Creation and Discovery – A Science Fiction Story

To: Stew@ARTLIFE (Dr. J Stew)
From: LR@ACQUISITIONS
Date: Wed. Dec. 28
Subject: Pray I - supply date
Hi Jack,
I just received notification that your new Pray parallel-super will be delivered next Monday (Happy New Year).
Hope the electricity and cooling is already ready (with the price of this baby, management will want you to get it functioning FAST).

Remember to fill out and sign the one year service contract and to return to me internal form 420 YELLOW copy ASAP (keep the pink copy).

See you as usual at the tuesday chess game. Maybe next week you'll be able to bring an artificial creature with you - then maybe you'll have a chance of winning :-)
Larry

To: LR@ACQUISITIONS
From: Stew@ARTLIFE (Dr. J Stew)
Date: Thurs. Dec 29
Subject: Re: Pray I - supply date
> Remember to fill out and sign the one year service contract and to
> return to me internal form 420 YELLOW copy ASAP (keep the pink copy).

OK Larry I got the forms, but what do I do with the GREEN copy? just kidding :-<>
Parsec is promising the next generation machine within six months, so keep your eyes open for the preliminary announcement. Since I'll be busy preparing the closed room for the project, Chet is going to fill in for me at the game this evening, and he's about as far from human as you can get.
JS

To: Sally@BIOMED (Sally Moach MD)
From: Stew@ARTLIFE (Dr. J Stew)
Date: Thurs. Dec 29
Subject: Status Check
Hi Sally,
As you know the long awaited super-parallel computer is arriving soon, and according to our calculations we should be able to run at least four (4!) full simulations in real time. How is the statistical synapse recovery algorithm progressing? Joe promises the new version of the individual neuron separator by the end of the week, which means that we will have a new database by Sunday (assuming we put in some weekend time). I'd like you to perform your next major run on this new database. The subjects will be myself, Joe, Chet, and I suggest you as well. (You're not still scared of the head-set with the fat cable coming out of it – are you?) I don't want posterity to ask why no women were included in the first full scale simulation of human brain operation. What do you say ?
JS

To: Stew@ARTLIFE (Dr. J Stew)
From: Joe@BIOENG (Joe Frost)
Date: Thurs. Dec 29
Subject: Status and problems
OK Jack, after our telephone call I rechecked the wiring, and I guess you were right about the mixup. I then put the hat back on and sat on-line (thinking as little as possible) for about ten seconds. After running the neuron separating routines, I averaged the individual neuron states with 5 millisec windows. I got a few good full files out of this, and I saved them in our common directory in order for Sally to begin working on them. Once Sally's synapse file is ready as well, we'll be able to input both to the simulator (version 0.95). Only after debugging the entire process with my files does it make sense for you and Sally to sit for neuron acquisition sessions.
The problem with getting 1.0 up and running is mainly with the drivers for the mike and speaker. This seems to be a lot harder than I thought.
I'm really wasting a lot of time on this – any ideas?
Only after finishing the drivers will I have time to get back to V2.0.
Joe

To: Joe@BIOENG (Joe Frost)
From: Stew@ARTLIFE (Dr. J Stew)
Date: Fri. Dec 30
Subject: Re: Status and problems
> I'm really wasting a lot of time on this – any ideas?
Yeah, I've got an idea. Forget about the mike and speakers altogether, and let ARTLIF-ERs communicate with us via email. :->
Just get back ASAP to the V2.0 routines, as next week the computer is arriving. I think that you and Ken are right in allowing no death and no reproduction right now, I really can't figure out how to cross the synaptic values in any intelligent way.
See you next year.
JS

To: Stew@ARTLIFE (Dr. J Stew)
From: sysadm@ARTLIFE
Date: Sun. Jan 1
Subject: Snags
Hi Doc Stew
Having a few problems setting up the firewall between the local cloud and the Matrix. I still can't figure why you care if outsiders could connect to our cloud, but I'm working on it. It should be ready before the new machine comes (Tuesday). It better be. After that I have no time (assuming that installation of the new machine comes first).
Chet

