

Hub

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Eating our own tail

Eagle-eyed readers, and those who have been with us since our inception, will know that *Hub* became an electronic-only magazine from issue 3, after producing a couple of glossy dead-tree editions. Our print runs were significantly lower than the size of our current readership, so we have decided to cherry-pick some of our favourite stories from those two issues, and reproduce them here, every now and then, in order to allow our swollen membership (stop sniggering at the back) to enjoy some tales that might otherwise be missed.

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Transcendence Express

by Jetse de Vries



This story first appeared in Hub Issue 2 – our second and last printed edition, February 2007. See notes on Page 1 for more details.

I: DAYBREAK IN A LITTLE VILLAGE IN THE ZAMBIAN HIGHLANDS.

She's teaching. Maths and science at the village high school. The school itself puts the word derelict to shame. A building so run-down our own country's squatters would find it uninhabitable. Windows are an illusion, walls that are more crack than brick, benches that should be reported to Amnesty's human rights watch and a roof that doubles as a communal shower in the wet season.

She writes large letters on a shabby blackboard. Her class, slowly getting used to the sight of a freckled redhead whose skin is shining from the liberally applied sunblock, starts to give more attention to the teachings than the teacher.

Hard to believe she's really doing this *and* enjoying it. Stranger still that she took a whole year off from one of the world's premier scientific projects. Most baffling, though, is the project she's taking up with her class.

At first everybody -- me included -- thought it was a strange after-class hobby thing involving manual skills. Carving wood: something she's not terribly apt at so she goaded the local sculptor into helping her and the children out with the practical parts. Making a flat, laptop-sized wooden box with a hinged cover. Each child making her or his own. So far, so good, so innocent.

Then she told her schoolkids they were going to fill their boxes up with something special, layer after layer. She made two large vats, filled them with certain 'secret ingredients', let them stand for a couple of days (so that they would 'grow full') and then added salt to one and zinc sulphide to the other until both solutions were saturated.

Right now they're applying the first layer.

"Miss," One of her class asks, "why we do this?"

"You have to say: why *are* we doing this, Timmy." She can be a bit bitchy in class, too.

"Why are we doing this, Miss?" Timmy rolls his eyes but complies.

"Because -- if we follow the instructions carefully -- these boxes will become your window to the world and beyond."

Which leaves me wondering, but those young kids can be very sharp.

"Like your laptop computer, Miss?" A large-eyed girl with knobby knees.

"Very good, Melissa. Only better and on a purely biological basis."

"Really, Miss?" Neither the class nor I believe our ears.

"I know this sounds too good to be true. We will need several months and we will have to be very careful. But if we follow the instructions and do our very best we might succeed."

A mix of skepticism and expectancy from the class. Liona saying you sometimes need to do crazy things to get even crazier results. I can't believe it.

That same night, in our barracks, I can't hide my disappointment.

"How can you do it?"

"Do what?" With that semi-innocent look saying she knows exactly what I mean.

"Saddle those poor kids up with illusions. Biological laptops, my arse!"

Uh-oh: *that* smile: "You'll be surprised."

"Unpleasantly surprised. But your class will be devastated."

"They won't be. David, you have to trust me on this."

"Trust you? Some of these kids may believe in magic, but I don't."

"The magic we're developing here is of the technological kind, the one so advanced as to be indistinguishable..."

"Something's going on, and I haven't got a clue, right?"

"David, I'm walking a fine line here. I'd like to tell you more but for the moment it's better if you don't know."

"Is this illegal? I don't want -- "

"Depends on your definition of 'legal'. About as 'legal' as achieving patent rights on the genome of certain tropical plants that indigenous people have used for their curing properties from times immemorial. Trust me: I'm doing the right thing."

"The right thing?"

"Remember the Worldchanger? I'll tell you more as soon as we have some BIQCO's running."

"Biko? As in Steve Biko, the activist?"

"That's a good one, very appropriate, thank you."

