PREVIEW EDITION

TIN HEADS

WHERE TRANSPORTATION
MERGES WITH COMMUNICATIONS

by Tim Bryce
Palm Harbor, Florida, USA

MBA PRESS

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by Tim Bryce
Palm Harbor, Florida, USA

DEDICATION

To every person who has experienced the
frustration of air travel.
Some hope.

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NEED TO SEARCH FOR SOMETHING SPECIFIC?
Use the Adobe Reader "Find" facility.

ABOUT THE AUTHOR

Tim Bryce

Mr. Bryce is a writer and management consultant with M. Bryce & Associates (MBA), located in the Tampa Bay area of Florida. He has served the Information Systems industy for over 30 years and has traveled extensively providing training and consulting services on a variety of management and technical subjects.

Tim graduated from Ohio University in 1976 with a Bachelor of Science degree in Communications (BSC) from OU's College of Communications, School of Communication Studies (for-merly School of Interpersonal Communications).

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FOREWORD

The Tin Head concept as described herein came to me several years ago after making one too many business trips. Air transportation had transformed itself from being a fun and exciting experience to an expensive and laborious proposition. I don't think anyone relishes the idea of traveling by airplane anymore. You're prodded through long security lines like cattle, strip searched by people who do not speak your language, squeezed into uncomfortable seats, flights are seldom on time, the meals are horrible, and you're nickel/dimed to death by the airlines. Regardless what class you're traveling, passengers are treated like galley slaves. I can hear the sound of the monotonous drum beat now: boom-boom-boom-boom... Best of all, you get to pay exorbitant prices for this privilege.

People no longer enjoy the adventure of travel and consider it a colossal waste of time. They would much rather be at their destination performing their chosen activity, be it business or pleasure.

It occurred to me there has to be a better way for people to meet and discuss business. Teleconferencing is nice, but it lacks the personal touch. People tend to lose interest quickly if you are not physically present in the room with them. Technologists typically believe in exotic solutions which tend to be complicated and impractical to implement. I tend to be more pragmatic; automate as much as is practical to do, but leave the complicated portion to the human being. This is the premise behind today's aerial drones used by the military and deep-sea drones used in marine research, cheaper and more practical solutions for exploration. If we can create drones for the air and sea, why not devise a land based solution for simpler applications, such as to conduct business at remote locations? Frankly, the

Tin Head concept is a viable solution for communications, maybe not in its robust form as described within these pages, but a simpler version could easily be assembled and deployed. Such a device could have a profound effect on our culture socially and economically. It could revolutionize business, reduce our dependency on foreign oil, and greatly improve interpersonal relations.

Not only is it possible for the Tin Head concept to occur, it is highly probable we will see something like this emerge within this decade.

- Tim Bryce

INTRODUCTION

by Greg Stewart

Truth is sometimes stranger than fiction.

Tim Bryce is a man of limitless energy, and with that energy comes a limitless vision. In the body of work collected herein, his "Tin Heads" vision takes shape in a way that seems absurd at first, but as we progress through the pages, absurdity gives way to a reality waiting for us right around the corner.

The truth becomes stranger than the fiction.

Let me take a few steps back. The concept of Tin Heads isn't too far fetched. Anyone with a finger in the material culture has had a chance to see how robots can intersect with our daily lives. Whether it's the friendly companion Robot from "Lost in Space," the Roomba robot vacuum, or the extreme where robots take over mankind as in the "Matrix" trilogy of films. Robots are a part of our collective conscious in some way or another. The idea of a robot companion isn't such a stretch of the imagination, and likely has already intersected with your life in several places today without you even knowing it. Every form of automation employs some degree of robotics to facilitate its process. Robots assemble cars, robots traverse distant planets, and work to avert disasters in the depths of the Gulf. Robots are fast becoming a part of our daily lives, and behind those robots are operators and programmers to command them to do what they want. In short, they go where we want them to go making them our proxy to do what we cannot. So, as the world becomes progressively more complex, why not a robot to navigate by proxy through it?

A robot proxy.

