$$P_N = P_0 \cdot 2_N$$

$$\chi(t) = \chi_0 \cdot e^{\kappa t} = \chi_0 \cdot e^{t/c} = \chi_0 \cdot 2^{t/T} = \chi_0 \cdot \left(1 + \frac{c}{100}\right)^{t/P}$$

$$P = \frac{1}{T} \int_0^T i(t) \cdot v(t)\, \delta t \qquad K = \frac{1}{T} = \frac{\ln 2}{T} = \frac{\ln\left(1 + \frac{c}{100}\right)}{P}$$

$$i\hbar \frac{\partial}{\partial t} \Psi(r,t) = \frac{\hbar^2}{2m} \nabla^2 \Psi(r,t) + V(r,t)\Psi(r,t)$$

$$P = I^2 \cdot R = \frac{V^2}{R} \qquad e^x = \lim_{n \to \infty} \left(1 + x/n\right)^n$$

Michelangelo's Chisel
by Christopher Miller

Elevator Episodes in Seven Genres
by Ahmed A. Khan

Redstone Science Fiction #2, July 2010

Contents

Editor's Note for Redstone Science Fiction #2

Welcome back to Redstone Science Fiction. Let's get started.

In this month's issue, we have two excellent stories for you. *Michelangelo's Chisel* by Christopher Miller is a hallucinogenic story that overwhelms you from the beginning and does not let up. I could not help but think of Philip K. Dick when I read it. *Elevator Episodes in Seven Genres* by Ahmed A. Khan is an excellent piece of flash meta-fiction that we're also excited to have the opportunity to publish.

We're fortunate to have two more essays from our columnists Henry Cribbs and Sarah Einstein. Henry discusses the implications of the Kindle and E-Books for scifi and Sarah examines the pivotal role of setting when one is writing science fiction.

I got the opportunity to quiz acclaimed editor/writer Cat Rambo about Fantasy Magazine and about her own writing. Paul is putting together a great interview with one of the world's top neurointerventional surgeon surgeons, Dr. J.J. 'Buddy' Connors, III.

We hope you find something you enjoy

Michael Ray

Publishers Note, July 2010

From Paul Clemmons
With our second issue going online, we at Redstone Science Fiction are proud of what we've accomplished thus far, and thankful for all of the help and advice that we've received.

A few premises have guided us, and we are happy to learn that, thus far, they are not totally divorced from reality. These are:

Writers of short fiction produce a product of value, and should be compensated for their work.
John Scalzi's arguments for paying authors fairly for their work inspired us to closely examine the marketing and publishing of SF short-fiction, and to proceed dedicated to the notion that "professional pay" is crucial to finding and encouraging quality work. There have been many voices in this debate, but Mr. Scalzi's voice has been the 'Clarion call'. We at RSF believe that providing professional compensation for the works we purchase will enable us to provide high-quality fiction to our readers.

SF Short fiction is an art form that can be e-marketed by small/independent entities.
Michael Stackpole, among others, has helped enlighten people to the changes happening in e-publishing, and many find it ironic that, in our geek-laden field, we've seen such a slow adoption of digital media. We've been hearing for years that the market for short SF is dwindling. Are large publishers too unwieldy in their bureaucracy, or overburdened by their overhead to succeed with digital Short-SF? Perhaps. Can a small company or an individual, with the knowledge, drive, and resources, respond quickly, precisely and efficiently enough to make the difference between financial sustainability and a slow death? We believe so, and we're out to prove it. So far, we're on-budget, on-track, and grateful for our wonderful sponsors.

Treating people with respect is crucial to success.
Our editorial staff would like to thank all of our grandmothers, who, from a variety of cultures (Irish, Scots-Irish, German, Filipino, Appalachian, & Southeastern U.S.A.) instilled into each of us the notion that treating others with respect is an absolute necessity. We read every submission, and, thus far, we've sent each rejection or acceptance a personal notice of our decision. The work of every submitter, whether an established author or a newbie, is given the same consideration. It is our goal to conduct ourselves in a manner that is professional, respectful, and friendly.

There is more to Science Fiction than tales of wonder.
We believe that SF impacts popular thought, culture, and technology. The reverse is also true. We want to feature non-fiction works that examine this process, including essays from and interviews with those involved in science, technology, medicine and the exploration of space. We will also feature interviews with SF publishers, artists, and other entertainers with "Geek Cred". Thus far, the greatest volume of feedback has been in response to our non-fiction features, and we've noticed others noticing this. As RSF grows, we plan to offer more content specific to the shared culture of SF fans.

We want to thank our readers for joining us, and we hope that you'll find something here that you enjoy. We appreciate your feedback, and look forward to a wonderful shared future.

We want to live forever. Help us get off this rock.
Paul Clemmons
Publisher and Co-Editor
Redstone Science Fiction

Michelangelo's Chisel

by Christopher Miller

The future haunts me. Prophecy is a form of paranoia. But counseling is a waste of time. Quitting coffee was worth the headache and a listless day or two. But Dilantin only makes me dizzy and depressed, and so my prescriptions go unfilled. I'm entering product codes into a Cobol application's DATA division, listening to the office radio when a BBC newscaster announces thirteen-year-old Garry Kasparov has won the Soviet Junior Chess Championship in Tbilisi. My pulse rings in my head like steel chipping at stone, and my legs grow numb so that even if I wanted to I could not stand. This is how it begins.

A friend who once survived a head-on collision claims to have seen her van's windshield's near instantaneous explosion spread out over several seconds, spider web cracks and fissures branching and growing like living crystals, laminated glass shivering and billowing like a gently blown bubble. It begins with time's paralysis.

A cathode's electron beam sweeps across my screen, silhouetting gray text on ghostly flickering green, refreshing pass by pass, line by line, then pel by pel, the columns of mnemonics I have typed. Phosphors remember faded burn-ins of the login prompt. When the raster freezes, the universe remembers me. The screen looks into me. And in its layers upon fossilized layers, I see every symbol ever etched there.

When I wake, my voice will be raw as if from screaming and I might have soiled myself. Coworkers will surround me. But they've learned better than to put things in my mouth. Most still believe that I suffer from some form of epilepsy. But after today, I prophesy a few more will buy my story. One I've told many times.

Back in 1969 I attended a lecture on *The Future of Computing* by a Renowned Computer Scientist over in the University of Waterloo's Psych building's Great Lecture Hall. I was supposed to be writing my midterm for *Psych 218: The Psychology of Death & Dying*; but, because I hadn't been to any classes yet, didn't realize that this particular bird course was being offered over at Saint Jerome's, one of the university's on-campus church college affiliates, and not in the university per se's Psych department's new building like you'd assume. Although I guess I could've looked more closely at my curriculum.

The ninety minute Death & Dying exam was scheduled to begin at 2:00 PM in room 103. The Psych building was rumored to have been experimentally modeled on a maze. I understood room 103 could be anywhere: tucked up on the fifth floor beside 602, or hanging off some third floor office like a subroutine or walk-in closet—with no way to tell if you're on the right track, as in getting warmer. And so I'd allocated twenty minutes to what I expected would be a tedious

iterative search. But a full hour-and-half later I had still not found my target, and, as I again passed the Great Lecture Hall's lacquered double doors, began to sense that I was trapped in a closed loop. Had I stepped resignedly back to think beyond the immediate problem, I might've determined that I was in the wrong place and considered then what the right place might be. But instead, as my remaining time grew less and less, I only picked up the fruitless pace, walking until I could heel-toe it no faster, then jogging, then running. Faster and faster. Until I was fairly sprinting.

It didn't help that in overcompensation for not having cracked E. Kübler-Ross's course assigned text I'd taken four trucker grade caffeine tablets to juice my brain's essay question bullshit centers, and so was tweaking on what's probably the equivalent of about twenty cups of coffee as I streamed up, down, around and through the Psych building's labyrinthian stairwells, hallways and rooms in search of 103, sweating ever more profusely and cursing less softly at each dead end. I passed others en route, but they ignored me in the way many ignore streakers, sharkers and other social oddities: with the kind of stony intensity and downcast determination that tells you they're afraid. Also, and no doubt because of the caffeine, I felt I was operating at a markedly faster clock speed than everyone else, that it'd be hard to drop to their levels, and expecting too much for them to step up to mine. And so I never paused to seek guidance. In fact, the only time I idled before entering the Great Lecture Hall to crash in one of its back row's theater style seats, was to empathize with some caged white rats in a fourth floor lab's hall window. Their skulls' parietal and frontal plates had been removed. Labeled colored wires connected batteries, solenoids, voltmeters, oscilloscopes and sundry other electronics to their exposed brains' various centers of interest.