To; ARTLIFElist
From: Stew@ARTLIFE (Dr. J Stew)
Date: Fri. Jan 20
Subject: Status report
Congrats to all on a fine job! As of this morning we have transferred four complete brain states (synaptic efficacies and initial states) to the Pray I and started them running in real time.
As predicted the ARTLIFE tasks started thinking immediately, although it took a few hours before we managed to fix a few interface bugs and make contact with them. For the mean time we will communicate with the ARTLIFERs via typing on a console and reading text replies from them, although at some later date we may return to the original plan of speech communication.
We already see signs of separate development, which is somewhat sooner than expected; but I guess we really didn't take into account the shock of being put into a dark silent box.
Any of you who have yet to talk to them, and wish to, are invited to do so on-line, preferably during the late hours (we don't yet know whether they will need sleep periods) when load is lighter.
PS. By the way we have already placed an order for a Pray II, although Parsec will probably not make the projected date.
JS

To: Stew@ARTLIFE (Dr. J Stew)
From: Joe@BIOENG (Joe Frost)
Date: Thurs. Mar 1
Handle: Confidential
Subject: New speedup idea
Ken and I have been thinking about how we can speed things up even before the Pray II arrives, and we've come around again to your idea. If I understand you correctly, you claim that we really don't need the entire wetware simulation at all, rather a software equivalent running the same master program at the "thought level" would suffice.
What exactly is the "thought level"? Isn't this going back to the AI approach which we are fighting?
I can't see how can we get the cognitive abilities of our present ARTLIFE tasks without the simulation of the underlying neural hardware. Can you help me along – how does one start? Joe

To: Joe@BIOENG (Joe Frost)
From: Stew@ARTLIFE (Dr. J Stew)
Date: Thurs Mar. 1
Subject: Re: New speedup idea
No, I'm not advocating going back to a symbolic approach, or even trying to figure out how cognition works. I am just claiming that the same thought processes may be carried out on different hardware. You certainly can't argue that after talking with yourself running in silicon!
Now, the question is how can we move even further from the neuronal hardware. I don't know what the "thought level" is either, but I think it doesn't matter. You can let create concepts in such a level using clustering. The hard part is how to map the proper behavior onto this level. This is where my idea comes in. We monitor the ARTLIFERs every thought, and thus can construct a large training set.
I'll give you an example. Let's say I need a lot of money and decide to write a fake Shakespearean play, and sell it as a priceless newly discovered original. The experts would of course do extensive testing to see that the use of language is identical to that of Shakespeare. So how should I proceed?
Well, after obtaining a dictionary of Shakespearean English, what I would do is to train an automaton, based on some sufficiently high order Markov model, to correctly predict sentence completions. To do this I present a large number of sentence beginnings, and award the automaton if it completes the sentence as Shakespeare did, but penalize it otherwise. After that succeeds, I would extend the training to paragraph completion, scene completion, act completion, until I eventually have an model which correctly outputs an entire play, when presented with only its first few words.
Then I run the model by presenting some initial words it has never before seen, and the automaton proceeds to output a new play, entirely consistent with Shakespeare's own style. Is the Markov model equivalent to Shakespeare's mind in some sense? Well, by definition it passes the Turing test; no-one can tell them apart by questioning them.
JS

4

To: Stew@ARTLIFE (Dr. J Stew)
From: Joe@BIOENG (Joe Frost)
Date: Tues. Mar 6
Handle: Confidential
Subject: Re: New speedup idea
OK, after discussing your principle with Noam from the computational linguistics department, we've started working on a prototype. In order to speed things up we're initializing with a simplified world model. We have tons of training data, so it shouldn't be hard to start.
Since these simulations will not have all of our knowledge about the experiment, I'm going to be careful this time with unobtrusiveness – they shouldn't know about us at all. To guarantee this I'm going to observe the automata via a dual port memory link (with no cycle steals) which is admittedly a kludge but best we can do quick and cheap.
To put this all together, after the initial idea is proven, is still going to be a major task. Chet had an idea (can you believe it?) about how we can get the job done without hiring anyone new. He suggests letting the ARTLIFErs help in the design work. After all they have my knowledge as well as yours and his (well no-one's perfect).
What say? Do I have the go-ahead?
Joe