It's a bit of a stretch to imagine one day we will step out from our "reality" into a machine that connects us to a virtual one, but only so virtual as the monitor, controls, and artificial sensors allow us. One part proxy, one part surrogate, all "you" in the flesh, virtually wherever you choose to be transported to (franchise permitting).

Robots, like computers, give us a complex set of tools to do more than ever, even to replace an aspect of our being or to make ourselves virtually anew. It's quite a concept and Tin Heads takes us full circle - out past the realm of the fantastic and back to a present reality of just what this technology can do for us as our proxy. But more so, to look at the ways in which we humanize with it going from a passive user to it becoming an extension of our self, a cocoon of sorts from the external reality that our previous self was either too frail to move around in, too lost in our work to escape from, or too absorbed in our limitations to realize our potential without new technology.

Building from a base of mankind's relationship with computers, the steady escalation of personalized devices and technology can only lead us towards a reality in which these proxies become a reality. Not the pinnacle, but the next step in our use (and abuse) of evolutionary technology. Tin Heads is not just glimpses into how robots make our lives better but how they connect us to the things that matter most, and thereby provides us with a glimpse of our own humanity.

Because it is woven so tightly into the story, the very human complexity that we all have around us, Tin Heads isn't so much about the robot but about the way we make use of it in the telling of our own lives. What evolves in these narratives are the very real human stories, every bit as en-

grossing as the science fiction genre that they come from but with a warm beating human heart at its robotic center.

The beauty of Tim's vision in Tin Heads is the ability to make cold robotics relatable on a human level. As artificial as these machines may seem to be, they offer the ability to extend ourselves as human-beings; a product of vision, and very much a component of our daily lives whether we know it or not. Tin Heads tells the story that we create every day by our very existence only through the cold electronic eye of our proxy, which in the end is every bit as human as the operator.

Truth, stranger than fiction, is still very moving. No matter the means of locomotion, robotic or human, Tim's vision of this imaginary future is a very real peek of what lies ahead - right around the corner of our collective vision.

> \- Greg Stewart
> Los Angeles, California
> June 2010

EPISODE 1

WHAT IS A TIN HEAD?

Derryl Jablonski was working the morning shift on the tenth floor of the new TN Tech Tower in midtown Manhattan, a sophisticated new building being constructed as the new corporate headquarters for TN Industries, the high tech powerhouse who seemed to become a monopoly overnight. Jablonski was the sectional construction foreman who oversaw the work of thirty workers on two floors. Above him, he could see the 17th floor beginning to take shape. His group had just completed the ninth floor and began work on enclosing the tenth.

Jablonski had put in a bad night. He had too much to drink and only slept a few hours before beginning his shift. He had rushed to punch in on time and looked a bit slovenly and wasn't in the best of moods; he didn't smell particularly good either. He had spent fifteen years on such construction projects and even though he was a bit disoriented this morning, his instincts saw him making the rounds checking his troops were working as they were supposed to. A supply of gypsum wallboard had been delivered to the tenth floor overnight and his workers were beginning to separate and cut them into pieces. Scraps were already beginning to pile up and Jablonski came over to make sure they were properly stacked. Leaning against the pile, Jablonski heard his name called out by his boss who was

looking for him. As he twisted his bloated body around to look, his hand lifted a 4' X 3' scrap of wallboard which was suddenly picked up by a gust of wind and took flight out of Jablonski's hand and over the edge of the building. Both Jablonski and his boss hurried to the edge to watch in horror as the wallboard floated downward from the building. Although sidewalk barriers were constructed around the project to protect pedestrians below, the wind pushed the wallboard down and away from the tower and appeared to target an individual walking down the street.

"*Look out below!*" both Jablonski and his boss yelled to warn the passerby, but it was too late as they watched it crash on the victim's head breaking into pieces. From this height, such an object would have surely snapped the neck of anyone, but the pedestrian staggered a bit, then stopped, dusted himself off, and continued on his way. A wave of relief covered Jablonski's face. "*Oh, thank God, it was only a Tin Head.*"

The expression "*Tin Head*" had become a natural part of the vernacular a few years ago after the TN-2020 Personal Drone was introduced. The drone was specifically designed to allow humans to telecommute to just about anywhere on the planet using a robot with human-like features. Its premise was rather simple, a human could stay in one location and could connect to a "Tin Head" in another city for example, whereby he could then walk around and visit without actually leaving home. The unit itself looked a bit like a mannequin with devices embedded in it to enable someone to go beyond just sight and sound, but also included special sensors to assist in smelling, and even a certain amount of touch, although it wasn't perfected yet. Developers also foresaw the development of a taste module. Perhaps the best way to think of a Tin Head is as a "dumb" robot that looks and moves remarkably like a human being.