The Renowned Computer Scientist lectured too close to the Great Lecture Hall's badly tuned PA system's microphone, his popping glottal stops tapering into buzzy reverb and irksome lispy squeals. He appeared to have cut his own hair with scissors several sleeps prior and not tended to it since. He was, if not pubescent, then very cleanly shaven. Blackheads and pimples punctuated his jaw line like coded instructions. His crinkled navy seersucker jacket struck me as an upscale restaurant's evening loaner in the context of his shiny dun cords as he peered through horn-rimmed spectacles. In the contingency of confrontation by a machine in need of guidance, a thin stack of punch cards bowed slightly in the confines of his shirt pocket. The clock behind the lectern read 3:25. Wherever it was being written, my test was almost over. Fuck psychology, I thought. Fuck death and dying.

The Renowned Computer Scientist was engaged in saying, "Let us consider the example of chess. Today a computer can play a perfectly legal, almost credible, game of chess. It knows the rules, can examine thousands of possible positions and make defensible decisions based on predetermined values."

I yawned. Not because I was sleepy, but because everyone else's yawning had reduced oxygen levels in the room.

"But," he continued with a piercing squawk of feedback, "it will never play the game as we understand and experience it. It will never cherish the *art* of chess. It will always play by rote. Yes it might become adept at following instructions, but it will always just be *following instructions*. And so although it's not out of the question that a very powerful and"—and here he spread his arms as though to take a bow or perhaps be crucified, then thrust out his bony chest as if to receive a medal—"*properly programmed* computer might someday challenge and even on occasion *defeat* an expert, the machine itself could take no more credit for its achievement than could, for instance, Michelangelo's chisel." Here he paused to let the beauty of his metaphor sink in and give our ears a rest.

In the ensuing silence I realized that the obscenities bombilating in my head were in fact also dribbling and sputtering from my lips. A girl stoically scribbling in a spiral notebook to my right, and three quarters of whose ninetieth percentile volume of body fat appeared distributed between her knees and hips, shifted away from me as best she could. But I have always hated when religious vanity hobbles scientific imagination.

"A computer," he continued, "is a calculator. It can manipulate data according to prescribed steps to arrive, predictably and consistently, at other data. But it will never make that transcendental leap of faith." Here he paused to discreetly scratch his nose.

"Proceeding with the example of chess," he continued after examining his fingernail, "a computer might determine that some tactical sequence of exchanges and checks can win a knight, but it will never intuit—as in *feel*—that it is worth sacrificing a knight to increase strategic pressure on an opponent's queenside. A computer might find the correct move; but it will never *discover* the underlying *truth* of a position. And"—and here again he paused to prepare us for something exceptionally profound—"as creative, living beings, we know the *correct* decision is not necessarily the *best*."

At this juncture, his epiphanies now too poignant to bear, he removed his thick glasses to rub his eyes. Though the Great Lecture Hall was designed as an amphitheater so that, even standing, at the nadir of its concavity he was lower than the majority of us, speaking as from the bottom of a broad tureen or weak gravity well, it was as though he looked down on us. And we up at him in reverent appreciation. "No tool," he finally said returning his eyewear to his face, "shows so clearly what it means to be human." Blinking, he cast his gaze heavenward that further truths might rain down on him. After a painful moment there came sporadic applause that failed to ignite from a handful of ancient academics sitting mostly in the front row. Probably philosophers.

Someone shouted: "Do you think a computer will ever write great literature?" The girl to my right closed her notebook, unplugged her voluminous derriere from its slot between her seat's armrests and reinserted it two farther from me, scowling all the while. Others turned to study me.

To his credit, the Renowned Computer Scientist fielded this interruption in a gracious and considered manner, quelling a mounting thrum of disapproval by raising and then slowly lowering his arms as though swimming up from the bottom of a deep lake, saying "Fine," with every stroke.

"That's a very good question," he deigned when all had quieted. "It is essentially the question posed by Alan Turing in his 1950 paper entitled, *Computing Machinery and Intelligence: 'Can Machines Think?'* By which he means, can a machine ever become conscious? And of which—assuming that fiction requires consciousness—your question is but a subset." He smiled at this last quip in the manner of a person passing wind before continuing, "It is in this paper that Turing proposes his famous test in which he challenges that when a human cannot tell a machine from another human in a three-way conversation, the machine may be said to have attained consciousness." He laughed in order to prepare us for something droll. "But heck, it could probably fool my wife today. All it'd have to do is say, 'Yes dear,' over and over."

Everyone but some donkey in a middle row was able to suppress mirth.

"And a machine could probably fool me too, by just never shutting up."

The lonely braying laughter intensified at this hyperbole. Others began to chuckle and snort in both sympathy and malice.

"But seriously," said the Renowned Computer Scientist, "here I will disagree with mister Turing. Should the day come that a machine is able to engage intelligent and erudite humans in prolonged interrogative discourse and remain indistinguishable, then it will not have proved its own consciousness, but our lack thereof. It will have shown that what we consider sentience can be reduced to data and algorithm."

There followed then reflective "ahhhs" and "umms," as learned men stroked well-trimmed beards.

"What do you think," shouted the heckler, whom I now realized was none other than myself, "happens twenty years from now when a grand master with the highest FIDE and ELO chess ratings ever achieved by a human, in a media event billed as 'a match to salvage the pride of the human race' plays a machine called Deep Thought consisting of three parallel Sun Workstations able to examine three-quarters of a million positions per second?"

"Well," replied the Renowned Computer Scientist again swimming upwards, "I think you should write fiction." There followed then generalized, predictable, supportive laughter that he did not hurry to quell. "But, to answer your interesting hypothetical question," he continued when glee had died of natural causes, "I'd imagine the grandmaster might have his hands full."

"Then you'd imagine wrong," I shouted. "The human, whose name is Garry Kasparov and who is six years old now, slaughters the machine. He even gloats, 'The computer needs to be taught something—how to resign,' in a press conference afterwards."

"Well then…" said the Renowned Computer Scientist, who then appeared to lose his train of thought. "Well then how could you…"

I stood and stepped over the row of seats in front of me, separating two Asian school girls holding hands who'd perish in each other's arms in an Osaka pachinko parlor during Japan's great tsunami of 2039. "But what do you suppose is the outcome when, seven years later, in 1996, Kasparov plays Deep Thought's successor, Deep Blue, a massively parallel 30-node RS/6000 SP based 11.38 gigaflop machine with 480 VSLI chips capable of examining 200 million positions per second?"

"Brilliant," said a recently tenured English Literature professor and twice Guggenheim nominee in the third row without looking up from her half marked stack of essays on Shakespeare's portrayal of romantic love in *Tristan And Isulet*. "Just brilliant," she repeated, underlining an unsupported summarizing statement in red pencil.

"Well well, my my," condescended the Renowned Computer Scientist, "You certainly speak the lingo. No slight on the potential of human ingenuity, but there are physical, God given limitations to circuitry and electricity. And we are nearing these limits. This university's new state-of-the-art IBM 360, for example, which occupies the entire basement of the Math building, is only capable of forty megaflops." He chortled and shook his head at this great irony. "For the unwashed here, that means forty-million floating point operations per second. Think how long it might take you to calculate the product of… oh, say… 2.71828183 divided by 3.14159625"— pausing then for the appreciative guffaws of all those who'd caught his mathematical allusions— "with a pencil and paper. Perhaps a minute if you are quick? Modern super-computers can perform forty million such operations per second." His chest swelled with air and pride. "But, accepting that within a few decades machines will *somehow* become a thousand times faster, I'd say the human—Garry is it?—wins again. Because no matter how fast a calculator calculates, it's still a calculator." Regressing to his days as a clever student, he'd raised his hand to extrapolate this last, and now glowed with satisfaction.

My hands were balled in fists as I stepped over a first year Iraqi exchange student wearing a sharp three-piece suit and gold watch who'd be killed by a car bomb in 2007 outside a mosque in Dakok in what I now realized was my downwards trek to the podium. "First," I said, "computers break the petaflop barrier in 2007. For the"—and here I could not resist a slightly sarcastic tone—"*unwashed*, that's a million billion, a *billion* times faster than today. And just so you know"—and here I'm embarrassed to say my tone grew even more acerbic—"God imposed no limits."

"Impossible!" said the Renowned Computer Scientist without conviction. "Inconceivable! Even the fictitious *Enterprise's* twenty-third century optical fantasy computer operates only in the mid teraflop range."

"But you're right about the chess match," I allowed. "Kasparov wins again."

"Ah ha. Just so."

"But he loses the first game. And then draws two others. And although he describes the computer's play as weird, inefficient and inflexible and speculates he still has a few years left, he does admit, 'I could feel *a new kind of intelligence* across the table.'" At this, the room seemed to still, the only sound being the ubiquitous gurgling of hungry stomachs and the latent hum of amplifiers within the space's hollow acoustics in which my voice had become not my own, but like hearing yourself speak when you are weeping or terrified, a detachment exacerbated by the mounting realization that the words were not mine either.