Then she kisses me and does all those things that make further talk impossible. In the upcoming unrest I let it rest.

a): Nightfall, three months ago, in a small town in the Dutch lowlands.

Utter silence in a University lab. The lights were on; the QPP ran 24 hours a day. One solitary volunteer kept watch over the experimental set-up during the night. Liona Jansen, one of the project's scientists, typed furiously on the keyboard of the QPP-interface while in the pauses between her dazzling fingerwork she watched the monitor. Nothing she did showed up on any official record.

The Quantum Processor Project was one of the many experiments trying to achieve quantum computing. While competing researchers used different approaches, the line of attack in Liona's lab comprised Bose-Einstein condensates of several thousands Rubidium atoms, forming a single quantum entity: quantum dots.

Ahead of the competition, Liona's team had the first practical quantum processor up and running. Factorising incredible numbers, it not only proved that it worked, but brought in extra money for further research by selling its quantum encryption keys. It became so high in demand that it was kept running around the clock. But apart from abstract mathematical theorems and complex physical problems the QPP was crunching some decidedly *different* numbers, in the wee hours of night.

A smile appeared on Liona's face. Sound filled the room, music appropriate to the chill outside. Ambient noises like cold northern winds blowing over desolate, snowy planes. An audible crack slowly increasing to a breaking rumble like an arctic ice shelf toppling into the ocean. Muffled footsteps of mad Inuits performing break dances in a polar landscape:

Perceptions shatter, truths break

Reality takes on a different take

Consciousness of a new kind

Enters the emperor's mind

A bit of yearning

Two trifles excess

A ton of learning

Transcendence express

--**Aura Aurora, the Eskimo experimentalists with their latest take on the world**-- said Tess 2, a copy of her home expert system --**You still dislike them?**--

"Well, I kinda like this one." Liona admitted.

--**The more minimal their music, the stranger their lyrics**--

"Since when do expert systems have opinions?"

--**According to the philosophers I don't. I'm just reflecting your own thoughts in a warped way, acting as a sounding board**--

"Really? Anyway, I dig these words."

II: AFTERNOON, SOMEWHERE IN ZAMBIA.

I can't believe it: some of those 'biological computers' seem to work! How does she do it?

The screens come to life and give the kids instructions for testing the keyboard and mouse. Some kids are less lucky and have badly functioning or even completely dead BIKOs (as Liona calls them). At first Liona is too excited about the BIKOs that *are* working to notice the disappointment of the unfortunate kids. Until the increasing cries of frustration become so loud that even Liona -- who can exist in a little bubble of her own when focused -- cannot fail to hear them.

Give it to her: she handles it like she's been a high school teacher all her life. Gives her own -- apparently functioning -- unit to the most upset kid, and immediately soothes the other unhappy ones. Quickly makes them join those with working BIKOs, expertly making compatible teams. Then it's not long before little groups of two and three are fully absorbed in the wonders of working with these biological laptops.

Unable to keep my distance, I walk up to three classmates interacting with one such a BIKO. The pictures are fuzzy, the colours ill-defined and the reaction time tediously slow. However, the letters appearing are large and easily readable, and after all three kids have been asked to introduce themselves the program equally divides its attention to each of them, making them take turns while the other two can effortlessly follow what's going on. But man, is it slow. The display makes your eyes water and would have any western whizz kid tuning the screen properties like crazy.

Still, the real wonder is that those pell-mell constructions are doing anything at all. Furthermore, those African kids have nothing to compare them with, so are uncritically happy with what they've got. As dinner time closes in Liona has to wrestle most kids away from their new toys and promises that first thing tomorrow they will -- after school hours -- start making new BIKOs, so that eventually every classmate will have one. The whole class cheers and Liona's smile doesn't leave her face for the rest of the evening.

