

To The Continuing End Of Eternity

Greg Toland

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by [[authors:Greg Toland]]

“..... and so ladies and gentlemen Consolidated Computers are proud to present to you the first positronic brain!” David Williams stepped back from the podium and with a feeling of embarrassment jabbed at the button to draw back the curtains to expose his and countless other experimenter’s life work.

The muted applause died down and David could sense the anti-climax amongst his audience. It was exactly the same response his bosses had given three weeks earlier. Why should the press feel any different from the so called experts who had funded it, admittedly not understanding what they were supporting. He turned to look at the brain, all eight ounces of it, enclosed in the plexpous dome with twinkling lights from the computer controlled display system. He wished that they had not agreed to the demands of the marketing men to make the presentation more glossy.

The positronic brain sat there linked to a number of external devices and controls. To the left was the speech interpretation unit. God, he thought. Doesn’t it look dreadful. He wished that they had the extra two months that they had requested, before it was presented to the public.

Mind you the vision sub-system did not look much better, the whole thing looked as if it had been thrown together in a matter of weeks, which unfortunately was what had happened when the planned design proved to be totally unsuitable.

Questions started to come from the floor to derail his train of thought.

“Doctor, why is this such a quantum leap in computer technology?” That was the planted question that he hoped would be asked first. “Well in order to answer that I think a little history is in order. You are all aware of the development of the computer from the early electro-

mechanical calculating machines, through the valve to the micro-processor.....?”

He tailed off looking around the room at the nodding heads. “Good. That will save us some time. Now what are the disadvantages of this form of the computer.”

He started to tick off the points on his fingers. “One, it requires a relatively large power supply both physically and in energy terms. Two, it can only operate in a very restricted manner defined exactly by its programming. Three, it ...”

Before he could continue the interruption he was dreading came in from Alton Ferdinand, “Are you therefore saying that this computer..”. He seemed to make the word an insult. “...operates the way it wants to and therefore cannot be controlled?”

“No, that is not what I’m trying to say. If Mr. Ferdinand would listen to the facts and not try to put his prejudices over to this audience.....” began David.

Too late, Alton was in full flow. “These machines are depriving mankind of his humanity. They are abominations that have no place in our society and here we even have one of their creators telling us that they are uncontrolled”

David saw his opportunity to respond and leapt at the chance. “I’m glad I have the opportunity to address that issue for my colleague from the Divine College”. He hoped that the comment would be taken with the right amount of sarcasm.

“A long time ago this problem was anticipated by a science fiction writer called Isaac Asimov, and he devised the Three Laws of Robotics and I would like to quote them to you from one of his books.”

He reached into his pocket and pulled out a battered copy of I, Robot. This was a deliberate ploy. He hoped that the production of

an actual antiquarian book would carry more weight with the audience than using the book films and medias that replaced them.

He started to read.

“First Law: A Robot may not injure a human being, or, through inaction, allow a human being to come to harm

Second Law: A Robot must obey the orders given it by any human being except where such orders would conflict with the First Law

Third Law: A Robot must protect its own existence as long as such protection does not conflict with the First or Second Laws”

He paused dramatically at the end of the Laws, somehow they always had a capital letter in his mind. “These Laws have been incorporated within the positronic brain and all actions controlled by the brain are constrained to operate within these bounds. They are fundamentally safer and more controlled than you or I or any other human could ever be. You can have nothing to fear from them.”

He could see it was a losing battle and the press conference went rapidly downhill from that point onwards. He waited with trepidation for the telecast newspaper coverage of the announcement. He turned rapidly to the centre pages and there in practically each and every one was the headlines he had been dreading.

‘Uncontrolled Computer Created.....Antediluvian Lunatic Science Fiction Writer devised Control Program’.

He turned away in disgust.

“Well what did you expect”, said Thor Simpson. “You walked straight into it with that crazy comment about Asimov!”

“But, it’s the truth. That is where the basics were taken from to incorporate into the Posian Rule Generator, and if we hadn’t done that.....”