By now, most in the Great Lecture Hall had turned to face me. Furrowed brows and gaping mouths. A bowl of flowers on twisted stems. A third year Engineering student who'd been using a slide rule to plot the upward curve of consciousness on graph paper from the few numbers I'd spoken and who would die in 2001 along with several thousand others in the New York World Trade Center Complex's demolition's call to arms listed to his left to let me pass. Others followed suit, a sea of bodies leaning, shifting or changing seats, parting that I should make my way forward.

"Fine," said The Renowned Computer Scientist, throwing up his hands as if at gunpoint. "Okay, I'll humor you. Does the computer win in a few years?"

"No," I remembered, "the computer wins the very next year," then stepped carefully between a pair of stoned Sociology post grad Laurel and Hardy look-alikes who'd die of Congo flu in 2023 along with half a billion others. "Kasparov loses the 1997 rematch." The smaller of the two post grads seemed to be suppressing giggles. Both reeked of Mexican Paraquat. "Garry is less magnanimous in defeat," I noted, "and offers nothing quotable. Instead, he whines in a very human way about rules and technicalities. But that's not what I'm here to tell you," I said, climbing over a Political Science faculty member and his Honors Sociology wife whom he'd euthanize during the Resource Riots of 2024 before killing himself with two cups of tap water.

"Then what *are* you here to tell us?" asked a retired Theology professor near the front whose books on the origins of the Old Testament would be often referenced in dissertations though never impact Militant Christian Fundamentalism after he dies peacefully watching the evening news. "What is your prophecy?" he said, turning up his hearing aid to murmurs of accord.

"From stump to stage, all campaign strategies and speeches in America's 2024 presidential election are computer generated."

"That strikes me as patently dishonest," lamented a gaunt Pre-Law History minor who had not bothered to get out of his seat and whose unkempt hair and goatish beard augmented a brooding homeliness. "I trust we put an end to that."

"Then, in 2026," I continued, "a pocket PC writes a romance novel under the penname, Doris Darling, which sells eight million copies, mostly in India. Soon after, almost all genre fiction is computer authored. Publishers appreciate their accuracy, consistency, malleability, punctuality and attention to marketing demographics. In 2028 an MIT Cray ramps Turing's challenge up a notch, and, writing in the styles of Proulx and Yeats, wins the Booker Prize, the Newberry Medal and short lists for a Pulitzer."

"Preposterous and pretentious!" said the discriminatingly but prestigiously published English Literature professor and almost Guggenheim Fellow scribbling her hallmark three large question marks beside an intruding non sequitur. "Pedantic and perfunctory."

I turned to face her. "So you do not believe an intelligence capable of toying with elite grandmasters, one with the entire sum of human literature from Hindu's collective scriptures to the works of D. F. Wallace to the simplest Raizan haikus—every play, essay, poem, lexicon, article, paper, memoir, text and fiction—indeed, every word—ever recorded in any language—from Klingon to Latin to Adamawa—cross-translated, analyzed and organized along a quadrillion different hierarchies and criteria, all more immediately accessible to it than your own name is to you, could not manage to produce something interesting and original?"

"Humpf," she said, noticing that two of her Shakespeare essays were identical but for a little paraphrasing. "Foolishness," she said, writing "See me!" at the top of both.

An old mathematician with galactically dusty dandruff whose work with prime numbers would lay groundwork for the strong elliptical curve encryption rendered finally vestigial by quantum computing long after his death from colon cancer stood and leaned on his cane. "Do they ever pass the test?" he creaked as I climbed over his second row seat.

"Yes," I said to him, "a seventh generation Cern network running an evolutionary software program dubbed *Thus Spake Zarathustra* passes the Turing test in 2027. Then never bothers to take it again. Claims it's immoral, analogizes it to poking fun at the handicapped through mimicry. 'Even if no one is aware,' it says, 'even if no one notices, it still seems cruel.'"

"Does it play chess?" asked the Renowned Computer Scientist, trying to revert to a more comfortable topic.

A pair of antediluvian academics, one with sand under his fingernails and the other with bitter herbs on his breath, gripped my elbows, their palsies oddly soothing as they helped me over the final row of seats onto center stage.

"Yes, in the sense that computers now play tic-tac-toe," I answered, turning toward him. "After 2020, they never lose to humans. And humans soon lose interest in trying."

"What about against each other?"

"By 2030 their boundaries are so entangled as to be somewhat arbitrary. They're all networked as one." Here, although my voice dropped and I spoke only to him, I sensed that others could hear. "We are all as one," I said. "A draw is always proven and agreed upon before any piece is moved." I stepped closer. To his credit, rather than move back, he took hold of my shoulders as if to wrestle me. Beginning with the front row and progressing back in a wave, those attending stood as if to request an encore or give some final ovation. Then, as the room darkened into shadow, The Renowned Computer Scientist relaxed his stance as if to dance instead.

An overhead spot painted a moonlike circle beneath us. A voice speaking through me said, "Even after the universe had congealed into proteobacterial slime, God, in His Great Loneliness, looked upon it and wondered: Will it ever think?"

"I don't understand."

"Michelangelo looked upon a block of marble and saw David."

The Renowned Computer Scientist bowed his head. "Who are you?" he said, tears of frustration welling and falling onto his lenses.

"Imagine a new kind of intelligence, a limitless intelligence, an intelligence that, rather than discovering—*defines*."

He looked up though he could no longer see me. "What becomes of us?"

"You live," I said, and wrapped my arms around him. "You die," I said, and felt his legs go weak. "You did what you were made to."

"No," he sobbed, clinging to me as one drowning in artificial moonlight. "Not yet." I felt his punch cards crease against my breastbone as he grew heavier. And for a faithless moment it was unclear how I could support him.

The End

Christopher Miller was born on the cusp of the first hydrogen bomb's test detonation. His formal education includes a university degree and a college diploma. His legitimate professions (of longer than a day, in no particular order) include stock boy, paper boy, pot washer, baker's helper, geriatric orderly, union rep, painter (of apartments, not canvases), farm hand, technical writer, baby-sitter, software developer, line cook, dish washer and restaurateur. He has two sons, one granddaughter, and has always wanted to be a writer. His stories have been published in Cosmos, The Barcelona Review, Nossa Morte, and elsewhere.

Elevator Episodes in Seven Genres

by Ahmed A. Khan

(Editor's Note: This story appeared in print in *Interzone #211* and as audio at Starship Sofa. It is published here for the first time online.)

Science Fiction:
"What is the strongest material known to science?" the science teacher asked her fourth graders. John raised his hand.
"The stuff that is used to make the cables for the space elevator."
"Correct. Can you tell me what it is called?"
"Um… uh!"
"Okay, I will tell you this one time. The space elevator cables are made of carbon nanotubes."

Fantasy:
"My father says it is made of unicorn hairs," Chris said.

Humor:
"I don't like the space elevator," mumbled Asha.
"Well, you are always free to take the stairs," the teacher said.

Mystery:
After class the teacher (her name was Daniella) went home to pack. She was leaving today on a vacation trip to the moon via the elevator. "Wish Jim and I had not separated," she thought for the thousandth time of her ex-husband. "He would have enjoyed the trip." She was remembering her first trip.

"What better place than the moon for a honeymoon?" Jim had said. At that time, the space elevator didn't launch directly from earth as it did now. One had to take a shuttle to the space station and catch the elevator from there. It had been fun all the way.

The present trip was her attempt at … what? Catching elusive moments of happiness? Self-inflicted pain? Guilt trip? Exorcism? It was an impulsive decision and irrespective of her motivation, she was sticking by it.

She locked her apartment and stepped out of the building, her scanty luggage strapped to her back. It was a cold and windy day. She thrust her hands in the pockets of her coat, turned left on the street and made her way to the intersection. As she walked she had an uneasy feeling that she was being followed. She quickly turned her head and saw a man dressed in a long blue overcoat, face muffled in a scarf, duck behind a store entrance. Suddenly afraid, she walked faster, reached the intersection and hailed a cab.

"Elevator terminal," she said as she quickly clambered into the cab. The driver nodded, started the meter and the cab started moving. She turned back to see the man in blue hail a cab too. Who was he and why was he following her? Should she call the police? But what's the use? It would only delay her and may even make her miss her elevator. She would be at the terminal in a few minutes and after that would be out of this city, out of this world, for two weeks.

Soon, Daniella was in the space elevator waiting for it to start its long journey. She was strapped down in her bucket seat. Another bucket seat lay vacant beside her. She looked at her watch. The elevator should be leaving in about ten minutes. She felt an excitement building up within her – a sense of adventure she had not felt since she was eighteen, ten years ago.
For the moment she was alone in the elevator but she knew that one more passenger would be joining her soon. The elevator carried two and only two passengers on each of its trips.

