left for work. I was running late and decided to take the

then new commuter lane to save time. A CHP motorcycle cop pulled me over and as he looked into the car, he

you where driving in a lane reserved for vehicles with two or more passengers. That's why its called a commuter

lane". I'm sorry, I said, I thought it said computer lane (and glanced over to BOB). I got off with a warning and a laugh.

The biggest problem we faced with BOB was interior space. Three MB took up a fair

amount of room in the

chassis. We fit a cardcage in the hope that we could expand the model as electronics shrunk. As it was, we had

little room for the drive systems for arms and other accessories. We experimented with expanding body

dimensions and head shapes but ended up with a fairly compact version of Topos skin. About midcourse into

the second gen BOB project, we got word that we had infringed on a patent concerning the canted drive

system. I think we ended up paying 80+K to satisfy the owner. That was tense for awhile. The design literally

revolved around that drive system. Anything else would have severely hindered the unique mobility the robots exhibited.

Needless to say, we worked like we were possessed. We produced so much work, I have a blank spot

concerning most of it. Skipping ahead, I'll pass on what was the beginning of the end.

We were ready. BOB was working very well and it was doing everything we had hoped. We needed money.

Production had parts for around seven hundred units. We'd been on TV, people were gaining interest and we

were actively seeking a capital partnership. A Large Japanese firm responded and agreed to tour the facilities.

It was decided that BOB would lead the tour. He was programmed by the marketing department with some

special subroutines. The plan was to have him lead the group through the facilities and comment on the

company along the way. BOB had several modes that worked to give him a personality. One mode was called

"Idle Mode". If he did not hear a question or have a comment for some determined length of time, he went into

this mode. The result was that he would sing or whistle a tune. Or talk. We were watching on closed circuit  ${\tt TV}$ 

as the group came down the longest hallway in the building. So far, he had stopped at the proper places,

introduced the department and moved on to the next. The group was smiling and chatting among themselves.

As he now moved down the long hallway, he went into Idle Mode and began to whistle. The group stopped,

looked at each other, did a one-eighty and stormed out of the building. We were stunned. The  ${\tt TV}$  had no sound.

We were clueless. A week later, Nolan called the company together in the back parking lot and unveiled a

beautiful gold stature of a Booby bird. He then made a speech and awarded it to marketing. The message was

this, If you have Japanese clients visiting, don't whistle the theme from "The Bridge over the river Kuai"

A month or so later, we were all assembled in the outdoor receiving dock and told that Androbot was going to fold.

It was a great experience and I am happy to see that some are keeping it alive!

Cheers