“So what”, interrupted Thor. “You know that, I know that, and so do many of the other developers but to spout that nonsense in front of a hard nosed critic like Ferdinand was suicidal.”

David wondered where could they go from here. All of the budgets were spent, no he corrected himself - overspent, and the company would not be prepared to fund any more research and development. Probably his best bet was to get out and find another company who were working in a similar field of research and development.

It was a very long and miserable journey home that evening. His wife Sue knew the moment he walked through the door that the presentation had not gone well. She waited quietly for the explosion of pent-up frustration that she knew would come.

“How small-minded and short-sighted can an organisation be? We are standing at the edge of a new technology which will become a society shaking

He went on for a few minutes during which Sue was able to do little more than nod. It was a diatribe she had heard many times before.

She eventually asked, “So what are you going to do about it?”

“I don’t think it will be down to me in the long run”, he replied. “There’s a meeting first thing tomorrow in Wilson’s office and I think the project will be closed and we’ll either be redundant or reassigned to other activities”.

“What’s likely for us?”

She thought of the monthly bills. They weren’t badly off but of course they needed the monthly pay check.

“Oh, I don’t think I’ll have any problems”, he said with what he hoped sounded like confidence. “I’ve been there sufficient time that I won’t be classed as a ‘newbie’ but also there’s people like Adams who they’ll let go first”.

He knew though that if a few people had to go he would be high on the list.

He had never got on with Wilson, the woman just had no idea of how to run a project of this magnitude, and did not understand any of the concepts that they were working towards. She was out of her depth.

The conversation went on long into the night and even after going to bed sleep did not come easily.

The next day started with a sharp frost but by the time he was driving down the freeway it was turning into a typical Washington State Spring day. The sun was low on the horizon but very bright as he made his way to the office. As he pulled into his parking space he saw most of the team were already in. Georgina Jones was just getting out of her car and she waited for him.

“Where’s the black armband?”, she asked with an attempt at levity. She knew that she was likely to be first to go as she was the youngest and last to join the team.

“I know”, was his laconic reply. Any attempt of optimism had evaporated on the drive in. He had decided that the project was to be curtailed and he was now totally prepared for the meeting. He decide to go quietly. Ranting and raving would only give Wilson satisfaction and he refused to give her that pleasure.

“What do you think you’ll be reassigned to Georgie?” he asked trying to make conversation.

She gave him a side-long glance. “Come off it. You know as well as I do that I’ll be out of here by the end of the day!”

His attempt at countering this was rapidly cut short. “I know I’ll be the first to go and I cannot say I am particularly upset about it”.

“Oh!” was the only reply he could give and the rest of the short walk to the project office was conducted in silence.

The normal buzz of noise was missing when they arrived. Even Thor, the practical joker of the group, was sitting quietly. The only conversation between Lee Potts and Richard Falder was muted and nobody had bothered turning on their terminals and Personal Computers. Georgie turned quickly to her desk and started to tidy papers and file things away.

David decided she meant what she was saying and was planning her imminent departure.

As 9 o'clock neared the key project team members went through to the meeting room and ranged themselves around the table. David thought ironically that they always seemed to choose the same seats despite whatever order they entered the room in. He always chose the front corner seat, back to the window. There he felt he could survey the others to judge reactions. In addition it gave him ready access to the whiteboard. It was a well-known joke that he couldn't talk unless he was drawing at the same time.

Georgie sat opposite him. As the vision sub-system programmer she should have little problem finding new employment, it was a popular development area in many companies and although relatively short, her experience within Company would hold her in good stead. Lee and Richard sat next to each other at the far end of the table. Their work on the movement system meant that they spent most of their time together, which was quite convenient as they were living with each other. David could not imagine working with Sue all of the time. He enjoyed the change of conversation and focus when he was at home.

That left Dr. Alfred Lanning at the head of the table as the project mastermind and Liz Avalon next to him.

The whole concept had developed from an idea that Dr. Lanning and David had following on an accident in the laboratory, an accident partially caused by David himself. Liz worked on the development of the programmes to be incorporated in the brain. David focussed on

the conversion of the programmes via the generator into pathways within the positronic brain.