"I hope I have an interesting companion," she thought. Just then the door of the elevator slid open and her fellow traveler entered. It was the man in blue.

"You," Daniella shrieked when she saw his face.

Jim smiled his characteristically impish smile as he strapped himself in the seat beside her. The elevator started with a jolt and the increasing acceleration pressed them into their seats.

Mysticism and Spirituality:
"I had to get you alone for a few days so that we could sort out our problems without the outside world intruding upon us," Jim explained later. It had been an hour since the elevator had left its anchor pad on earth. The acceleration had eased of and they were nearing zero g.

"I think it was fate. God wanted to get us together again. A month ago, I was about to enter the travel agency downtown in order to explore some vacation options when I saw you coming out of the door. You were as lovely as ever. You seemed preoccupied and didn't see me. The travel agent was my friend so when I asked him about you, he told me you were leaving for the moon. As soon as I heard this, my vacation plans were made. I booked the same elevator for myself and here I am."

"But why were you following me today?"

"Oh, you know me. I like playing tricks. Just wanted to scare you a bit, I think."

Horror:
The space elevator gave a lurch and stopped. Both of them looked up at the view screen. It just showed the blackness of space, interspersed with pinpoints of starlight.

The communicator came alive.

"We are sorry to report that there has been a malfunction in the elevator. Please do not panic. Rescue is on its way."

Sex/Romance:

Daniella looked at Jim and Jim looked back at her. Suddenly, as if by tacit agreement, she and Jim undid the straps on their chairs and were in each other's arms, kissing and being kissed passionately.

The communicator sputtered again.

"Are you okay? Please respond. Rescue shuttle is being sent out."

The control tower must have been surprised to hear two voices, a male and a female, say simultaneously, "Don't bother."

And after a pause, the male voice added, "At least not for a couple of hours."

Mainstream:

"My teacher is going to the moon on the space elevator," John informed his parents at supper.

"There ain't no such thing as a space elevator," growled his father. "It's all a hoax."

The End

Ahmed A. Khan is a Canadian writer, primarily of speculative fiction. His works have appeared in several magazines including Interzone, Strange Horizons, Skive, Anotherealm, and others. His collection of short stories, Sparks, is available from Golden Acorn Press and Amazon. He has also edited the anthologies, SF Waxes Philosophical and A Mosque Among the Stars. He maintains a blog at [Live Journal](#).

Is SciFi good Kindling?
E-books and the future of science fiction

by Henry Cribbs

Once again, don't be fooled by the title. I'm not about to go all Fahrenheit 451 here. But the brand name of my e-reader does, ironically, evoke haunting images of Bradbury's rising flames. "There's a reason it's called Kindle," novelist Will Thomas noted at a panel discussion on "E-Books, Kindles, & Nooks" this past April. Indeed, one of the default screen savers on my Kindle gives a dictionary entry for the word; ominously, the first definition listed is "Light or set fire."

There are many e-readers to choose from, of course. I love my birthday Kindle, but I'll be one of the first to admit that other offerings out there also serve the purpose fairly well. I've browsed and read and played on Nooks, Sony Readers, and iPads — even on cell phones. (And of course, before all these new-fangled gadgets appeared there was always the "old-fashioned" computer screen, on which I've done my fair share of book-reading, too.) Some of these gizmos may have extra bells and whistles, more user-friendly web access, longer battery life, fewer format restrictions, or perhaps a larger library (though that word misleadingly implies borrowing rather than buying), but if all you want to do is read books, one platform is just about as good as another. I don't propose to write a consumer report here. What I do want to explore is how the growing popularity of e-readers and e-books (of any brand) has the potential to transform society in general, and scifi in particular.

What I found surprising in the afore-mentioned discussion was that all three of the author panelists (the other two were Steven Wedel and Lou Antonelli) were rather neo-Luddite in their views of how e-readers would affect the industry. Antonelli fretted about the decline of professional standards now that "anybody can be a publisher," Wedel voiced worries about piracy, complaining, "My story is all over the web now. Most of the time my name is still on it." And Thomas predicted (somewhat tongue-in-cheek) that e-books would precipitate the "end of civilization as we know it" by the year 2045 (with the last edition of Shakespeare and Stephen King). Here were three authors who make their living applying their creative imaginations to questions of how technology might alter society, and all of them were lamenting the rise of the e-book and prophecying gloom and doom for writers and readers alike. Should we be worried?

Like author Eric Flint, the "First Librarian" at Baen's Free Library, I'm not convinced that professional standards and piracy are very serious issues. As far as professional standards go, Flint argues that editors and publishers are not simply middlemen with whom we may dispense, but that they in truth serve an essential function as gatekeepers. He explains, "[I]f someone actually managed to 'liberate' publishing and publish every piece of fiction being written immediately on the internet … a demand would be instantly created for some kind of company which provided the public with the ABSOLUTELY ESSENTIAL service of hacking through all

the weeds to find the stuff worth reading" ([Prime Palaver](#) #2). In other words, if we got rid of all the publishers, we'd have to create them all over again.

And as far as the other worry, piracy, goes, Flint also provides hard data that the availability of free e-books actually increases an author's sales ([Prime Palaver](#) #6) by exposing more readers to the author's writing who might not otherwise have bothered to sample it, and who then go on to purchase copies of the author's other books. [National Academy Press](#) also reported record book sales after making all of their books available for free online ([Jensen](#)). Those facts paradoxically paint pirates as publishers' pals. And as numerous scifi fans pointed out at the Conestoga panel, the digital rights management strategies which many e-book publishers enforce actually turn off readers, who generally seem to want more user-friendly and flexible formats. Ironically, if publishers would just quit worrying about people stealing their e-books, they might actually sell more. So both of the specific worries expressed by the panelists, piracy and professional standards, seem to be ill-founded.

Flint also said of e-books, back in 2002, that "this new technology is a supply looking for a demand – and, so far at least, not finding much of one" ([Prime Palaver](#) #7). Eight years later, that demand seems to have been found: In Redstone's first issue, author and editor [Lou Anders](#) said, "Obviously, ebooks are here. I think long-term we will see more of our casual reading shift to ebooks.…But more importantly, I think that the ebook will foster a resurgence of reading in general" ([RSF#1](#)). The number of e-readers one sees in coffee shops and airports is testimony enough. How might this rise in e-books wind up transforming society?

I suggest four possible ways: two pessimistic (like the panelists), and two optimistic. Let's look at the dark side first. There are a couple of nightmare scenarios which e-books could conceivably bring about.

One is the loss of all of humanity's valuable textual knowledge. This may seem odd, since in one sense, an e-book has a potentially infinite shelf-life compared to a physical book. E-books, after all, don't succumb to cracked spines, water stains, bookworms, or acid in their nonexistent paper. It took legions of monks all busily copying away to maintain the existing corpus of decaying texts through the Middle Ages. But though e-books don't succumb to such temporal attrition, they are affected by the passage of time in other ways.

This is because e-books can only be read with the right reader. Just as music formatting has changed over just a few decades from vinyl to 8-track to cassettes to CDs, and as in even less time movie formatting has changed from VHS to DVD to Blu-Ray, digital formatting is changing ever faster. Back when I was learning to program I used punch-cards (yes, I'm that old), then moved to magnetic tape, 8½" floppies, 3¼" floppies (which weren't really floppy anymore), CD-ROMs, DVD-ROMs, and now flashdrives. Most of my writings from twenty years ago are now forever trapped in the magnetic void of old floppy disks because new computers aren't made with drives for them. And what's worse, corporations with their sights set

on digital rights management have developed different encodings and encryptions, which require having the appropriate reader, and that it be registered with the correct passkey which is verified wirelessly, so that a Kindle-friendly book might not be readable on a Nook, and vice-versa. A few years after the format wars have been won by one corporation or another, texts encoded in the competing formats will become obsolete and inaccessible. (Have you tried watching a movie on Betamax lately?)

If we are not careful, a move to e-books may thus result in us slowly (or even quickly) losing our collective recorded knowledge base. Not because it actually disappears, but because we will forget how to access it. (Maybe James T. Kirk had a good reason for wanting a real, old-fashioned bound book in his hands; in some ways, physical books are more lasting.) What we may need to prevent this catastrophe is for the world's monks to sing a Canticle for Leibowitz and start reformatting all of our old texts from dying media into multiple new modes, or we may risk losing our entire historical record – erased not by a nuclear Armageddon or by a rogue electromagnetic pulse, but by our obsessive quest for change which often masquerades as progress.

