Extracted from:

NU Journal of Discovery Vol 2, March 2001, http://NUjournal.net, (c) Natural Uni 2001 http://Nujournal.net, (c) Natural University.net

Can you imagine designing the Universe?

What follows is a major challenge for your imagination. Are you ready?

Imagine that there is no Universe and it is YOU who considers designing it. You are intelligent, but you have no "physical body". There are no atoms...

How could you have come to existence? How did you become intelligent? Somehow you must have developed an ability to create, store and process information in the tiny fluctuations and perturbations that occurred from time to time in the Nothingness. It took a long time, perhaps billions of trillions of our years, and many trials and errors before you could sustain certain forms of these perturbations and play with them.

In the process of play, you have gradually developed your intelligence, imagination, the ability to think and draw conclusions. There was nothing else to do. You have figured out that becoming more intelligent was far more pleasant than remaining stupid and primitive. Every time you chose not to think for too long - your intellect and imagination regressed and some of your "memory" got erased. Hence, you established a motive to evolve and continuously develop your intellect.

Eventually, after a long time of playing with information, thinking, imagining, trial and error - you have established yourself and become exceptionally intelligent. You have developed an ability to imagine and design anything, even things that had never existed. Using your exceptional intellect and imagination, that you have learned to encode in the tiny perturbations of the Nothingness, you could predict results of your actions and consequences of your designs.

What could be your REASONS for imagining and designing the material Universe? Expanding the range of conscious sensations? Having something interesting to do?

In the Beginning, it took a considerable intellectual effort just to maintain your intellect and memory. How about designing and creating something that would sustain itself, at least for some time?

You imagine an "electron". You imagine its natural oscillations to be so intense that their natural decay would take ten billion trillions years (10^{22} years). It appeals to you that during this time you will be able to use the @100 Gigabytes of storage capacity in each electron.

You realise that creating such "electrons" requires quite an intense perturbation of the Nothingness. It actually requires an immense explosion to take place. It requires a truly Big Bang. You have tried many small "bangs" in the past in an effort to sustain

yourself, but their results were short lived. You consider designing an explosion far bigger than ever before.

You realise that a well designed explosion with precisely defined initial conditions offers some interesting possibilities. A great variety of relatively stable natural "forms" of oscillation can be generated, not only electrons. You realise that these "elementary" forms of oscillation, although well separated in the frequency domain, can be combined in "space" to create relatively stable "atoms" from which more complex structures can be made, including intelligent and autonomous Living Organisms.

A possibility of existence of intelligent and autonomously functioning Individual Intellects appeals to you a lot. You envisage that some of them may choose to develop their Intellect as much as you did. You like an idea of intelligent company.

You decide to create favourable conditions for their Intellects to develop. You plan to arrange for them to have access to some of the gigantic "electro-photonic" memory that you are just imagining. With enough facilities, autonomous Individual Intellects will have the potential to develop their Intellect far quicker than you did. Consequences of the Big Bang become quite appealing.

There is only one problem. The Big Bang can actually destroy your own Intellect, which is *your only asset*. After all, the Big Bang will be a gigantic perturbation, far greater than the delicate fluctuations that you currently use to maintain your memory and consciousness in the Nothingness. How can you protect your Intellect?

An obvious solution to protect your Intellect from the Big Bang is to make a large number of "backup copies". The most elegant solution would be to encode your Intellect in the "initial conditions" of the Big Bang, so that every "electron", every "photon" and every other "elementary natural oscillation" that would appear as a result of the Big Bang would contain a blueprint of yourself to begin with.

Although each electron can contain unique data, it seems logical to encode the most important, essential "code" of your Intellect in each and every electron as a common part. After all, you are planning to have plenty of "free memory" and maintain the option to consciously control every aspect of your Universe rather than allowing it to become "runaway machinery" out of control and without purpose. You want to be able to design Laws for the behaviour of your Universe and modify them locally or temporarily if necessary.

The other necessity that arises from the need to protect yourself seems to be encoding your intellect and memory so that they both become "jam proof". Direct amplitude or frequency modulation encoding is clearly not suitable, because they are too easily disturbed. The discrete phase-encoding *spread* among many natural forms of oscillation over a wide frequency range (spectrum) seems a very attractive possibility, not only because it is robust to disturbances but also because it enables you to achieve a very high density of information storage.

Discrete encoding will also protect your intellect and memory from pollution and interference after the Big Bang. In particular, it will protect your consciousness from

primitive and disruptive actions of other autonomous Individual Intellects. You prefer to be able to *choose* to communicate with them when they become sufficiently evolved to understand you and your Design.

You realise that the Universal discrete phase encoding will also allow every Individual Intellect in the Universe to have the total Freedom of Thought that you enjoy so much. Sharing your "electro-photonic memory" and "letting Life Live autonomously" becomes quite feasible... It could be fun...

Since you start from the beginning, you can design the Entire System to be as optimal as you can only imagine. Of course you have your preferences. There are certain thoughts, feelings and conscious sensations that you like. There are also other thoughts and feelings that you don't enjoy at all. Can you identify them?

You realise that the key criterion of a good Design should be it's ability to self-correct, so you won't need to disrupt yourself by having to fix mistakes. This is especially important, because you plan to allow other Individual Intellects to have complete autonomy. Of course you will try to inspire them to advance themselves, but what if they choose to mess up your Design and continue to broadcast clutter across the Universe?