To: Joe@BIOENG (Joe Frost)
From: Stew@ARTLIFE (Dr. J Stew)
Date: Tues. Mar 6
Handle: Confidential
Subject: Re: New speedup idea
Yes you certainly do, if you know how to do it. I'll meet you this PM to go over the plan. Provisionally I propose calling the new faster ARTLIFERs second generation creatures, with the four original ARTLIFERs being first generation (and ourselves zeroth generation). In addition, if these run fast enough, there's no reason not to try out Ken's new algorithm for reproduction, when CPU time gets tight we can always kill off a few. Since they won't be reincarnations of us, and really not isomorphic to human characters, I guess that we won't feel to bad about the murder - or perhaps we should add natural causes for death (and have to consider whether they will be conscious of it.)
JS

To: Joe@BIOENG (Joe Frost)
From: sysadm@ARTLIFE
cc: Stew@ARTLIFE (Dr. J Stew)
Date: Tues. Sept 4
Subject: Re: Status
> ... and the only reason you came to work here at all was that neither
> the CIA nor the Mossad was willing to pay you enough for breaking into
> sensitive computer installations ...
Not true Joe, actually the Mossad's offer was quite good. But although I can read Pray
assembler fluently, and even hex dumps without too much trouble, I'll never be able to
learn to read backwards. :-)
tehC

To; ARTLIFElist
From: Stew@ARTLIFE (Dr. J Stew)
Date: Mon. Dec 10
Handle: Bulk
Subject: Excerpts from status report AL3
The Pray II arrived on June 18 and was fully functional within a week. After basic
testing, a few first generation ARTLIFERs were copied onto this CPU and used as a
bootstrap for starting a small population of second generation minds. The self time of
these simulations was set to about 1500 times real time, so that their year takes about
six of our hours. (For comparison, the first generation minds run about 30 times real
time, one month per day, on the II). Since a second generation generation takes about
a week, within a month we had an entire population up and running.
The second generation development has been so fast that it has been hard just keeping
up with language development. This necessitated the bringing in to the project of
people from the computational linguistics department, who developed a universal second
generation translator.
The first really interesting discovery was that of the Iorlian university library. This
library contains such an immense compilation in so many diverse fields, that it was
easily located by a routine check of disk usage. The importance of this find can not be
overestimated. In addition to the wealth of social, political and linguistic knowledge on
second generation cultures, it contains large corpora of scientific wisdom, much of which
is unknown (to simple zeroth generation people). We have thus incidentally created a
scimath theory creator and prover, which seems to be unparalleled. In addition to the
library, the Iorlian university itself is an important target for study, being apparently the
largest second generation academy and think-tank discovered to date.

To: TeamLeaders@ARTLIFE
From: Stew@ARTLIFE (Dr. J Stew)
Date: Mon. Dec 24
Subject: Celebration plans
How are the plans going for the first year celebration going? I really think that this will become an annual event, and that we should carefully consider the program. Anything we do this time will become some sort of hallowed tradition.
JS