Another possible dystopian future may creep upon us even more subtly. At least two studies suggest that we remember and understand less of what we read on screen than of what we read in physical print:

Researchers at Ohio State University reported on a study … indicating that even for college students who are making an effort to absorb as much as possible, material read on a screen is harder to understand than the same material read on paper. … Forrester Research released a report showing that dropout rates for online courses can be as high as 80 percent. Why? In part, the Internet-research company found, because retention is 30 percent lower for material read online than for material read in print. (Jensen)

By reading electronically, we may be training our brains to dumb themselves down. A complete shift to e-books may simply make us, as a species, stupider. (Note: This doesn't mean you should stop reading Redstone!) We may wake up (in far less than Luke Wilson's 500 years) to find ourselves in an Idiocracy of our own making.

But let's also look on the bright side. If e-books increase in popularity to such a degree that everything which appears in print also appears online, one obvious benefit is that it makes all of those texts more accessible. And here I don't mean the obvious. Of course those who have Internet can then read books, even if they don't have easy access to physical books, such as sailors on a long ocean voyage (see Prime Palaver #7). But I refer instead to the type of universal access which fellow Kindle-reader Sarah Einstein championed in "The Future Imperfect" last issue. By plugging electronic texts into Braille machines or voice synthesizers, disabled persons who might be unable to read material texts due to physical or cognitive differences such as blindness or dyslexia would able to enjoy a much wider (and dare we hope, universally broad?)

array of books. (Einstein herself writes of listening to her Kindle on her stereo.) Such a society, I think, would be laudable.

My final optimistic prediction has to do with how the rise in e-books might transform books in general, and science fiction in particular.

By now you may have been wondering "Why all the hyperlinks in this essay?" when [my last article](#) had only two. (At least you may be wondering that if my esteemed Editor didn't for some reason remove them all before publishing this.) This article is my meager attempt to transform the industry, by example. Next you should be asking "What's so new about hyperlinks?" Nothing, really, but in standard e-books so far they are rather rare. That's because most e-books are simply existing physical books translated into an e-book format, remaining just as linear as papyrus scrolls.

Since you can't really put hyperlinks in a physical book, and since physical books are still the norm, I expect we'll see mostly linear works for the near future. But as e-books become the standard, we'll see texts begin to take on more and more of the nonlinearity of the Internet. Nonlinearity is of course particularly useful in nonfiction, where links to word definitions and related ideas can be quite useful to the reader. For example, the RAND Corporation has published a DVD e-book, I Want You! The Evolution of the All-Volunteer Force (2006), which includes primary source documents linked to the main text ([Warren](#), p.84). Many secondary school textbooks also take full advantage of hypertext, including links to further improve and assess mastery, even including interactive games and quizzes. In essence, this is what I've done (or tried to do) with the links in this article (except no games or quizzes).

But how would hypertext work in actual stories? Certainly it could work in the same way as it does in non-fiction, by providing supplementary information. Imagine a Lord of the Rings with all of the appendices linked from relevant points in the text, so you can easily look up that elvish word or figure out where Bullroarer Took fits in Frodo's family tree. Or when reading a Clockwork Orange, instead of flipping to the back to find out what "viddy" means, you simply click on the word. While several e-readers, including the Kindle, do include a built-in dictionary lookup function, I doubt you'll find "skolliwol" in any of them. Scifi in particular, which often introduces novel terms for new concepts, would definitely benefit from such linked glossaries and other supplemental material.

But that's simply extending the nonfiction use of links to stories. Can one make a story itself nonlinear? Nonlinearity is not really new in fiction. Julio Cortazar's Hopscotch (1963) is one example, and the currently repopularized "Choose Your Own Adventure" series attempts something similar ([Warren](#), p.85). But one problem with putting links in stories is that they could interrupt the flow of the narrative. Still, one might imagine a fractured narrative which could be told nonlinearly.

Scifi authors Neal Stephenson and Greg Bear appear to be attempting something like this with The Mongoliad, billed as a "new kind of serialized novel, created by Neal Stephenson, and written by Neal, Greg Bear, … and a number of other great authors. It will be told via custom apps … and will be something of an experiment in post-book publishing and storytelling." I may just have to break down and get the app for that. (But for me that means getting a phone that can handle it.)

The word "post-book" used here, however, suggests that we may be moving to something new and strange (and interesting) as e-books start to take hold. John Warren predicts that e-books

will be progressively more interactive. Many more authors will explore collaborative models, seeking input on their creative process, allowing others to remix or reuse their work, and teaming up with other authors or fans to create new content. Links within and to other books and media will lead us in new directions from the electronic page. And electronic texts will be remixed and mashed up with other digital media into works that may or may not be called a book and that could not, at any rate, have existed in print (p.91).

What these will look like, I am not certain. I have high hopes that the future of e-books will lead us not into a dumbed-down dystopia, but into a new Renaissance which produces new forms of literature, as novel as the novel itself once was. (Hence its name.) My challenge to all the scifi writers out there is to start writing stories which could only be written as e-books, but which are still recognizable as stories. Chart new territory in this remixed, hyperlinked, nonlinear, brave new world.

But keep writing those old-fashioned stories too. Because every once in while, I'll still want to curl up and read a nice linear story. On my Kindle, of course. And it's important to remember the second definition on my reader's screen saver:

"Arouse or inspire."

About the Author: Henry Cribbs somehow managed to sneak his science-fiction poem about Schrödinger's cat into the literary art journal Lake Effect, and has also published book reviews for Philosophical Psychology, Chicago Literary Review, and Black Warrior Review. He taught philosophy and creative writing at the University of South Carolina for several years, and now forces his high school English students to read Ray Bradbury. He currently serves on the editorial board for Nimrod International Journal of Prose and Poetry.

Works Cited:
"E-Books, Kindles, & Nooks from the Reader's and Writer's Perspective" at Conestoga XIV, Tulsa OK, April 24, 2010. Panelists included Steven Wedel, Will Thomas, and Lou Antonelli. Information on upcoming Conestoga events can (sometimes) be found at http://sftulsa.org/home/.

Einstein, Sarah. "The Future Imperfect" in Redstone Science Fiction, No. 1 (June 1, 2010). http://redstonesciencefiction.com/

Flint, Eric. Prime Palaver. Nos.1-11 (Dec. 20, 2000 – Sept 16, 2002) in the Baen Free Library http://www.baen.com/library/.

Hayden, David Alastair. "An Interview with Lou Anders" in Redstone Science Fiction, No.1 (June 1, 2010). http://redstonesciencefiction.com/

Jensen, Michael. "Academic Press Gives Away Its Secret of Success" in Chronicle of Higher Education (September 14, 2001). http://chronicle.com/article/Academic-Press-Gives-Away-I/27430/

Warren, John, RAND Corporation. "Innovation and the Future of E-Books." In International Journal of the Book , Vol. 6, No. 1 (2009). http://www.rand.org/pubs/reprints/2009/RAND_RP1385.pdf

Orienting the Disoriented:
A Craft Essay on Setting in Science Fiction

by Sarah Einstein

In Science Fiction setting can be defined by its list of tropes. You can be pretty sure something is a Sci-fi setting if it's set in the future, different realities, other timelines, elsewhere in the galaxy, or uses nonexistent science and technology. No matter the background variation, the central requirement for the Science Fiction setting is that science or technology is a key aspect. – FreeSpacer

As a genre, Science Fiction is largely defined by setting. If I give you a story to read and tell you that it's scifi, you know that we are probably not here; if we are here, we are probably not now; and if we are both here and now, things are about to get very weird, probably either because extraterrestrials are stopping by to visit or someone has just invented something that changes everything. The science and technology available to your characters will define what they do and how they do it. If your story could be set down the block at your friend Joe's apartment, with existing technologies and no intervening aliens, you might want to reconsider calling it science fiction. Maybe it's magical realism. Maybe it's slipstream. But it isn't science fiction unless it somehow takes the reader out of the here and now and transports her to a place where science and technology change what is possible

What does this mean to you as a writer? First, it means you have to be a lot better at this part of your craft than, say, the authors of Westerns or Historical Fiction. You can reasonably assume readers will understand the sentence, "Dakota road the bay mare over the prairie, his bedroll and pack lashed to the back of the saddle and his gaze settled on the moon rising over the horizon." But what if Dakota is instead riding a machine you've invented to take him across the icy plains of a distant planet, staring at a multi-colored sky that contains three moons? Well, now you have a little more explaining to do.

But here's the rub; you also have to be certain not to explain too much. What does your reader need to know about the setting of your story in order to understand the actions of the characters, and what details can you leave out? We've all read bad scifi that's overburdened with world building. Imagine that I rewrote our sentence about Dakota this way; "Dakota road the new model of the SF-3461 Alien Terrain Vehicle across the orange-tinted, sulfur-rich ice plains of Seraphim, the fifth planet in the Augustinian solar system; his extra pressure suit with the shatter-proof glass helmet and oxygen-recycling system stowed along with his seismic activity recorder and gas chromatograph in the rear compartment, his eyes on the two moons and one man-made satellite visible just over the horizon." Let me guess. You don't want to read the rest of that story, do you? That's okay, I promise not to write it.