The TN-2020 was developed by TN Industries of San Jose, California, headed by Terry Noyce, who originally invented the device to help the handicapped overcome physical restrictions. To all outward appearances, the device looked and moved like a human being with the exception of its domed head which resembled a sort of space helmet and housed special transmitters which assembled a hologram of the human subject's face which moved and spoke in real-time. It was quite realistic. Between the helmet and "TN" model number, the name "Tin Head" was born.

For all practical purposes the Tin Head represents an "out of body experience" (which was used in the company's advertising). A person wouldn't purchase a unit, but would rent one instead. To use it, a customer would simply visit one of the many "Tin Head" franchises set up around the country. Working with the staff, you would inform them of your destination and enter a "Home" unit where you would work locally. They would then connect you to a "Remote" unit at your selected destination. When activated, the human in the "Home" unit would only see and hear through the electronic sensors of the "Remote" unit. If the "Home" unit wanted to stand, sit or walk, he could do so easily. It was as if he was actually at the other location.

As mentioned, this technology was originally developed to assist the handicapped who suffered from crippling defects which prohibited them from freely moving about. However, it quickly became apparent to developers the TN-2020 had many other uses, particularly to average consumers who found it necessary to visit other locales, such as business people. Instead of paying for airfare and wasting a lot of time in transit, people could literally be up and running almost immediately at a remote location. Salesmen, consultants, and customer service agents found it a convenient and cost effective approach for visiting customers. For example, a person in Miami could plug into the "Tin

Head" network and conduct a presentation in London in the morning, have lunch with a client in New York, and work with a customer in the afternoon in Seattle. When completed, he could exit the "Home" suit and be home in time for dinner with the family.

Although its use in business is the Tin Head's number one application, it started to catch on with tourists as an inexpensive way to visit foreign destinations. Now, people could experience first hand the beauty of Rome, the Carnival festival in Rio de Janeiro, the ruins of Pompeii, the ancient shogun castles of Kyoto, or wherever. A franchise had even opened on the moon thereby allowing tourists to experience standing on the lunar surface, all from the safety and comfort of their "Home" unit.

Although the TN-2020 is more durable than human skin, it is certainly not indestructible as it would have been cost prohibitive to do so, plus the company didn't want to invent something that could be used for felonious purposes, such as to rob a bank. However, TN Industries developed a line of "Remote" units more resilient to damage for use in military, space, oceanic, and law enforcement purposes.

Since its introduction, the Tin Head had a dramatic impact on the world. First, it greatly relieved transportation costs. Airlines reported a whopping 30% drop in passengers the first year it was introduced. Over time, it greatly reduced attendance in all forms of transportation which, consequently, decreased dependence on fossil fuels. This, of course, meant sharp drops in fuel costs. The tradeoff though was it forced a reduction in transportation workers as there weren't as many pilots, operators, and maintenance people needed.

Law enforcement and military personnel found the Tin Head to be invaluable for entering and disarming life threat-

ening situations, thereby causing a decline in crime and terrorism. So much so, governments found it was possible to work at 50% capacity. Perhaps the most interesting application of the Tin Head was in science where it was used in a variety of exploration capacities, on the land, in the sea, and in the air (including space).

Although a lot of people were put out of work as a result of the Tin Head, it also created many new jobs. The demand for the units was so great, factories worked around the clock to build and deliver them to franchises that sprung up as quickly as gas stations in the 20th century.

After recovering from Jablonski's wallboard, the Tin Head hurried across the street to his next destination. This particular unit was operated by Bruce Abbot who was "Home" in Appleton, Wisconsin. Normally he would personally fly to New York to meet his clients, but winter had been brutal in both Wisconsin and New York, and Abbot thought it would be safer to rent a Tin Head instead. The wallboard incident had startled him, but as an experienced Tin Head user he shook it off and rushed to meet his appointment.

