

Don't mention the 'F' word

Raising brows.

Neil Mathur

"But Mr President, funding femtotechnology will lead to untold advances in medicine, information technology and defence." A piercing look expressed the president's scepticism. No more broken promises would be tolerated.

"Admittedly we had a few hiccups with the earlier technologies, but look, it wasn't that bad. Only 10% of lab heads were successfully convicted, and only 5% of the labs consumed themselves."

Mechanically, the president raised a disapproving eyebrow. "And just think of all the advances..."

Moving swiftly on, the applicant continued: "As I set out in my agenda, I am going to explain why the previous problems won't plague us this time round."

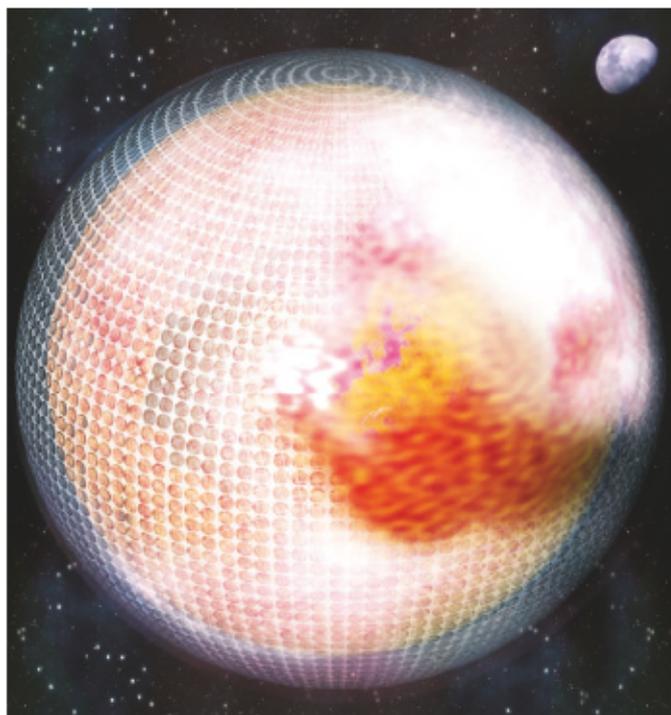
The president's eyebrow raised itself one notch further.

"Addressing small structures was next to impossible in earlier programmes because everybody was working at disparate length scales. It would be like you trying to address an individual by speaking to a crowd." Another notch. "But the proposed femtotechnology programme will overcome this by cascading the structures from the

previous technologies. In fact, it will be just like what you do when you spread the word through the party apparatchiks." The penultimate notch, and still the issues of reproducibility and scale-up to negotiate.

"Reproducibility will be a prerequisite for permanent publication. Yes, I know it is unfortunate that in some cases whole journals had to be reclassified by libraries as science fiction. But this time there will be checks and balances before it gets to the criminal stage. For example, papers will be deleted after two years if they have not been either verified directly or positively cited. And when this happens, all associated honours, promotions, prizes, grants and even centres will be automatically rescinded." Down a notch: so far seven Nobels had been redesignated IgNobels, somewhat spoiling the original IgNobel competition conceived in far more innocent days.

"Scale-up will be routinely achieved by the picobot drones. These can be programmed to implement designs of arbitrary complexity, and the magnitude of the end product is simply determined by the number of drones employed." Back up to the penultimate notch. "Now, wait. There were a lot of advances under the previous programmes and the whole reason that we don't call it 'self-assembly' any more is because we really can do it."



The use of picobot drones would be the unpopular part of the programme to say the least. This is because the 5% of labs that consumed themselves were working on picobot drones. And when the doomed labs had finished consuming themselves, they moved on to the surrounding cities and then just kept on going. This is what precipitated the Evacuation. The doom-sayers had therefore been proved right. Not in every detail, however. For example, the goo to which planet Earth got reduced was not grey, but orange.

A lot of folk were particularly upset about having to relocate to the Moon. Outdoor enthusiasts probably suffered the most. For example, the lunar seas were not much use to the surfing community — most of whom went mad. However, the proponents of small things pleaded mitigation by pointing to the fact that without picobot drones, it would

have been impossible to build the Moon colony. That said, the drones were misbehaving: mutants would often attach themselves to the colonists and draw precious nutrients.

The picobot drones therefore generated by turns, feelings of hatred (for munching through the Earth), gratitude (for building the Moon colony) and irritation (for acting like lunar ticks). Eventually, attitudes towards the drones came to dominate all

conversations. But this is connected with the fact that it was forbidden to mention the picobot clones; or even think about them. In this and other respects, George Orwell — by calling his book *1984* — predicted his vision of totalitarianism only 100 years too soon.

The first picobot clones were built in order to assemble themselves into the cell parts required to make animal muscle tissue. This work was initially funded by a fabulously wealthy restaurateur who wanted interweaving and sculptured cuts of meat for his expensive establishments. Of course, growing meat in this way meant that it was no longer necessary to kill animals. So the project took off on the grounds of animal welfare. Ironically,

all Earth's animals became extinct anyway because there was no ark to take them to the Moon.

The alert reader might have noticed that the evidence linking the picobot drones to the destruction of the Earth was entirely circumstantial. In fact the drones were innocent: it was the clones. Of course the system did not permit the colonists to speculate about this possibility. For if it did, they might have also come to speculate about the clones' ability to differentiate and assemble themselves into, say, the president of the Moon. In fact it was the mention of 'self-assembly' that pushed the leader's eyebrow to its highest level.

"Get out," said the president, "and never come back."

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