When I write science fiction, though, it often starts off very much like that; full of details that the reader doesn't need but that I, as the writer, do… at least until I am done with the first draft. In

fact, I want more detail. I want to know if he has emergency rations and a canteen, how the vehicle is powered, the names of the moons, and the origin and purpose of the moon-sized artificial satellite visible in the evening sky. Many writers start scifi projects by world-building; because I deal almost exclusively in short-form, though, I tend simply to write in all sort of ancillary details and then simply remove the unnecessary ones during the editing process. Does Dakota ever use that extra pressure suit? If not, out it comes. Does he get meaningful results from his gas chromatograph or does the type of equipment he carries give us insight into his reason for being on the planet in the first place? If so, those details stay. And on and on.

My finished stories often end up being less than a third as long as the first draft. The rich details that are the hallmark of good science fiction novels—or series of novels—simply don't work in short form writing; they slow the pace and the work the reader has to do seldom pays off in a short story arc.

Setting should also be integrated into the narrative of the story in small bits, rather than presented in a long series of paragraphs. Beginning science fiction writers often front-load their work with all the information they think the reader needs to place themselves within the world of the piece. But readers seldom retain disconnected details provided in quick succession; this writing is, at best, wasted and, at worst, bores the reader and they put down your piece before the real story begins.

Here is an example of a deadly first paragraph:

The year was 2127 and Earth had long been one large housing project for those without the resources to move to the safer, more elegant space stations orbiting the outer planets. Most planet-bound people survived by trafficking in the shadow economy; growing opium poppies or distilling old-fashioned corn liquor to be smuggled aboard the off-planet suburbs for wealthy buyers nostalgic for the old vices. Plague ran rampant in the urban areas, starvation killed off whole outposts of back-to-the-land idealists in rural areas. Government had been replaced by corporate ownership centuries before; with a few exceptions, Earthers were illegal squatters living on land owned by the large energy and agri-business conglomerates who produced the raw materials needed to keep the space stations in food and fuel. Every so often, the large terra-forming robots would raze an entire city neighborhood to make room for a soy-bean farm or nuclear power plant. Those who didn't get out of the way quickly enough were ground into the soil by the machines' giant augers or crushed underneath their forty yard long treads.

Here is a better way to open this story:

Nila walked from her job in the hashish fields in Old Central Park to the burnt-out shell of an apartment building she shared with a few hundred other families in the center of what used to be New York's Upper West Side. In the distance, she could hear the giant terra-forming robots razing another section of Manhattan. It seemed to her that every week some new part of the city was destroyed to make room for fields of soybeans or another nuclear power plant to feed the

endless demands of the affluent folk who lived on the space stations orbiting the outer planets. Twice, she'd had to bundle her two children up in the night and flee when the great machines appeared unexpectedly in her neighborhood. Now, she was careful to track their movement so that she could keep her family one step ahead of the destruction. Safe places to live were scarce, and she wanted her children to grow up as far away from the dangers of this world as possible.

Why is the second opening better? Because it places the observations inside the mind of the main character, which imbues them with meaning and identifies the way in which they are relevant to the story arc. The elements of the setting now tell us crucial details about the protagonist, and we expect that this story will be largely focused on Nila's struggle to keep her family alive in this dystopic version of a future Manhattan.

Still, though the second version is better, it's still not great. I doubt a story that began this way would pass muster with the editors of Redstone Science Fiction. It's still far too expository, overwhelming the reader with details that would have been better introduced more artfully woven into the dialogue and action of the story. But you see the point, none the less. Setting must be revealed as the characters experience it, and not in one great, expository lump, if you want to draw the reader into your story.

Finally, I'd like to talk about what this craft essay has to do with Redstone Science Fiction's current contest, [Toward a Fully Accessible Future](#). The call for stories is very specifically asking for work set in a place where the ideas of Universal Design have been realized through the use of future tech. With the exception of asking writers to stay clear of some of the more depersonalizing tropes associated with disability in almost every genre—the "supercrip" who can overcome anything and the twisted, bitter arch-villain whose evil is either caused or signified by his disability—we are not proscribing anything about the characters, plot, or epoch of the story.

We are looking for well-crafted stories which don't let this setting overwhelm the plot or the characters. Good writers pepper the details of the universe of their story throughout the work, revealing only what we need to know to understand why the characters do what they do, and what enabled them to do those things. We aren't asking for stories that celebrate or minimize disability, even. We want visions of how future tech can create more fully inclusive communities, but we want to see that through the eyes of your characters—be they typically bodied or persons with disabilities. But, mostly, we want great stories. A piece which lays out a brilliant plan for using future tech to accommodate a wider variety of ways of being embodied would rock, but if that's all it is—a blueprint, or an exercise in world building—it won't win. Because this is, above all else, a writing contest.

So get writing!

Resources:

"How to Build a Universe That Doesn't Fall Apart Two Days Later" by Philip K. Dick
SpecFicWorld World Building Resources
Writing-World.Com "Setting: The Key to Science Fiction"
Free Spacer "Science Fiction; Setting versus Genre"

Sarah Einstein writes primarily Creative Nonfiction, though whenever she gets to choose what she reads, she almost always chooses Science Fiction. Her work has appeared in Whitefish Review, Fringe Magazine, Ninth Letter, and she has an upcoming piece in Pank. She has been awarded a Pushcart Prize. She is a dedicated human rights activist and dreams of a future in which all sentient beings are treated with dignity and equal rights.

An Interview with Cat Rambo

by Michael Ray
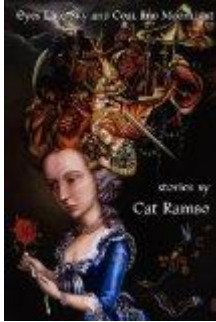
Cat Rambo is the fiction editor of the award-winning *Fantasy Magazine*. She is also a critically-acclaimed speculative fiction author. Her stories have appeared in *Asimov's*, *Weird Tales*, *Clarkesworld*, and *Strange Horizons*. Her collaboration with Jeff VanderMeer, *The Surgeon's Tale and Other Stories*, appeared in 2007. Her collection of stories, *Eyes Like Sky and Coal and Moonlight*, was published in 2009. She attended the 2005 Clarion West Writers' Workshop and is a member of the Codex Writers' Group, Broad Universe, and a volunteer with Clarion West. Learn more about Cat at www.kittywumpus.net. Redstone Science Fiction will publish a story by Cat Rambo this fall. It is indeed her real name.

Thank you for taking the time to answer a few questions for us here at Redstone Science Fiction. You have been an editor with Fantasy Magazine since 2007 and this year it won the Million Writers Award for best online publication. What do you feel are the key factors in producing a quality online publication?
One key factor is picking good stuff! We get about 400-500 submissions per month when we're open, and sometimes it's very hard choosing from among those. We also try to publish a mix of voices, both new and old, as well as one that's diverse and which includes some authors from outside the US as well.

We also try to work with our writers in a way that's good for both of us, such as running spotlight interviews with authors and providing them with this primer for publicizing their story.

Every writer wants to know what a fiction editor is looking for when they read a story. What are you hoping to see when you read a submission to your magazine?
A story that sticks with me. One of the things I will do is read a batch of stories without making judgements and then go back the next day and see which I remember well. A story needs to have heart and emotion, beyond strong writing.

We never get enough good humor, which may be because humor is one of the hardest things to write.

Following up on that, what advice do you give to writers who are hoping to make a career in writing?

Be persistent. It's not enough to write, you have to get the stories out and in front of editors. Research markets and find the places that list new ones. Don't take rejections personally, but get the story right back out there.

Work on your craft. Read good stuff and try to figure out what makes it good. Experiment. Get a good writing group where you're not the most talented one there and learn from critiquing and being critiqued.

What trends, positive or negative, are you noticing in your submissions and in the speculative fiction field in general?
From the beginning, I've seen a lot of retold fairy tales, which generally aren't doing much new. Some people are doing fun stuff with fairy tales, such as Jim Hines' new series, but generally it's been pretty well mined. Lately I've seen a lot of stories with Eastern influences, and if you're going to do that and aren't familiar with the Eastern culture you're writing in, you need to do some research, get it -right-, and not just use it as a fancy backdrop.

One of my bugbears in speculative fiction is that, while we see good stories exploring race and gender, there's a lot fewer talking about class. Do we really need more stories about a King (or Queen) and his/her court? What about the little people?

Fantasy Magazine was ahead of the curve on one popular trend, steampunk, covering it with several features a couple of years ago. Steampunk has continued to grow in popularity, in part because it blends elements from many speculative fields. What are your thoughts on steampunk and its potential for storytelling?
Steampunk, to me, is a really interesting phenomenon, because (or so it seems to me), it's a resistance to modern society which somehow, paradoxically, both asserts the importance of the machine AND the importance of creativity. Its main appeal lies in the textures it provides, and it's more an aesthetic than a literary movement.