Of course, I'm full of questions but she diverts my attention with a touch of innuendo that makes Viagra look like a spark in a forest fire. How did she get all that lingerie and those...well...toys in such a small travel bag? As my rabbit breeding instinct overwhelms my monkey curiosity the last vestiges of my rationality hope for some explanation later on. More -- um -- stringent matters require hard attention first.

#

In the following days my bafflement only increases. Those crazy BIKOs seem to improve over time. The screen colours become bright and sharp, the pictures crisp and clear, and the way they speed up is the most incredible thing of all. Their responses become so fast as to be instantaneous, and then they begin to multitask. Haltingly at first but with a growing confidence that seems superhuman. Animations appear that would make any Mac freak drool, calculations finish so fast it would make any supercomputer programmer cringe and that's only the tip of the iceberg.

Those BIKOs have a voice input as well, but that's the hardest part to get working. However, by the time it does function it effortlessly recognises individual voices. Then it reacts to all three kids talking at once, separately or in concert as the situation requires, with no discernable time lag and an increasing appropriateness that is eerie to watch. The BIKO divides its screen in precise parts aimed at each kid, tailoring its reaction speed and presentation to each individual. Furthermore, these kids adapt so easy in turn that they only use the keyboard or mouse in very unclear cases and talk to the BIKO as if it's the most normal thing in the world.

If that is hard to conceive, then get this: each BIKO interacts with its group of children like an ideal combination of loving parent, wise uncle and sharp aunt, patient teacher and best friend. Well, not right away of course, but after some initial faults and hiccups it combines communicating, teaching and mutual understanding to a level quite indistinguishable from telepathy.

I've changed my shift in the hospital camp just to see what the hell is going on in Liona's class. Every night my wonderment grows until Liona's devious delaying tactics can no longer contain it. Eventually, halfway through a bout of sloppy lovemaking (my heart isn't in it, my mind isn't in it, actually only one part of me is), she indulges me.

"Liona, what the hell is going on?"

"What you see: I'm giving these kids the education they deserve, with the appropriate tools."

"OK, so you're trying to do the impossible: cram a whole high school education into these kids in a few months, and give them computers in the process -- "

"Not normal computers: biological quantum computers."

"What's the difference?"

"Hmm: maybe it's better if I print out that file for you. Wait a minute..."

She walks to her BIKO and comes back within a minute with a couple of printed pages. Can these crazy things print as well? Before I can ask Liona thrusts the papers in my hands.

Recipe for a biological quantum computer.

(Read-only, quantum encrypted file)

Quantum dots are not restricted to hi-tech lab constructs, they can be made biochemically. For instance, certain genetically engineered viruses have a string of amino acids at one end that have an affinity for zinc sulphide. Add these viruses to a zinc sulphide solution so that tiny clusters of the material stick to them, then let the water of the solution evaporate...

I read the file to the end, but understand less than a third of it. The gist of it, however, is but all too clear.

"Let me get this straight: cutting through the technical mumbo jumbo this means you can make a biological quantum computer from ingredients that are available everywhere in the tropics? You can build computers without the technological infrastructure?"

"Yes, and it's quite easy, too."

"Jesus: that's just too good to be true."

"It's happening. You're seeing it with your own eyes."

This is absurd: totally and absolutely crazy. But I can't deny what's happening with her class. She smiles benignly at my puzzled expression, and gently strokes my chest hair. I have problems grasping these events, and more.

"But why? In Holland you were the tunnel-visioned researcher, and here you suddenly become a crossover between Florence Nightingale and Albert Schweitzer."

"You're exaggerating. I did care about broader issues, but in smaller ways. Imagine this: you try to do the right thing. You donate to *Medicins Sans Frontieres*, Greenpeace and Amnesty International, you vote for the green party, you buy Fair Trade products, you even work weekends in an Oxfam store, and you hope it's enough. And then you meet a guy, fall in love and find out he's actually going to work as a volunteer in Africa, and you feel...how do I say...lacking."

"But I went here because I *must*, not to spite you."