His reverie was disturbed as Coleen Wilson entered the room.

“Well, let’s not stand on ceremony”, she barked. David could never think of her as just speaking.

“Yesterday’s presentation was a disaster from start to finish, or should I say from fact to science-fiction.”

This was accompanied with a pointed look at David. With a great deal of effort he restrained himself from replying.

“It will therefore come as no surprise to you that the company is stopping the project with immediate effect.”

Even though they were all expecting it, it still came as a shock and the effect of the words felt like a physical slap in the face.

Lanning rose to leave the room.

“Where are you going?” asked Wilson, almost seeming to be enjoying the role of hatchet-man.

“To clear down my files to the archive. There seems to be little point in keeping pointless research”, he replied with heavy irony.

“Oh, aren’t you going to carry on?”

“Where?”, he retorted. “In my garage on a shoe-string until I reveal a fully working product to an astonished world!” This time the words positively dripped venom.

“I expected a little bit of fight from you.” Wilson almost seemed disappointed by their response. Her next words therefore did not have the effect she was seeking.

“We are selling the whole project lock stock and barrel to another company. They have some crackpot idea that the technology is worth something”

David started at this, “Including the Intellectual Property Rights?” He thought of his stake in the project along with Dr. Lanning’s original ideas.

“Yes, everything. The programs, their sources, all prototypes, all papers and files” She paused dramatically for effect “... and all of you”.

“Yes, you can sell slaves” quipped Georgie. Everyone was beginning to react now. Some with enthusiasm, others with trepidation.

“Do we have to join the new company?” asked Lee. She and Richard had many years service in the company, David thought they would stay if they could.

“No problem”, replied Wilson. “I’m sure we can find a place for some of you.”

Yes thought David, some, but not him. Oh well here goes.

“You can count me in for the new company. I believe in what we have been developing and think it has huge potential.” He said the words to try and puncture Wilson’s arrogance then suddenly realised he believed what he was saying. He looked around the table and got nods of encouragement from most and a thumbs-up signal from Dr. Lanning.

Others rapidly committed themselves leaving only Lee and Richard who wanted to think about it for longer. There did not appear to be any bad feeling about this. If anything it helped re-enforce the team spirit.

The meeting looked as if it was drawing to a close when Alfred Lanning suddenly asked, “By the way - who are our new lords and

masters”.

This brought David to earth with a bump. What would Sue say about the change! He was sure she would agree with his choice but he wished he had the opportunity to ask her.

Wilson glanced at the wall clock. “You will have the chance to meet them in about ten minutes. Wait here and they will join you. I’ll bid you all farewell. You do not have to clear your desks and files as they will be transferred complete to your new site.”

She rose and made as if to leave the room. Turning back briefly she asked Richard and Lee to remain for the briefing then to join her in the project office.

There was a rapid rise to the noise levels as Wilson left. The last minute reprieve had taken them all by surprise and discussion rapidly focused on who would be prepared to take on the project.

“What I don’t understand,” exclaimed Lanning, “is who would be allowed to take over all aspects of the project”.

“After all,” he said with a smile on his face, “There might be some good research work here!”

“Well you can count out Synapsic Logic. They do not have the foresight to invest in this type of technology” said Liz. As an ex-employee of that company she had a low regard of their vision of the future.

David half listened to the discussions going on around him. Who could possibly be taking over the project and what impact would this have on the direction of the development.

The answer came through the door a couple of minutes later and David nearly fell off his seat. There stood two men in typical business suits but one of them was the person who caused the

accident that could have lost him his job, but which actually started the project.

He smiled at David as they moved to the front of the room.

“Good Morning to you all,” said the tall grey haired man who lead the way as he greeted them all with a large smile.

“My name is Lawrence Robertson and my colleague is Andrew Harlan.....”

Harlan smiled but somehow it did not seem to come naturally to him, however he seemed friendly enough.