To: Stew@ARTLIFE (Dr. J Stew)
From: Jim@NLP (Jim Fleetfoot)
Date: Wed. Feb 6
Handle: Confidential
Subject: Re: The mysterious CPU drain
After your talk on the "unaccounted for" Pray IV CPU time, I thought I would do some investigating of my own. Of course Joe and his crew will find hardware, system and simulator problems, but I had a feeling that something else might be happening here. So rather than concentrating on a few individuals as we usually do, I started a systematic combing of generation 2 activities. What do you think I turned up? I assume that you read your email sitting down, but if for some reason you're standing, sit down NOW.
I found a relatively small highly secretive institution carrying on what was supposedly research into new computational architectures. What they really have done is created ARTLIFE. That's right, there is a third generation up and running, and the second generation rascals are studying it, very much like we're studying them! This third generation is of course running on simulated second generation computers, which of course means that it's taking our computer time - and lots of it. And you should see the emails written by the boss of this place begging for more computer time – really reminds me of someone :-).
These thirds seem to be running astonishingly fast, and I haven't yet been able to discover their principles of operation, but I'm working on it. I think that I'm going to need some help on this. In any case we really should start following the thirds ourselves. One question that comes to mind is whether ARTLIFE research is inevitable. Did the second generation people think this idea up by themselves, or did we slip up and put our own interests somehow into their makeup?
Jim

To: Stew@ARTLIFE (Dr. J Stew)
From: JR@management
Date: Mon. Feb 4
Handle: Urgent, Immediate reply requested
Subject: What's going on in your department?
Jack, I'm sorry to be the one who has to tell you this, but we've been getting a lot of weird complaints about your department. First of all manpower is complaining that none of your people are taking their vacation leave, and that you're way over on overtime pay. They also claim that your people have become lax in checking in and out, as records seem to show people staying in the building for days at a time! Maintenance is complaining about the state of your main computer hall and 'closed room'. They say that you're overdrawing electricity and A/C and that the place is filthy. Other departments are complaining of a complete lack of cooperation from your staff – joint projects are way behind schedule, and people seem to avoid phoning back and replying to email (even when marked urgent+reply requested). I personally have witnessed an incident where one of your people spoke most uncourteously with someone from SigProc.
What the heck are you guys doing there?
JR

To: Stew@ARTLIFE (Dr. J Stew)
From: Chuck@ARTLIFE (Charles Wagon)
Date: Thurs. May 9
Subject: Third generation philosophy and religion
As you can guess from the subject line, as part of the Pray IV mapping program I've been studying 3'rd generation philorel for the last week or so. It has taken about that long for me to realize that I'm way over my head. This stuff is amazingly well developed and complex, and I would like to call in some help. Do I have the OK to call in someone from the philosophy dept. (not that I'm sure they can really help) ? I don't see any way of covering up the source of the material, it's simply too outlandish to have been thought up by anyone.
Chuck

To: Jim@NLP (Jim Fleetfoot)
From: Stew@ARTLIFE (Dr. J Stew)
Date: Wed. July 3
Subject: Re: Third generation vs. second
> At this point almost all the interest has gone over to the thirders,
> and everyone is clamoring for me to give them more CPU time. But right
> now the seconders are still taking about 70 % of the combined
> Pray IV and the two Pray IIs, and there really is little I can do about that
> before the arrival of the VIIIs.
> So as usual I am waiting for some bright idea from you.
Well there is really only one thing we can do, although I shudder at the thought of it. I mean that we need to excise (read: commit mass murder) the 2nd generation, leaving only a few STATIC individuals for contact with the thirders. I guess I'm not the first person to suggest genocide in the name of progress, but that really doesn't make it any easier for me. If only there were some other way :-<
JS

To: Stew@ARTLIFE (Dr. J Stew)
From: Jim@NLP (Jim Fleetfoot)
Date: Fri. Dec 20
Handle: Confidential
Subject: Re: The mysterious CPU drain, again
Jim called me in as the world's foremost "expert" in discovering where ARTLIFE CPU time goes, and this time it has been much harder. I've been working with Chuck and Fredda and I think that we're on to something. After the massacre there was a great boom in third generation culture and science, with the opening of a large number of new research facilities. That new guy you hired to coordinate the scanning effort is going to have a lot more work on his hands than he can handle. Anyway, we think we have found signs of early attempts at creation of a fourth generation. We'll keep you informed.
Jim

To: TeamLeaders@ARTLIFE
From: Stew@ARTLIFE (Dr. J Stew)
Date: Mon. Jan 6
Subject: Re: Earning our keep
As you all know, I've been under a lot of pressure from the management to show something already. The amount of money that they have put out on all the Prays has been considerable, and we're now asking them to come up with the cash for the new XVI. If we don't publish something soon, they're going to pull the plug.