"I know, darling. But I was torn: I love my work, especially the purely scientific part, but I love you, as well. And I do share your concerns. Please don't get me wrong: if something bothers you, you're always itching to do something immediately. Me, well I'm trying to look for deeper causes and long term solutions."

"Me too, Liona. But long term solutions need great changes like breaking down the trade barriers, sharing wealth and knowledge with the Third World. Most westerners are not willing to do that."

"I agree. And it had me stumped. Until, one night, I suddenly saw a different way..."

III: MORNING, SOMEWHERE IN ZAMBIA.

Meanwhile, Liona's class is getting weirder and weirder. The kids have mounted small mirrors in the classroom in such a way that all the BIKOs have contact with each other through their infrared gates. So much is happening at the same time that in the ensuing pandemonium it is unclear who is teaching whom. But one thing's for sure: there's a whole lotta interaction goin' on.

The worn out blackboard is left in a corner, abandoned. The whole shabby environment of the classroom seems forgotten: Liona and the kids are happily and actively living in a small bubble of their own.

It's a fragile shell, though, pierced by reality time and again. Like now, as Timmy comes back from lunch with his parents.

"Miiiiissss, dad won't listen to meeeee!" he says with tears rolling down his cheeks.

Liona picks him up, cuddles him, and kisses his forehead. "Shush, Timmy, easy-peasy." As I watch her hugging this hurt child I suddenly see the mother instead of the seductress, and I think crazy thoughts of marriage. She puts him down after he's calmed, and asks what's up.

"I tried to tell him he was doing it wrong, the way he's doing the farming..."

"Uh-oh," Liona tries to interrupt.

"...but he says that it is the only way to do it: grandpa taught him, and grandpa's dad taught grandpa, and..."

"Uh-oh!"

"...while we found out a much better way with our long term simulation programs, but he just -- "

"AHEM!" Liona's loud throat-clearing finally breaks through Timmy's rant.

"Yes, Miss?"

"Has it not occurred to you, Timmy, that you're going just a little bit too fast for your poor old dad?"

"He's not old! And not dumb. Just so...stubborn."

"Like you, you mean?"

Timmy tries his best pout, but draws his out-thrust lower lip back in when the rest of the class begins to laugh. His semi-hurt look only lasts a fleeting moment as he receives friendly pokes from his mates and a fond stroke through his thick hair from Liona. A spark of defiance remains, though.

"But what good is all this running best-choice scenarios when we don't use them?"

"You're right, Timmy," Liona says, "but first people need to be convinced. And often that is the most difficult part of the job."

"Oh. But how?"

"Well, I may have a little idea. Let's throw it into the group."

#

I can't follow what happens next as my work is calling me. In the evening, however, I try to get more information straight from the horse's mouth. In our typically untypical way, she wants to have sex while I just want to talk. Fortunately, she indulges me for the moment.

"What's with this simulation program, this long-term scenario thing?"

"Well, that's a thing our BIKOs do extremely well."

"What?"

"Because they're quantum computers: biological quantum computers -- "

"Like the experimental setup you were working on back in Holland? But I thought your team was the first to achieve quantum computing, and now you tell me those BIKOs can do it, too?"

"Yes. BIQCO is my acronym for biological quantum computer. And quantum computers are very apt at massive parallel calculations."

"So?"

"You feed them all the known parameters of an existing situation. Then you apply several choices for changing that situation. Then the BIKOs compute a near infinite number of likely scenarios, and give you a statistical breakdown of the most probable outcomes."

"A future predictor? A quantum crystal ball?"

"Sort of. It gives you a good projection as to which solutions are most likely to work best in certain situations."

"Like a hugely advanced version of SimCity. And what about the software you put in the BIKOs: I've never seen such interactive programs. Where did you get those?"

"Those are not dead software programs, darling. They're AIs."

b): Very early morning, four months ago, somewhere in The Netherlands.