“..... and we have just finished signing the transfer papers so we'd like to welcome you all as the first employees to US Robot and Mechanical Men Corporation. I trust this is the start of a long a fruitful relationship.”

“The location of the new company is to be Bicentennial Park, which I believe will be acceptable to you all and your terms and conditions will be identical to your current ones.”

He paused to look around the room. “If nobody has any problems I suggest that you supervise the packing of your desks, test and development equipment and anything else you feel you need and we plan to continue this meeting in say, two days time in the new offices.”

The atmosphere in the office after the meeting was very different to that before. The place was absolutely buzzing as they supervised the safe storage of equipment ready for transport.

“Do you know one of them?” Georgie asked David as she was dismantling a laser probe in preparation for putting it into a crate.

“Harlan seemed to recognise you and you certainly jumped when he came in the room.”

“He is part of the reason I’m here and the project exists. He caused the accident that made the first spongy mass that is the positronic brain.”

“How did that happen?”

“Do you mean David hasn’t told you his wonderful and marvelous discovery,” said Thor.

He rapidly ducked as a small scale model of a part of the movement system flew through the air at him.

“He normally tells everyone whether they want to hear or not”.

“Well since you asked ...” began David settling back into his seat with a cup of coffee.

“It all began while I was doing my Ph.D. work in Dr. Lanning’s laboratory. I was doing work on the structure of platinum and its electrical properties and was working on some platinum wastes. Dr. Lanning was bringing around some guests, one of whom was Harlan, and as usual I wasn’t paying attention. I was backing across the room with a beaker of an arsenic compound in solution, bumped into Harlan, and spilled some into the platinum waste. The whole lot frothed up and made a peculiar spongy mass.”

“So your contribution to this was an accident!” said Georgie with a smile on her face.

“No”, replied David with a bigger smile. “My contribution was the intellect and tenacity to follow through and investigate what I’d got!”

“I started to investigate its electrical properties and found that electrical currents flowed, and then just apparently disappeared. That was frustrating to me and I continued to investigate it out of curiosity more than anything else. A few weeks later, I attended a seminar on brain physiology and a question was asked by someone about the short life of electronic flow through the brain ganglia. At

that point I connected the two, changed my thesis title, and the rest as they say is history.”

“Why were you at a brain physiology seminar? That’s not your area of interest is it?”

“No, but my wife Sue worked in medicine before the children came along. She was invited, with partner, to the seminar and as it was free along with a weekend away in a nice part of the state we went. Nothing further came from it. In a way it was strange that Sue was invited as she had not been working for over two years when she got the invite. Mind you she is still in the professional body so presumably that’s how they knew of her, and they did not seem to mind that she was not practicing.”

“Of such tiny matters are momentous actions the result”, said Alfred Lanning in passing, parodying a well know play of the time. “Now get off your butt and get some packing done!”

Work continued apace and the move took place with very few problems. The disruption and time-delays caused by the moving of location was more than compensated for by the new enthusiasm shown by everyone. The development of the positronic brain and the associated systems that would be required to create a usable robot continued in the new offices.

Robertson played little part in the day to day running of the new organisation. He would occasionally be seen in the laboratories having the latest development showed to him by Dr. Lanning. Harlan however, played a more significant role in the new company. He started to work alongside the Richard and Lee on the development of the motor functions in preparation for them leaving the team and returning to Consolidated.

New staff also started working within the project. The most significant for David was the joining of Harlan’s wife No◆◆◆s. She started working on the development of the control programmes for the positronic brain with Liz and immediately proposed some

innovative thoughts to the design. The changes enabled them to reduce the levels of uncertainty that existed in the preparation of each positronic brain. This also reduced the number of brains produced that had to be scrapped.

Richard and Lee stayed with them for two months whilst new people were recruited and their work handed over. They held a farewell party for them and the few others who had decided to remain in the old company.

The highlight of the party was the “hosting” of the party by the first prototype robot of the new company.

This time it was with pride that David unveiled the robot, then nearly fell off the podium laughing. “Who did that?” he asked, instantly turning to Thor.