Abbot had been hired by the local VA Hospital to troubleshoot a major project that seemed to have gone awry. The project, which involved millions of federally funded dollars, was intended to totally replace the aging hospital systems. The hospital had plenty of modern computers, but the systems were nothing more than a hodgepodge of programs slapped together by programmers over the years. Not surprising, there was still considerable paperwork involved with admissions, redundant data and work effort, and no consistency in information produced. Consequently, both the medical and administrative staffs didn't trust the systems and instead acted on instincts and their

own procedures. As a result, the hospital routinely oper-ated at a loss and patients were frequently misdiagnosed which resulted in considerably bad press for the hospital, hence the need for the overhaul.

Abbot had spent the last 22 years in the Information Tech-nology field. Although he started out as a programmer, he quickly rose through the ranks due to his ability to ask a lot of questions and grasp the big picture. He started his own consulting firm eight years ago when he realized he could make more money putting out the fires created by others. His reputation was becoming well known in the industry as he cleaned up one systems catastrophe after another. As a person, he was well groomed, articulate in making his points, and genuinely cared about his customers who would inevitably provide him with references for other assignments. He was often asked to be hired permanently by his clients, but Abbot and his family loved Appleton. Besides, he was making too much money as an indepen-dent contractor and the Tin Head system gave him the mobility he needed to move around.

For this particular meeting, Abbot knew he had to project an authoritative image and, as such, ordered an "execu-tive" Tin Head which came dressed in a smart looking busi-ness suit and tie with matching shoes. It cost a little more than the average Tin Head, but Abbot knew he would need an edge today.

Arriving at the hospital, Abbot took the elevator up to the sixth floor of the Administrative wing where he was met by Hank Stimson, the Hospital's Director in charge of the project. Stimson didn't like shaking hands with a Tin Head as he felt it was demeaning, but he did so anyway to form a closer bond with Abbot whom he had met face-to-face for the first time when it became apparent the project was spiraling out of control. Abbot sensed Stimson's discom-

fort and made small talk to set him at ease. Stimson appeared to be nervous and agitated. His nails were bitten badly and his hair was messy. Frankly, he looked like he hadn't been sleeping much.

Before they entered the conference room, Abbot stopped Stimson and assured him, "Now I want you to relax; after you have introduced me, let me do the talking, listen carefully, and take notes."

As the two walked into the room, they were met by ten people, most of whom Abbot knew personally or had heard of professionally. They were a team of hired consultants representing some of the biggest names in the world of programming, accounting, and health care. The hospital had spared no expense to bring together what was considered by many as a "Dream Team" for the project. There was data base expert Sam Oats, Byron Toring who survived the SOA wars years ago, Francine Tuttle representing JCN Computing, Tory Lansing of the giant accounting firm of PDEK, a small handful of well-known industry strategists and gadflies and the man himself, Ed Ambler, super programmer and author of numerous books on computer science.

Stimson walked Abbot around the room introducing him to everybody before the two sat down at the head of the table. Abbot felt this was a strangely eclectic group of people with huge egos and sensed there was some friction between some of the people.

Abbot thanked everyone for coming to the meeting and for their participation. He noted the room was arranged around a massive circular table in the middle with inlaid computers for each person. On the walls were a variety of white boards bearing graphics and notation. Large sheets of paper with additional notes were taped to the walls.

Everything looked incredibly busy. A projector mounted on the ceiling broadcast a large image on the wall towards the front of the room.

"*Friends,*" Abbot began, "The VA's Hospital system was initiated 14 months ago with a preliminary budget of 15 million dollars funded by the taxpayers of this country. It is my understanding that as of today, over ten million dollars has been spent yet nothing has been formally delivered to the hospital. Can anybody here give me an assessment of where we currently stand?"

Ambler rose to the occasion and spoke with a swagger, "I believe I can speak on behalf of the group. I can proudly say quite a lot has been accomplished. When we were contracted for this job, we established three teams of expertise, one to handle time reporting and project accounting, one to handle the data base design, and I personally headed up the programming section. What we have come up with is a rather sophisticated software system that will enable administrators to admit, process, and release patients from start to finish."

