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CONSIDER THIS:

#50 Standards, Virtual Worlds and The Big Question

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It was not so long ago that most kids in school experienced a predictable "Oh Wow!" moment when they learned about atomic structure (that's "Oh Wow!" as in, "What if our solar system is, like, you know, just an 'atom' in this, like, *really big* 'molecule' thing called a galaxy and…").

Today, of course, that Oh Wow! moment is more likely to be sparked by a video game or, more recently, by a visit to a virtual world. And after all, the basis for the old *Oh Wow!* Concept was crumbling anyway, what with the discovery of subatomic particles, and the assumption that there's no physical "there" there at all – just electronic charges. Or whatever. Personally, I've always found the video game day dream more appealing than the atomic theory in any case. After all – how much difference is there really between what happens when you turn on a computer monitor and the Big Bang? *Oh Wow!*

The old concept of life as being something other than what we suppose returned to me just now when I read at Bob Sutor's Open Blog about a Virtual Worlds Conference held at MIT on June 15 (you can view the agenda for the event at Bob's blog here, and find a live blog entry at Virtual Worlds News on a panel that Bob moderated here). And yes, there's (of course) a standards hook in here somewhere.

You'll find the standards connection in a related article (catchily titled Standards to help users keep virtual clothes on). In that article, IDG's China Martens interviews Sutor in advance of the Virtual Worlds Conference. Given that Bob is not only a recently hooked virtual world fan but the chief standards and open source strategist at IBM as well, he had a few thoughts about why virtual worlds need standards. For example, the article includes this:

> "A lot of people are looking at Second Life and saying, 'Let's do one of those,'" said Bob Sutor…. "The last thing you want is a lot of different ways to do the same things. You need standards for how to teleport between different virtual worlds and to bring objects with you." …Besides an avatar's clothes, those objects could include the money it was using in your home virtual world as well as a presentation you might want to share with your colleagues or potential customers.

Hmm. Sounds like a real problem you'd want to tackle - who (with the possible exception of Paris Hilton) would want to arrive in a room full of people unannounced with no money and no clothes, even virtually? But as virtual worlds get fine-tuned to this degree, the old "Oh Wow! What if…?" question may be moving from the fun to the mildly uncomfortable.

Why uncomfortable? Well, have you ever noticed that no one has a clue what or why gravity is? We observe and measure its effect and try and fit it into a Grand Theory of Everything, but let's face it - we haven't got a clue what "it" really is. "It" just "is." Full Stop. In trying to quantify it and fit it into some logical relationship to other (equally unknowable) strong and weak forces, it's easy to forget that we haven't even a tentative theory to explain *what* or *why* gravity "is" at all.

Or how about mathematics? Math doesn't exist in any sense other than that physical objects often seem to be better at working with it than many of us are - and it always works. Always. Now why exactly would that be?

If an explanation for the existence of gravity cannot even be imagined, then perhaps we are left with the conclusion that gravity is simply the manifestation of a rule or standard, to which the world we observe is required to comply. In fact, making the assumption that the world is governed by *rules* instead of *laws* helps solve a lot of puzzles.

After all, Newtonian physics pretty much work, but not all the time. When you get down to the realm of the really, really small, then you have to pull out a different rule book (the quantum physics one) to explain why things happen the way they seem to. And when you get to the really, really big, how about that pesky Dark Matter? (That's "dark" like the color of fudge – as in "fudge factor.") If all physics is just a collection of imposed and not too rigid rules rather than the observable and inviolable physical laws we think we observe in action, then we never have to figure out where all that Dark Matter is hiding. It becomes just another "known issue" that the programmer fudged.

Clearly, things then become more simple. Once we quit insisting on immutable laws and think in terms of design rules, used when they're really useful and ignored when they're in the way, we don't need a Theory of Everything and bizarre patch jobs like string theory or dark matter at all. Think of it as semi-intelligent design. And if you would like to think that we really are made in someone's image, then all of the bad software design work in the world becomes a whole lot easier to live with.

Feeling uncomfortable yet? Well, let's try this then. Imagine yourself sitting with others at a white board at Linden Lab when Second Life was first being spec'ed out. All kinds of decisions would need to be made, wouldn't they? Should gravity apply, or not? If it does apply (but not so inflexibly – those lucky avatars can fly!), then we need rules for things like acceleration, or all chaos would result as Second Life becomes more densely populated. And to implement these rules in software, we'd need to have formulae, to make them feasible and predictable, wouldn't we?

Now let's say we wanted to be more conservative and anal than the Linden Lab folks were, or perhaps we just wanted to make our virtual world much more

complex (as Linden Lab may itself do over time). We might then want those rules – standards, after all – to interoperate seamlessly in order to permit that complexity to operate successfully. If we wanted to allow space travel to other virtual worlds, we'd need to work that out, too. And so on.

Viewed from that perspective, what are physics and astrophysics and the math that serves them but a set of standards for how objects and energy are *instructed* to act? And so we see that when physical laws are viewed simply as design rules, then gravity needs no more explanation or reason for existing than does math – it could be just a feature the designers found to be useful. Once described and encoded, the rule must be obeyed. "It" then just "is" because "it" is the implementation of a standard that governs the world (virtual or real).

That of course leaves open the same old Big Question: Who "wrote" the standards? A Creator in the traditional, religious sense? Some cosmic virtual world vendor? A standards committee (composed of who, or perhaps what)? I'll leave that question up to you, but I'd love to ask whoever it was a few other questions, like these: if it was all discretionary anyway, *why didn't you let me fly?* And isn't it about time to release Earth 2.0, maybe without Dick Cheney this time?

Regardless, the more detailed and finely tuned our virtual worlds become, the more uncomfortable this type of question may feel, as the similarities between our (supposedly) real world and these virtual worlds increasingly outweigh the differences. As this occurs, more questions may arise, like this one: perhaps the Kidnapped by Aliens crowd may not be so crazy after all – maybe the designers of earth just did a lousy job on the travel between virtual worlds standards Bob Sutor thinks we need. After all, a few bad standards would really add to the credibility of the theory, wouldn't it?

So there you are. Something to think about the next time you have nothing to think about. And when you do, here's one last thing to mull over: will our world (game?) really end when the sun becomes a red giant and roasts us to a cinder, or will some cosmic server with a faulty backup program simply and inevitably crash someday instead?

No burn, no bang. Just an all too imaginable whimper as the hard drives coast s-l-o-w-l-y to a halt…

Damn! I *hate* it when that happens!

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