You definitely don't like the idea of having to decide whether or not to terminate anyone's conscious existence. How about providing Individual Intellects with tools and toys of self-destruction?

How about arranging "pre-schools" for groups of these Individual Intellects on some specially designed, distant and well isolated "planets" so that they can learn to coexist with one another, as well as some part of your Design (the ecosystem) before they can reach you? This seems a very good idea, because if such Individual Intellects refuse to evolve or refuse to coexist or refuse to recognise key features and the Purpose of your Design - they will eventually cause their own extinction. It's not that you want them to. You just don't enjoy having to deal with idiots who refuse to think. You prefer for them to deal with themselves. You prefer them to choose by their Free Will whether to evolve or vanish.

You really like the possibility of *intelligent* company. Since you want everyone to evolve as quickly as possible, you want to "give" them everything they could possibly need in such a process. To your utter amazement, you discover that the most important things about Conscious Existence are also those that actually cannot be "given".

No matter how much you desire the other Individuals in your future Universe to be intelligent, you cannot "give" anyone else any of your Intellect. Every autonomous Individual has to become smart entirely on its own - exactly like you did - by making conscious choices, experiencing their consequences and drawing conclusions. Development of Intellect is a result of an individual effort.

You cannot "give" anyone any Imagination. Every individual needs to develop it on its own. You also cannot Understand anything for anyone. Every individual needs to achieve understanding on its own. You cannot experience, express or even establish a

need for subtle and blissful feelings such as Love for anyone else. Every individual needs to learn it all on its own...

You wish every Individual in your future Universe aimed for all those things that cannot be "given". These are the same things that cannot be taken away...

You conclude, that the only true assistance that you can actually provide for other Individuals to evolve is an "environment" for learning, an environment for making choices and experiencing their consequences.

Since the development of Intellect and the associated abilities is strictly an individual effort, the total Autonomy of Thought for every Individual in your future Universe becomes extremely important. You decide to give it a priority.

You decide that in your Universe - every Individual will have a totally unrestricted Freedom of Thought and unlimited potential to develop Intellect. Most definitely - you do not want puppets. For this reason, you plan to do everything you can to ensure that every Individual Consciousness is "jam proof" and can be programmed only with the consent of a given individual.

You decide to allocate generous memory resources to each Individual Intellect - about 4 billion trillion (4e21) electrons, each having about 100 Gigabytes of storage capacity. You plan to allocate each individual with the unique code to access its private memory space. There should be no "duplicate Individual Intellects" in your Universe.

You realise that you can greatly accelerate the intellectual development of every individual if you "pre-fill" its allocated memory with some useful data. You can even supply an easy to execute "software library". Specifically, this private "library" can contain an algorithm that can control the development of a "physical body" from the simplest combination of atoms. Of course, the tiniest fragment of such a "physical body" would then contain the "unique code" allocated to each individual.

A well designed library of easy to execute "functions" will free each individual from having to control trivial things such as metabolic processes, generation of energy, immune system, self repairs of the body etc... especially at the initial stage of their evolution. When they evolve, they should be able to control every process in every cell of their body using their own intellect. Eventually, they should be able to modify your "software library" according to their own preferences. The only tool that they will ever need to accomplish such "genetic" modifications will be their own consciousness. Isn't it obvious that such evolved individuals will choose to make their bodies more beautiful and functional?

You realise that the consequence of a strict "privacy" of Individual Consciousness will make every individual experience isolation and loneliness at every stage of evolution. You conclude that experiencing and understanding "loneliness" is essential not only to evolve intellectually, but also to understand You and Your motives for imagining and initiating the Universe...

You realise that you would really enjoy *being understood*. Will anyone in your future Universe evolve enough to understand you? Since every Individual will have the total Freedom of Thought, there is actually no guarantee that anyone will even aim to understand you. You could simply be ignored or worse, totally misunderstood and even misrepresented... How would it feel?

You decide to maximize the probability of Individuals in your future Universe choosing to acknowledge and admire your Intellect by their Free Will. You imagine Nature - SO beautiful, SO fascinating, SO majestic and magnificent, SO intelligently functioning, that anyone with any trace of intelligence and sensitivity simply wouldn't be able not to admire its Design.

You envisage the existence of a magnificently designed Material Reality and Life as a way of revealing your Intellect to any intelligent observer, without interfering with its autonomy and the Freedom of Choice³.

How many Individuals will notice and appreciate it? One in a trillion? You don't know - they will have the total Freedom of Thought. It is entirely up to them what they choose to Think and do. You are not interested in interfering with their Autonomy. After all, it is Autonomy that is the essence of Conscious Existence isn't it?

In your Design you aim for the Best of the Best. Thanks to Autonomy - the Best of the Best can simply choose themselves... They can choose to develop their intellect and continue to apply it to advance themselves further.

In contrast, those unwilling to achieve enough coherence in their thinking will not be able to sustain their consciousness and will eventually cease to exist...

You like the idea of the Self-Perfecting Universe inhabited by the Best of the Best... Aiming to design anything else just doesn't make sense... Aiming to design anything else would be an insult to your Intellect...