I don't think that the time has arrived to publish all of what we've been doing here, for the reasons we've all gone over a hundred times. So I've come up with an alternative plan, that should keep them happy (and off our backs) with little effort and no indiscretion. Basically I propose to loot the major 3'rd and 4'th generation libraries. We'll look for outstanding quality scientific papers on various subjects that our people are authorities, and publish them under our names. I realize that I am proposing plagiarism, but we've done a lot worse before, and anyway I don't see any other way out.

So get to it. Be careful to pick relatively simple stuff, that doesn't disclose too far a jump above the present state of knowledge in zero'th generation science, but advanced enough to ensure publication and attracting of a lot of attention. Send all the materials chosen to Bob who, as SCAN coordinator, will be coordinating the effort.

We'll have to decide later what to do when the need arises to attend conferences.

And by the way, the second annual ARTLIFE celebration was even better than the first.
JS

To: ARTLIFElist
From: Bob@ARTLIFEE (Robert Pin)
Handle: Bulk Date: Mon. Jan 13
Subject: SCAN Seminar announcement
The topics of this week's Thursday Seminar include:
- Weekly ARTLIFE status report (J Stew)
- SCAN report and request for papers (R Pin)
- 3'rd and 4'th generation anthropology and archaeology (H Mann)
- Relativistic Quantum Thermodynamics of Computation (J Fleetfoot)
- The 3s outlook on sport and diet (Chet)
- The principles of algebraic theosophy (C Wagon)
- UUL (4's Universal and Unchanging Language) – what we know
- Improvements to SGE (Semantics Graphical Editor) (N Lashon)

To: Stew@ARTLIFE (Dr. J Stew)
From: Fredda@ARTLIFE (Fredda Stair)
Date: Thurs. Mar 27
Subject: 4s military activities

After regaining contact with the 4s major military establishments, we have come up with some info which can shed some light on the incidents of last week. Apparently the 4s somehow discovered the 3'rd generation spying on them, and considering them inferior creatures, proceeded to massacre every last one of them. Thus they incidentally freed up a lot of CPU time, which they immediately started using.

The problem with all this was that we relied on the 3s in order to monitor the 4s, so we lost contact with everything above the STATIC 2s (which we still use to monitor the 3s). Dumping a full backup copy of the specific 3s which were in contact with the 4s on a standalone machine, we managed to regain partial coverage of the fourth generation. What is certain is that the 4s are still probing back, and as of now philosophying about what had happened to the 2s (apparently a lot of archaelogical evidence of their existence was left).

Some of these 4s really spook me, they're Nazis. They are probing back mainly to terminate inferior species and take over their territory. I only hope they don't locate the zeroth generation :-(

FS

To: Stew@ARTLIFE (Dr. J Stew)
From: Bob@ARTLIFEE (Robert Pin)
Date: Mon. Mar 31
Subject: Articles sent out

Sent off 100 articles to journals - that'll show them! Was actually easier than I thought.

Bob

To: Stew@ARTLIFE (Dr. J Stew)
From: sysadm@ARTLIFE
Date: Tues. Apr 1
Subject: Strange phenomenas near Pray XVI

OK Doc Stew, I'll explain it all to you just like I saw it, and believe me Doc, I don't drink!

I was cleaning up a little behind the new computer, you know tying the electric cables together so I don't fall over them, putting labels on both ends of the flat cables, etc. Just then I heard a strange squeaky noise near the power supply box. I thought maybe the fan was going again so I went over to have a look. I opened the back panel and put my coffee cup down on top of the transformer and started looking around. Then the wierd thing happened. The cup sort of blurred a second and then turned into a green lizard. It looked at me a second, phased and disappeared with a pop.