Ambler pointed at one of the charts on the wall bearing strange notation and continued, "We have developed a data model of not only the hospital but the average patient as well and embedded all of the pertinent business rules within it, denoting the various afferents, tuples, and efferents. Here on the screen, you'll see some of the hand held devices which employees will carry; each includes scanning and GPS sensors to input and track data which is being maintained on an off-site server for backup/recovery purposes. Actually, the programming on this will be rather slick as it will make active use of cloud computing, something, you may recall, I helped invent. These next diagrams show..."

"Just a second," said Abbot, "Where are the requirements

for the system? Where is the documentation?"

"This is all based on a series of extensive interviews we conducted with the hospital's I.T. staff," explained Ambler.

"No, no, no," said Abbot, "I'm looking for something in writing that defines the precise business problems to be addressed and the information needed to support the actions and decisions of the users."

Ambler became somewhat defensive, "Well, we have taken the stakeholders best interests into consideration, but as I'm sure you know, the users don't really know what they want. They change their minds all the time, which is why we don't have time to document such nonsense. We decided instead to make the software flexible enough to adapt to any situation that may arise."

"Have you reviewed any of this with the hospital's management or staff?" asked Abbot.

"No, we thought this would hold things up. Besides, I'm sure they'll be happy with the finished product," assured Ambler.

Abbot asked, "Do you have any documentation of any kind that reflects the design of the system?"

"Aside from the charts and graphs you see in this room, No. We're programmers, we don't have time to waste on documentation," replied Ambler defiantly.

But Abbot wouldn't let him off the hook, "You mean if, God forbid, something were to happen to you or these charts, there wouldn't be anyone who could carry on with the project? I see," and he scribbled some notes on a legal pad. "Anything else?"

"It has become apparent to us that the budget is much less than what is needed to complete this project," Ambler said matter-of-factly.

"How much more do you think you are going to need?"

"At least another eight million."

"I see," Abbot said and he paused to digest what had been told him. He had heard all of this type of gobbledygook before. It was a smokescreen to avoid accountability and to bilk the company out of more money. "Please be seated."

Regardless of the name Ambler had made for himself, Abbot held him in contempt as just another scatterbrained programmer. Even his dress, speech and mannerisms galled Abbot; very condescending and pseudo-intellectual.

Abbot rose and walked deliberately around the room studying each chart. The camera on his Tin Head recorded the images. After he had circled the room, he reached up and took one of the charts down; he then moved back around the room and took down everything while the others looked perplexed as to what he was doing. He then wiped clean the white boards and turned off the overhead projector. Finally, he took the charts back to his seat and very dramatically tore them in half."

This was too much for Ambler, "Just what in the hell do you think you're doing?" he demanded.

"Ladies and gentlemen," Abbot began, "The party is over. You have wasted enough time and money. Today we go to work. Yes, this is a large project but as far as I'm concerned it is overfunded, not under-funded. Tomorrow we're going to begin by studying the business, specifying requirements, and designing the whole system. Before we

write one line of software code, everything is going to be documented, reviewed and agreed upon by the management of this hospital. Any questions?" Abbot's faced showed no sign of levity.

"This is outrageous!" Ambler shot back, "You can't say that!"

"I just did," growled Abbot, "and Mr. Ambler, your services are no longer required."

Ambler looked shocked. He looked at Stimson and the others for some sign of support but received none. Then, as dignified as possible, he collected his belongings and exited the room slamming the door in the process.

"Anyone else?" Abbot asked. Nobody dared to respond.

"Okay, let's go to work."

Afterwards, Stimson thanked Abbot for taking charge of the project and terminating Ambler as it had become obvious he had resisted any form of discipline, accountability, and organization. Stimson now had confidence someone knew how to manage the project, regardless if he had come in as a Tin Head or in person.

Abbot left to return the Tin Head to the franchise. He had earned his keep today. As he walked the streets of Manhattan, he thought about Ambler's arrogance and chuckled to himself, "I wonder what's it like to be fired by a Tin Head?"

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