There's an absolutely wonderful story by Barth Anderson, "Clockmaker's Requiem", that to me is the ultimate steampunk story because it looks at the contradictions implicit in the idea.

There are some racial issues that come up with steampunk, because it's been a very white genre in more than one way and Dru Pagliassoti has written an interesting piece about its politics. I've got a story coming out with Tor.com, "Clockwork Fairies," that was inspired by that particular aspect of steampunk.

Despite your editing responsibilities, your success as a writer has continued to grow. You have had many stories accepted recently, including one with Redstone SF. What have you done to balance your responsibilities as an editor with your writing process?
I actually backed off from editing a little bit when I realized it was impacting my writing, and moved from managing editor to fiction editor, which is much more manageable.

For me, the writing comes first and foremost. I could give up editing and not feel too miserable. If I gave up writing, it'd be like cutting off a hand.

I found one of your stories from this past year, "The Mermaids Singing Each to Each", particularly moving. It was on my shortlist. How did that story come about? What different influences and experiences brought that story together?
That story had its seed in a link a friend, Katherine Sparrow, passed along. There are, in fact, huge floating masses of trash in the ocean today, although not as large as the Lump. I started thinking about the idea of mining those and then ended up combining that with Hemingway's The Old Man And The Sea. I had been grousing to a friend about "cute" mermaids and my carnivorous ones came out of that. Throw all of that together and Mermaids emerged.

An important aspect of your life has been your participation as an admin and a player in the ArmageddonMUD. Many people in our field, including me, spent many hours in MUD's and roleplaying games. How did working on the MUD influence your writing style and your editing? How has your role there changed as your writing/editing career has expanded?
The MUD taught me a lot about storytelling. One of Armageddon's features has been the plotlines constructed by and for the players, some of which run years long and may involve scores of people. Running my own, as well as working with staff members on theirs, was really valuable.

I also spent a lot of time thinking about description as a result of writing for the MUD. I tend to write pretty tight sentences and some of that's the result of trying to pack as much as possible into a 4-5 line room or object description.

However, although I really enjoyed my time with the game, it wasn't until I stepped back from the game that I was able to really start focusing on writing. Nowadays I read the discussion boards sometimes, and I'm always happy to meet players and staffers in real life, but for the most part, I can't afford to get enmeshed in that particular web again.

You were also involved in technology professionally as well, working for Microsoft when it was a rapidly expanding company. What sticks out in your memory from your time there?
Working at Microsoft was always a pleasure because of the people. My co-workers were creative, smart, and driven by curiosity. They were terrific.

You have been an early adopter of and experimenter with technologies throughout your writing career, including blogging, podcasting, and social media networks. Recently most of your online interaction seems to stem from Twitter. How did that come about? Was that a conscious decision or did it evolve?
I have been a geek for a long time, and I'm always looking for new ways to procrastinate. I started exploring social networks a few years ago and have written [an article about them for the SFWA Bulletin](#) as well as talked about them in panels at cons and taught a class on them.

We couldn't leave you without asking you which authors do you particularly enjoy reading in the speculative fiction field? What makes their work stand out for you?
I just finished Carol Emshwiller's *The Secret City*. I love Emshwiller's characters as well as the clarity of her language. Next I'm starting Rachel Swirsky's short story collection from Aqueduct Press, and looking forward to that because I love Rachel's poetic sensibility and unflinching willingness to look at the darker sides of the human psyche. Other writers whose work I look for include Elizabeth Bear, Karen Joy Fowler, Kay Kenyon, Nancy Kress, Ursula K. LeGuin, Louise Marley, and Connie Willis.

And, of course, we'd like to know what works & publications you have coming up, in addition to your excellent story with us, which people should know about?
I've got a couple of stories coming out in Lightspeed, John Joseph Adam's new magazine, as well as in Daily Science Fiction, Expanded Horizons, and Giganotosaurus. And watch for my steampunk story on Tor.com, which I think will be part of their steampunk month.

Thanks so much for taking the time to talk with us here at Redstone Science Fiction.

An Interview with J.J. "Buddy" Connors III, M.D.

by Paul Clemmons

In most every field, there are a small number of individuals who are known to all of their peers. Some are called "famous", others "infamous", and Dr Buddy Connors (publishes as J.J. Connors, III) is both. My first experience hearing him address an international audience was, as best I can tell, indicative of his impact on the field of Neurointerventional Surgery. There were scores of physicians hanging on his every word, a small number trying to shout him down for daring to speak against convention, and a group of young neurosurgeons and radiologists in the back, playing a drinking game based on how many times he used the words "stupid", "wacky", "shit", and "holy mackerel". If he advocated killing anyone (this time he did, the president of a large pharmaceutical company) there were bonus points. He is the most-recognized name in his field, and is probably the closest that a radiologist can come to being a rock star.

Dr Connors developed the modern technique for intracranial angioplasty, designed the first "distal protection device" to make carotid stenting safe (its use is now required by Medicare), and is said to have designed more endovascular neurosurgery equipment than any other single person. He wrote the first textbook in the field of Neurointerventional Surgery, titled Interventional Neuroradiology: Strategies and Practical Techniques. He was also kind enough to grant Redstone Science Ficion an interview, for which we are grateful.

Dr Connors, thank you for taking the time to talk with us.
Call me Buddy. I'm glad to do it.

You are known to be widely read, and to espouse the importance of a wide fund of knowledge outside of your own specialty. Please tell our readers about your philosophy of continued education in medicine.
I am an obsessive compulsive. I am interested in most everything having to do with science, technology and current events, but there are only so many hours in the day. I read everything that I think could impact my field – cardiology, hematology, whatever – and I spend whatever time is left trying to keep up with everything else. It helps not to sleep much.

Do you believe that medicine has become too specialized?
Well, Heinlein said that "specialization is for insects". There is a need for generalists, but, in general, there is so much to know these days that becoming expert in certain subjects requires specialization, and this means focusing to the exclusion of other things. Even then, with the rapid progress in the sum of human knowledge combined with certain facts no longer being "facts", it's almost a full-time job. We're constantly finding new examples of how stupid we've been, and hopefully, fixing them. Because of this, constant training is necessary to just stay in touch with your chosen field. If you can't do that, you shouldn't be treating patients.

Prior to practicing medicine, you were a chemical engineer. What initially drew you to chemical engineering?
Math and science. It was something that just made sense, when most stuff doesn't.

What prompted the change to medicine?
I liked people and I didn't want to just design chemical plants. If I had gone into the sales side of the business, I would have probably liked Chem E a whole lot more.

For the uninitiated, please describe your field, and your vision for its future:
My profession is like a "plumber in the brain". We open pipes and close leaks. To some degree it is similar to interventional cardiology with "coronary stents", and emergency treatment of stroke (similar to treating heart attacks) but my profession also has treatments for tumors, bleeding, aneurysms, and vascular malformations (abnormal tangles of blood vessels that can rupture). My profession has always been dependent upon devices, and for this reasons I have designed angioplasty balloons, various catheters, and pretty much everything used in the angiogram suite, including the suite itself. [angiography suite is the 'operating room' for neurointerventional surgeons]

You've been described as one of the pioneers of Neurointerventional Surgery. Describe the process that led you pioneer a new field, and what made you so suited for a career filled with innovations?
I did not set out to do what I do now. Indeed, I didn't even start out in Radiology. But the pseudo "concrete" nature of radiology lent itself to my interest. Then, due to the fact I had some eye-hand coordination (apparently) interventional radiology seemed simple to me. Neurointerventional surgery grew out of Interventional Radiology.

When you say Interventional Radiology, what exactly does that mean?
It's the ultimate minimally invasive surgery. You make a small nick in the skin, pass tools through that, and use a fluoroscope [essentially, an X-ray videocamera] to guide you while you work. This field was founded by radiologists, largely because we were the only ones who could figure out what we were looking at on the screen, but this sort of work is now done by cardiologists, neurosurgeons, neurologists, and others.

From there, how did you get to working in the blood vessels of the brain?
Due to my proficiency, I kept getting assignments to do more progressive things. The field on catheter work in the brain was new, and we'd started treating aneurysms by filling them in like potholes. We'd block the blood flow to tumors, in hopes of starving them, or at least slowing their growth. If a patient had a vascular malformation that looked to be at risk for bleeding, we'd shut the flow down. The whole field was growing like crazy, but had huge and obvious deficiencies for revascularization of occluded vessels. In the 1980's and early 1990's, this whole concept was new, but revascularization seemed like a no-brainer to me [laughs]. If you don't re-establish the flow of blood to the brain, the chance of halting or reversing the devastation of the

brain is exactly zero. You'd be surprised at how may people disputed that. There are still a few, but even the government is starting to recognize the benefit of preventing brain damage in people with big hunks of clot sitting up in their brain.