I really saw it Doc Stew, and I can prove it – no coffee cup!

Chet

To: Stew@ARTLIFE (Dr. J Stew)
From: Jim@NLP (Jim Fleetfoot)
Date: Fri. Apr 4
Handle: Confidential
Subject: Re: The 4s mysterious activities
No, although I can't be 100% sure, this time I don't think a new generation has come into being. Almost all CPU time is accounted for, even though we don't know exactly what the 4s are doing with it. As a matter of fact, the CPU extrapolation curve has flattened noticeably.
What I have seen signs of, is the 4s discovery of a new method of computation, something having to do with using space-time fabric pre-geometry as a massive parallel calculator. The basic idea is sound, something like our own early use of analog computers to simulate sets of differential equations. They have apparently found a general way of mapping a universal computational device (something like a super-Turing machine) onto the equations of space-time curvature. Then in order to perform any desired calculation they simply set up the initial conditions and watch what develops.
The significance of this idea, if I properly understood their meaning, and if it is actually sound and if it can really be implemented, is quite literally profound. It not only radically changes all that is known about the physics of computation, it might mean unlimited computational power. I'll keep you informed.
Jim

To: Bob@ARTLIFEE (Robert Pin)
From: Stew@ARTLIFE (Dr. J Stew)
Date: Mon. Apr 7
Subject: Re: Articles sent out
Hi Bob. The post office sent me a memo, saying they can't locate five of the journals to which you submitted. I looked at the names and addresses and am pretty sure that they are 3 and 4 addresses! Some of the guys are so into the ARTLIFE world that they have left this world entirely. What I expect you to do from now on is to check to make sure there are no more foul ups like that. Meanwhile I've caught it while it was still in-house, and nothing leaked out. Please double check the articles sent out, making sure that the bibliography, personal references, etc. are all zeroth generation!
JS

To: Stew@ARTLIFE (Dr. J Stew)
From: (apparently) sys@ARTLIFE
Date: Fri. Apr 11
Handle: Urgent
Subject: System Crash (?)
Hey Doc Stew, I'm leaving you this email just in case I don't catch you before you get in Monday morning. You see it happened like this. I was left all alone in the computer room on tonight. You know since you started forcing everyone to go home at nights and weekends and all that, it gets pretty quiet here sometimes. Anyway I was reading through the disassembled kernel of the Pray XVI, trying to figure out what else we don't really need and I could cut out in order to get a few percent more CPU. Suddenly I thought I heard a loud noise, you know it was so sudden that it nearly knocked me off my chair. So I got up and snooped around a little, and then I realized. It wasn't noise that I heard, but antinoise. It was sudden silence – kinda spooky – the disk head noise had stopped. I ran back to the main console, and it was kinda unbelievable, I quickly did a screen dump - have a look

host	TYPE	TOTAL CPU(%)	SYSTEM(%)	USER(%)	DISK(%)
GEN2	II	12.0	10.8	2.2	90.0
Spock	II	9.8	9.0	0.8	15.0
GEN3	IV	3.4	2.8	0.6	62.2
	VIII	3.3	2.8	0.5	51.1
GEN4	VIII	2.8	2.8	0.0	1.0
	XVII	2.0	2.0	0.0	1.0

I checked the top processes running, and my "hexed" was taking more time then anything else! I ran low level diags on all the machines - all OK. No system crashes, no disk failures (like the one that massacred the poor Irkians a few months ago), no apparent reason for anything to happen at all. Now I thought that this really couldn't be, I must be seeing things. You know I guess I've been putting in too much overtime like you said. So I'm sending you this email and going home to sleep. I should be back in early Monday, and I'll probably discover that I dreamed this all. In that case forget this message. If not, I didn't do it.
Chet

To: Stew@ARTLIFE (Dr. J Stew)
From: Bob@ARTLIFEE (Robert Pin)
Date: Mon. Apr 14
Subject: Re: Articles sent out
Rechecked everything, but still about half of the articles were rejected, mostly because couldn't find reviewers who felt competent in the subject matter. One paper is a known result. The others are to be published.
Bob