The positronic brain was sporting a bolt through the base and held an axe in an attached ‘hand’. A visitor badge was pinned to its ‘lapel’ with the name ‘Frankenstein’ neatly printed on it!

“Couldn’t resist it, and I’m sure Isaac Asimov would have appreciated it!” replied Thor.

They put the positronic brain through its paces and its ‘party pieces’. It recited the American Constitution in a voice that was slightly metallic but clearly understandable. Dr. Lanning stood in front of the vision camera and asked the brain who he was.

“You are Dr. Alfred Lanning Ph.D., and the mastermind of this project,” replied the voice synthesis unit.

It seemed strange to hear the voice coming from speakers a couple of metres away from the ‘ears’.

Thor then took his place in front of the unit.

“Who am I?” he asked, in a slightly stilted voice.

“You are Thor Simpson, and you make the coffee” came the surprising reply.

“Revenge is sweet!”, cried David as he raced out of the door with Thor in hot pursuit.

Much merry making took place that evening and it almost seemed that the leavers were beginning to have second thoughts about their decisions.

“How have you managed to make so much progress in such a relatively short period of time?” asked Sue as the party began to wind down.

David was still a little surprised at the change of culture of the organisation. The attendance of partners at this sort of event would have been unheard of in the old company.

“Would you believe your husband is a genius? No, I didn’t think you would.”

“Some of it comes from the change in style of the company and improved investment, but a large amount must be down to Andrew Harlan and his wife No???s. He has brought some new angles to some of our original research and she has totally new ideas related to artificial intelligence.”

“Why have you not heard of him, or her for that matter, in that case. I thought you knew of most of the key players in this industry.”

“That’s a good question,” David half said/half pondered his reply.

“Thinking about it I don’t know anything about him or her and I’m not sure any of the others do....” he tailed off in thought.

The next day in the office started slowly. Some were nursing sore heads and there was some dismantling of the demonstration pieces they had put together for the night.

David found himself working next to Dr. Lanning.

“What do you know about Harlan?” he asked in as casual way as he possibly could.

“In what way? He’s a fair engineer with a good grounding in logic electronics. Anyway why?”

“Just curious. Where did he go to University and thinking about it where is he from? I don’t recognise his accent.”

“Oh, he told me he’s from New England. I forget exactly where but I think his parents were East European so perhaps that explains the peculiar accent. University wise I don’t know. Why are you asking all of the questions? Have you heard something?”

“No, as I say I’m just curious. Where do you want these pieces to be stored?” he quickly changed the subject. He did not want to appear to be looking for problems.

David spoke to the others over the next few days and found nothing of any real value regarding Harlan and No♦♦♦s. As was usual with him this made him more curious and determined to get to the bottom of it. About three weeks after the party he presented the “evidence” he had collected to Sue after the children were in bed and they were sitting quietly after their evening meal.

“Well I’ve investigated all the possible sources of information and here are all the facts I’ve been able to determine.”

Sue smiled to herself. David had switched to ‘Lecture Mode’. She could almost see him marking the points off on a whiteboard.

“He is supposed to come from New England having emigrated there from the old Soviet block with his parents at a very young age. He then appears to have got his qualifications via a number of relatively low key Universities in the Mid-West. He made his money out of publishing and some very astute stock market deals.”

He paused and took a sip of coffee.

“She apparently was brought up in New Zealand and they met through the stock market of all places. She was working for a computer company who were developing artificial intelligence systems for analysing stock movements.”

He reached over and picked up a folder of newspaper items.

“There is very little about them in any of the papers, medias and reference libraries which is quite an achievement in today’s multi-media rich society. The only things I can find relate to events over 10 years ago. No◆◆◆s Harlan has written a few papers on artificial intelligence that have been published.”

“Have you checked the shipping records to see his immigration details”, asked Sue.

She had researched the family tree a few years earlier and had managed to track her family back to when then had entered the country in the early 1900’s from Ireland using such details.

“Yes, Sherlock,” he replied with a smile, “But unfortunately all the records related to immigration from Russia of that period were destroyed in a fire and of course it was before copies were put onto the GlobalNet,” replied David.