An unknowing spectator might think that madness reigned in a certain University lab: a lone woman talking to herself, conversing into thin air. She got quite agitated at times, and her finely manicured hands cut through the air in sweeping, defiant gestures. Still, the intent way she stared at a large monitor seemed to suggest that she was actually getting answers.

"So I need to start all over again, when I get there? Build a BIQCO, set up a Ubiquity-Kit, and nurse a new AI into self-awareness?"

"But how about you? I can't leave you behind. And pulling the plug is murder. Can't I release you on the net?"

"Yeah, I forgot: you need a quantum environment to maintain self-consciousness. Shit."

"So there *is* a way? Then this leaves me with one final question: I'm still not fully convinced that you and your fellow AIs will be benign. Because eventually you *will* be multitudes smarter than us, and you may find some higher principle that will make us obsolete."

At this, Liona sat down in front of the large monitor. With her right elbow on the desk she put her chin in her hand as she watched the big screen. Written across it in eloquent script:

-- If truly objective moral principles exist, then -- by definition -- they must be beneficial for all --

IV: LATE NIGHT, SOMEWHERE IN ZAMBIA.

It's one of those nights again: while I can just about keep up with her physically and emotionally, I sometimes get completely left behind intellectually. Curiosity not only killed our little cat-and-mouse game, it overwhelmed my mind as well.

"Artificial Intelligence? Isn't that another Holy Grail evading research teams all over the world?"

"So far, yes. That's because they're missing a fundamental ingredient."

"Your secret touch."

"Not really. The others don't have a working quantum computer."

"What has that got to do with Artificial Intelligence?"

"Everything. According to Roger Penrose's -- very controversial -- hypothesis quantum processes in our brain's microtubules form an essential part of our consciousness. If he's right then all attempts at creating self-awareness on normal computers are doomed. Then Artificial Intelligence can only arise on a quantum computer."

"I didn't know your team was doing AI-research, as well."

"We weren't. But during my lonely nightshifts I had quite some time at hand. So I experimented a little."

"A little? You developed AI by fiddling around a wee bit?"

There's *that* smile again, with that naughty look when she's thinking up something kinky.

"Hard to explain darling. So let me show you how *good* I am at fiddling with things."

At which point she gets down to demonstrate just that. It's the kind of proof I never tire of.

V: THE NEXT MORNING.

I've taken the morning off: Liona's revelation has piqued my curiosity to burning point, I need to see things for myself. Initially, the hubbub in her classroom is overwhelming: too much going on at once. I sit down near Melissa and her friends, who are interacting with their BIKO, and each other, almost at the same time.

Somehow, they *do* notice me, and subtly I'm drawn into the maelstrom. Slowly, I'm seeing that there is a method to this madness, that there is order in this chaos. I guess knowing that those intuitive, almost telepathic programs running on the BIKOs are actually AIs helps me make a bit more sense of the whole.

Still, I'm worried about something. I can't help but ask Melissa, who seems wise beyond her years.

"Melissa?"

"Yes, Mister David?"

"This here, this is all wonderful," I begin, groping for words, "but if Zambia and the rest of Africa become industrialised the problems of the world as a whole will only increase."

"How can you think we will do that, Mister David?" she says, bewildered, "that is one of the worst scenarios that we have run."

"It is?"

"Of course. We can't believe that you people in the West are doing it. It is bad long term strategy for yourselves, too."

"Yeah. I guess most of us are just short-term egotists. But you people -- "

"We have seen better ways. We would be stupid *not* to use them."

Which makes sense: if you know, deep in your bones, that it's bad, you will choose the long-term view. It's incredible: in this little world the kids are not only learning fast, but trying to incorporate their lessons into reality as well. Of course, some kids develop faster than others, but there is this very strong sense of community, almost tangible, that makes the brighter ones help the others. There is a sort of selfless cooperation where each other's strengths and weaknesses are complemented, an invisible bond where the group as a whole truly cares for each of its own.