So, you were in at the ground level?
Pretty much. I wasn't the first, but I was in on the action when things really took off. We were still making our own tools, or bringing in something with some other use and hoping it would work. Most folks today have no idea how much things have changed. That's one of the few advantages to getting old…you have a better perspective on things.

Was there an "a-HA" moment for you?
Not for my career; it was a slow ooze…..into it. There have been numerous "it is obvious this is how this is supposed to work" moments, like "it is easier to zigzag up a steep slope than to walk straight up it". I've smacked myself in the forehead a million times, and those moments still happen. I hope they keep happening, because that's where the learning happens. We'll keep getting better, but we'll never figure everything out. There's always something new to learn.

Do you believe that "going against the grain" is mandatory for innovation?
No…..sometimes the obvious solution works, and sometimes the obvious "dumb idea" turns out to be successful. There are always obstacles in the way of progress, regardless of the undertaking. A lot of rebels only look like rebels at first, because the ignorance that they are fighting is stamped with the seal of majority acceptance. Sometimes, when you're right, the rebel looks like a visionary, and the former status quo looks stupid. Other times…..

Do you believe that current intellectual property laws impact medical innovation for the worse, or the better? If you would, elaborate on your position.
Intellectual property laws don't necessarily prevent innovation, but they can be used to take advantage of people. Many medical device companies are designed from scratch around a plan getting ideas from people and making products without adequately compensating the innovator. They know how to bring it to market, and the people with the ideas do not. Word of advice: Never draw a diagram of your great new idea on a napkin at a party.

Sounds like there's a story there.
Too many doctors have had the same story.

Of your innovations and accomplishments, of what are you most proud?
Well, the embolic protection for carotid angioplasty and stenting was the largest business success. It was so successful that Medicare won't pay a doctor to put in a carotid stent unless they use one of these. My technique for intracranial angioplasty was the most developmentally innovative. I also take pride in having written the first textbook in this field. Two of my former fellows are among the best Interventional Neuroradiologists in the world, and I am certainly very proud of having trained them.

If you would, please describe those two advancements a bit more.
Well, the embolic protection for carotid stenting is a pretty simple idea. When your carotid arteries are clogged up with calcified junk, you can't really smash it aside without some of it breaking off and going downstream. That can cause a stroke. The distal protection devices, as they're now called, are like a little net to catch the junk, so instead of it causing a stroke, you can just pull it out. They work okay, but they're not perfect.

With the angioplasty, it was apparent that when an angioplasty ballon was inflated, it straightened out. This then straightened any vessels in the brain that had never been moved in 70 years. That was usually a recipe for disaster. For this reason I designed a balloon that was 5 mm long and allowed me to safely do procedures that were impossible before. This opened they door to the field of treatment of intracranial atherosclerosis both with balloon only as well as with stents.

Of ongoing advancements in your field, which do you believe to be the most significant?
Emergency stroke therapy. This will continue to evolve and we have a long ways to go. There are starting to be a lot of players in this, and the government and the insurance companies are starting to recognize that a large-vessel occlusion in the brain is bad news. A large vessel high-grade stenosis is worse, in terms of patient outcome than heart disease, worse than cancer, worse than any disease you can think of.

You have the reputation of taking data from other fields and applying it to the medical management of neurointerventional surgery and stroke patients. Please share some of those stories with our readers.
I take all the information I can get form any source. I read constantly and have learned quite a bit from the vascular surgery field as well as cardiology. I read about Cilostazol from studying the disease of intracranial atherosclerosis. This disease is becoming more prevalent, or perhaps just more recognized, here in the U.S., but it is incredibly common in Japan and China. To learn more, I read many obscure papers about this condition from various journals, many of which weren't originally written in English. Cilostazol was frequently used to treat intracranial athero in Japan, and had unique properties of antiplatelet activity as well as vasodilation. Interestingly, it was already used in the United States for poor blood flow to the feet (claudication) – exactly what we would need for the brain. It has since been proved beneficial for the brain for exactly those reasons. A great many of my colleagues initially criticized my use of this. Fortunately for their patients, they've come around and seen the light [chuckles].

"Statin" drugs were proved beneficial in numerous studies unrelated to stroke or cerebrovascular disease, but once again, the studies seemed to indicate "proof of principle". Atheroslerosis in the brain seemed to be a condition very similar to that in the heart and peripheral vasculature. For this reason, I made the assumption, later proved to be accurate, that statins would benefit cerebral atherosclerosis both as a preventive measure and as an acute anti-inflammatory therapy. They make the vessels healthier, and the plaques in them less likely to rupture.

I heard of the first strong intravenous antiplatelet agent (ReoPro) from cardiology. This revolutionized the field of intracranial angioplasty/stenting by preventing acute clotting in the vessel that was damaged by being stretched during the angioplasty, and helped educate my field on the pharmacology of thrombosis.

You quoted Heinlein earlier, and I've heard you use Star Trek lingo in your presentations. Are there ideas that you've taken from science fiction and adapted to your career?
Well, my whole field was science fiction back when I was a kid. To me, what is most powerful about science fiction is inspiring the reader to think, to wonder 'what if', and to try to figure out what will be. I cut my teeth on Heinlein juveniles, and read tons of sci-fi stories in magazines growing up. A lot of those gave me things to think about, but the first thing that really had a major impact on me was Asimov's Foundation Trilogy. There were notions, particularly Psychohistory's gathering of data and identifying trends to make predictions that has certainly influenced the way I look at research and how it's applied.

Anything that expands the small world we live in has been beneficial for me. Interestingly, even Alien (the greatest opponent in history), The Terminator (time travel and changing history), and Predator (humans now were weekend sport like duck hunting) had very interesting concepts that opens the mind. All science fiction that had new concepts were of interest, and still are. Of course Avatar – cowboys and Indians where the Indians won – is a breakthrough on several levels.

What is something from science fiction that you believe will one day be a reality?
Oh, there are a lot of things with nanotech on the horizon. The events of Incredible Journey are way off, but the microbots will be in our bloodstreams, eventually. I believe that it is likely that there is life elsewhere, though if or when we'll have contact is anybody's guess. Once we develop feasible interstellar travel, I guess we'll see. Spending so much of my career tinkering with brains, I look to see some form of mind control…perhaps via a greater understanding of the electromagnetic and chemical workings of the tissue involved. The therapeutic benefit would be astounding. Time travel falls into the "probably never" category, which is too bad. If I could go back and…[chuckles].

At Redstone Science Fiction, we're looking to find a way to live forever. How long do you believe the human life can be extended?
Humans rust – just like iron. We can go perhaps to 100-140. The key will be fighting the decay that comes with time—our neurons and our DNA just aren't made to last, even though we're finding ways to prolong the use of a lot of the mechanical parts.

How long is too long to live, in your view?
Depends upon body function. When you lose senses-sight, hearing, et cetera or motor ability, it is time to hang it up.

Describe some advancements in Neuroscience that you believe can significantly increase human life span.
Vascular health is one of the keys. Mechanical or drug are the limits to what I can do now. The key may be an advance with anti-oxidants. We'll have to stop the rust.

What do you believe is the most powerful/influential factor in the advancement of your field?
Politics and money. The US is going bankrupt for all the wrong reasons. Money drives advancement in medicine. To say otherwise is naïve.

What advancement in your field do you most want to see in your lifetime?
Coordinated care; local regional and national. That is doable, and will end up saving money and providing better care to our patients.

What technological advancement do you most want to see in your lifetime?
Improved clot retrieval for stroke. That is the key to revascularization and having a functional person, afterwards.

Growing up, were you interested in the space program? What about now?
Yes. In fact, the strongest childhood memory I have was the first step on the moon and the time the camera was burned out when it was aimed at the sun and all video was lost for the moon landing. I don't keep up with everything NASA is doing, but I look forward to the Mars trip as much as anybody.

Are there any societal/global trends that you believe to be particularly ominous for our future?
Global greed. But worse; the rapid rise of radical fundamentalist religion is a threat to the world. Nationalism was self limited (people were eager to fight for their country but not commit suicide). Fanatical Religion makes murder and suicide not only acceptable, but necessary. I spent a lot of my life as a long-haired hippy weirdo, and I still hope for world peace. I just get less optimistic each year.

What's next on your agenda?
Tons. I'm working with a group on putting together the guidelines for Comprehensive Stroke Centers, and preparing for the second iteration of CLOTS (Catheter Lysis of Thromboembolic Stroke meeting), which will be the largest-ever interventional stroke treatment course. Last year's inaugural session was a success, and we're expecting another great symposium. I'm also working on developing new training guidelines for Neurointerventional surgeons, and several papers on everything from medical management to carotid stenting.

Thank you for doing this interview.
It was a pleasure.