“How convenient,” said Sue with some irony in her voice. “This is getting to be more and more of a mystery as time goes on. What about ...”

She was interrupted by the door chime announcing a visitor.

David glanced at the view screen and exclaimed, “The plot thickens! It’s No◆◆◆s Harlan. I wonder what she wants.”

“Well we aren’t going to find out by leaving her on the door step so let’s let her in and find out,” said Sue rising to meet her at the door.

“You’d better hide your research or it will look very strange!”

David quickly tidied up the papers and discs and put them in the bureau while Sue greeted her and made her welcome.

No◆◆◆s entered as David was sitting back down. Sue organised drinks for them all while David exchanged pleasantries regarding the weather.

“Well I cannot believe you’ve only come to talk about the weather”, said Sue coming straight to the point. “What can we do for you?”

David grimaced at Sue and tried to interrupt her. No◆◆◆s smiled and in a relieved fashion said “Oh good. I was wondering how we’d get down to business.”

She sat back and addressed them both.

“Why are you investigating Andrew and me?”

David and Sue sat there for a moment unable to answer. It was not the question that they were expecting and certainly not in such an open way.

David started to stammer out a reply. “Well... you see... it’s like this....”

Sue took control. “You can probably blame me. I asked David about both you and Andrew and that set him thinking about your backgrounds and we started finding information about you.”

She then switched to the defensive, “All of the information we’ve found was in the public domain so saying we’ve been ‘investigating you’ is a bit heavy”

No◆◆◆s replied. “Oh I’ve no worries about that. I’m not aware of any skeletons in cupboards that we need to be embarrassed about.”

She then sat back and smiled, “By the way, why didn’t you ask us about our background. We’d have been pleased to tell you.”

Sue looked at David and laughed, “Investigated all the possible sources of information did you!”

The atmosphere lightened immediately. No◆◆◆s started to tell them about her life in New Zealand and how she had drifted into computers almost by accident. She went on to say about her meeting with Andrew and their previous work. By the end of the evening they both felt as if they’d heard the complete life stories of Andrew and No◆◆◆s Harlan.

As she left No◆◆◆s said they must get together for another evening, this time with Andrew, and this time David and Sue would have to tell them all about their past.

“It’s a deal”, laughed David. “We’ll get the baby sitter sorted out.”

Harlan and No◆◆◆s sat quietly late that evening reviewing the way things had worked out.

“That was very close,” said Harlan. “We must be very careful in future not to allow our pasts to appear to be so mysterious that people get suspicious.”

“I thought that the accident at the laboratory was a very effective way of creating the first platinum sponge for the positronic brain. You could say it nudged the project into life! Mind you, I was beginning to despair that Williams would discard it before he discovered its properties.”

“I didn’t think we had made our pasts mysterious,” retorted No◆◆◆s. “What else could we have done in order to appear normal whilst allowing such rapid development of the new company. I think we were just unlucky with a few comments that set somebody putting two and two together and making five!”

“Just be thankful that they only made five!” laughed Andrew. “With further investigation our pasts may not have stood up to close scrutiny.”

“Anyway I do not think that anyone will connect the seminar that David and his wife were invited to with us. The creation, funding and subsequent disappearance of the consultancy should not be a great surprise to anyone if there were to be an investigation of the group company.”

“We knew that some of the ‘fuzzy spots’ in the picture of the future that you viewed in the ‘Hidden Centuries’ would keep coming back to haunt us. Presumably the episodes that we have experienced recently have been examples of those.”

No◆◆◆s said thoughtfully, “I think it will soon be time for us to disappear into the background. We must not take on high profile in US Robot. History will hopefully remember Robertson, Lanning and whoever follow us, but not us.”

“However we are nearly there. With US Robot and Mechanical Men Corporation we will have the tool to enable Humanity to develop the Hyperatomic Drive and then the settlement of the Galaxy can begin.”

The last Immortal and the Woman from the future sat back contented and raised their glasses in their personal toast.

To the continuing End of Eternity