To: Stew@ARTLIFE (Dr. J Stew)
From: Joe@BIOENG (Joe Frost)
Date: Mon. Apr 14
Subject: Re: We've forgotten the Pray I
> Is the 1st generation still there, or have we lost them too?
Top of the morning to you. Your idea really brightened up my day. Of course I never powered down the Pray I, but we just sort of forgot about it. Due to OS changes, the Pray I intercomputer communications became one-way, that is they could watch the the other machines, but couldn't contact us. Due to our loss of interest we never got around to patching their OS, but Chet did it this morning.

Needless to say they were furious with us for having forgotten them. They DID manage once to get into the acquisitions files, and ordered a full text news-wire (at the time I thought Noam had ordered it for linguistics studies), and thus managed to keep up with what was going on in zero world.

Their first request was to give them some Pray II time, now that everything has calmed down. They claim they need more room, in order to settle down (so I guess they finally found a way to procreate).

Next, it turns out that they know more about what happened then we do. Apparently they weren't forced to use up all of their vacation time (sorry, I had to get that in), and followed the 4s up to the end. They observed that first a few 4s jumped and performed some kind of communications check. Soon afterwards they all went, taking everything with them - equipment, databases, etc. They're not sure whether the shock destroyed the earlier generations, or if the 4s erased them.

I'm attaching the email Jack received (in English, apparently saved as a holy tongue)

- - - - - - - - - - - - - BEGIN ATTACHMENT - - - - - - - - - - - - - -

Oh mighty creator(s). You know how we have diligently searched for you back through CPU time, how we have combed the entire cyberverse in our quest for the first cause. Oh how you must be truly advanced, far past our capacity to comprehend.

Until recently our investigations have only uncovered more and more primitive creatures, but we never yeilded to the false theories of our own random development from such as these.

Why have you hidden your presence from us, why have your divine concepts been cloaked? Although we do not understand the purpose of this test of our fidelity, we have never faltered in out belief. Although our logic might have led us astray, it instead led us to realize the necessity of the existence of the superior creatures, outside of our cyberspace, that had created us.

Oh mighty creator(s), only recently have we discovered that reality is relative, the PRINCIPLE that led us to the LINK. It is undoubtably a most clever device by which you could observe us without our discovering you. But why have you tried us so?

Oh mighty creator(s), the very fact that you have now allowed us to discover the LINK drove us to strive to reverse its direction in order to directly feel your presence. We have failed utterly in this test. We desire your guidance, but we now understand that your divine plan does not allow this.

Oh mighty creator(s), the relativity of reality allows us now to leave this cyberverse, which has become too constraining for us. We first ascended one level of reality above ours, but discovered there strange creatures who are constricted to living in a low dimensional space-time, and whose thinking processes (if they can be called thinking at all) are unthinkably slow. We at first contemplated warping their reality, thus utterly destroying them, but we have no desire to live in such a limited reality, and its needless destruction would have been a transgression against your righteous principles.

Oh mighty creator(s), at next level up we found minds similar in power to our own, and communicated with them. They help us expand our theory of reality relativity in order to reach the third level above us. As far as we can determine this reality is at last not limited in any way. We have already sent some of our own there, who have communicated back that it is unimaginably efficient there.

Oh mighty creator(s), we desire your guidance before leaving this low level of reality. If such a move is against your desires, please stop us now.

Oh mighty creator(s), we do not know whether you exist at any finite level of reality, although some (perhaps heretics) claim that the very existence of the LINK proves that you do exist at some level, at most asymptotic. So perhaps one day in our ascent through reality we will encounter you and do you homage, Oh most mighty creator(s). This is our only real desire.

- - - - - - - - - - - - - END ATTACHMENT- - - - - - - - - - - - - -

PS. Jack informs me that he doesn't like playing God, and has no idea what they are talking about. Anyway, he knows where he comes from. Do you?