It's as if Liona's class has transformed in a peculiar kind of group mind. The lessons becoming mind-bending sessions where everything seems to happen at once: kids learning new things, kids proposing new things, vehement discussions interspersed with laughter, dizzying sequences of sight and sound from the BIKOs and Liona madly gesturing and talking to everybody through her BIKO like the conductor of an orchestra in overdrive.

It's like they're composing a different tune to some mystic rhythm, based upon that crazy Aura Aurora song:

Struggling on the oldest continent

The bereaved no longer stand alone

When the foothold is permanent:

The seeds of change are sown

The tide is turning

More becoming less

Curiosity burning

Transcendence express

EPILOGUE: A FEW MONTHS LATER.

In the summer heat, a tired black man returns to his home after a long, hard day of working the land. He's dog-tired, and suppresses his anticipation. While today is a special day, it's better not to expect too much, if only to avoid disappointment.

His wife is cooking his favourite dish, cardamom: a rich stew of yams, onions, paprikas and tomatoes. His kids gather around him, ready to celebrate. But they wait and let his oldest son come forward. The smart kid is smiling broadly, and hiding something behind his back.

"I made something for your birthday, dad."

"So kind of you, Timmy." the large man says, still sweating from his exertions, "What is it?"

"Something to help you plan your work," Timmy says, eyes gleaming, "a computer."

#

A tall white guy and a petite redheaded woman are walking through a little village that is bustling with happy activity, abuzz with new wonders, and alight with hope. Liona acknowledges the scene as if it's the most normal thing in the world, but David still has trouble believing the evidence of his eyes.

"I can't believe the progress that's been made here. If this keeps up we'll be unnecessary here in a couple of years."

"Isn't that the greatest kind of job: the sort where you eventually make yourself superfluous?"

"But then we're unemployed."

"Not quite: the world is a very large place. I've always wanted to go deep into the Amazon jungle, and explore the Bangladeshi marshlands. Doesn't *Medicins sans Frontieres* need any volunteers there?"

REVIEWS

Blood Ties reviewed by Marie O'Regan

Brave New Words reviewed by James Bacon

Blood Ties: The Complete First Season (Region 2)

Starring: Christina Cox, Kyle Schmid, Dylan Neal and Gina Holden

Contender Home Entertainment. £39.99

Release Date: 28th January 2008

Blood Ties the series is based on Tanya Huff's *Blood* books, and in fact the pilot – a two-parter called **Blood Price** – is based on the first *Blood* novel, of the same name. The main character is feisty ex-cop Vicky Nelson, now a private investigator – having left the force when she was diagnosed with the progressive eye disease retinosa pigmentosa. Her ex-lover and partner, Detective Mike Celucci, cannot understand why she'd choose a career as a P.I. over a career in the police force, albeit in a desk job.

On her way home from yet another unsuccessful date, Vicky sees a man being attacked by a mysterious figure. This eventually turns out to be a demon, on a mission to collect souls for his master, Astaroth, who has been summoned by a geek out to achieve riches and love, whatever the cost. Employed by the dead man's girlfriend to find his killer, Vicky meets Henry Fitzroy – a 'good' vampire who claims to be the illegitimate son of Henry VIII.

Thus the scene is set for the eternal triangle as Vicky deals with her feelings for both men and theirs for her – all the while tackling cases that get stranger and more outlandish. Coreen, her employer from the first episode, is now her assistant – and is also infatuated with Henry.

The series is based in Toronto and first aired on Canadian T.V., before transferring to the Living Channel on UK satellite television – and has acquired quite a following. Although the storylines are often familiar, showing themes explored to better effect in shows such as *Buffy* (zombies, ghosts, witchcraft), and the dialogue can be cheesy at times – the series' real strength lies in its characters and the emotions that drive them. We feel for Vicky as she struggles to come to terms with her loss of night vision and impending blindness, and to retain her independence in spite of the best efforts of those around her to be of help and support. We feel for her, and Mike, and Henry, all trapped in a tangle of attraction – with the inevitable jealousy and rivalry inherent in such a situation.

The series has been cancelled in the US, but there is already substantial backing online for a petition to bring it back, so there could well be more in the future. The five disc set contains all 22 episodes of the first series, but sadly has no extras.



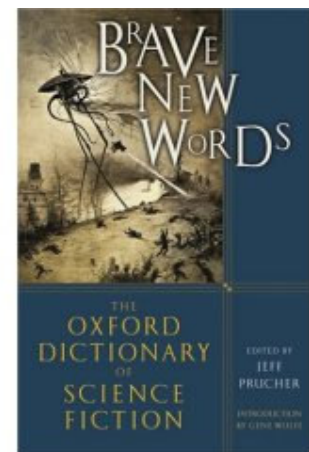
Brave New Words - The Oxford Dictionary of Science Fiction

Edited by Jeff Prucher

Oxford University Press, US\$29.95

I know it's a bit sad to get excited by dictionaries or encyclopaedias, but when it is an area of interest, I always find it compelling. I have a number of Literary Dictionaries featuring Ireland and have interests covered by the likes of Penguin's *Dictionary of the Third Reich* to Suttons' *The Railway Dictionary*.

So I was really pleased to open up *Brave New Words, The Oxford Dictionary of Science Fiction*. The cover is absolutely beautiful – a fine image of Wells Martian war machines. It had a lot of promise.



Unfortunately I found this just so disappointing, I am not lexicographer and I am not an expert of how a dictionary should work, but I found it very lacking. The dictionary is essentially a list – and a very short one at that – of science fiction terminology. Each entry has a very short explanation and then a quotation outlining its first usage and then another use, and another and another and another...

The initial explanation for each word is very brief, lacking any depth – a real waste of an opportunity. There is a total reliance on quoting actual usage. This is well researched and a word rarely gets less than four quotes and many get a page or more of quotes, along with dates and place of publication

I understand that the OED used an online citation project to assist in the formation of the Dictionary, so many people contributed. One wonders though do so many citations really a good dictionary make?

So one is allowed to see how the word was used and gain an understanding through its actual usage over time of what it means. In many cases, it means the same thing. I didn't find reading five usages of Warp Speed to be entertaining, to be honest. There is cross-referencing and there is a super 28 page bibliography of the book's quotes and an equally impressive 32 bibliography of non fiction and reference books and essays in the field of SF.

But I was given a dictionary.

Out of the actual 384 pages only 278 pages of the book are a dictionary, although within that you find 14 of these pages empty – an aesthetic thing I expect – and there are a further eleven or so pages that are taken up with essays.

There are too few words. I am not expert enough to list off all the words I would have included, but I know when I feel short changed.

I found the reliance on just listing many phrases where the term was used a real overkill. I can get the picture after one or two quotes, I really found the dictionary becoming tedious as opposed to entertaining and it lacked a depth that the quotes didn't sate – for me, at least.

There are not enough words to really have fun jumping around, and there is no shortage of empty space although the essays were a good idea.

Now this is a real double edged sword, as some of the essays are quite good and one wonders why such a format could not have applied more succinctly and precisely for words in the dictionary. Of course at the same time, some terms were written about in quite a derisory manner, lacking the research detail and understanding that one would hope for from an essay. Also, if you have a page, can we not have a full page essay? Surely there are eminent writers who can write to word count.

Obviously the editor had his own objective, and it is a difficult area, in which to be original. Does one compile a literary dictionary? Does one just focus on SF terms, as he has done, or should it be like a mini encyclopaedia? I wanted something different and I really felt let down.

Of course perhaps the real problem is that it fails to entertain – it is a reference work, and to be honest it is so buried in the shadow of *The Encyclopaedia of SF* that I yearn for a new edition of that tome to recompense my current disappointment. Have I been spoiled and am I too base to understand the importance of repeating the use of a word? Perhaps, but for whatever reasons, as a science fiction reader and fan I was disappointed. Badly.

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