

Re: [Sci.nanotech] Re: Nanotechnology Redefined

Source: <http://sci.tech-archive.net/Archive/sci.nanotech/2005-12/msg00040.html>

- *From:* Jim Logajan <JamesL@xxxxxxxxxx>
 - *Date:* Wed, 28 Dec 2005 01:40:16 -0000
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I'm going to establish my position first by listing some points, then address some of John Novak's points (way down below).

(1) The charter, such as it exists, for this group, is in J. Storrs Hall's call-for-votes which is archived here:
<http://groups.google.com/group/sci.bio/msg/97569cbbcd386b58>

(2) The "List of Big Eight Newsgroups" summary line for this group has been for many years:
sci.nanotech Self-reproducing molecular-scale machines. (Moderated)

(3) Newer, older, or alternate definitions of "nanotechnology" do not in some magical way alter the charter and original intent of this discussion group as specified in (1) and (2).

(4) Many words have multiple meanings. The meaning of "work" in physics has a specific and fairly precise meaning, while the colloquial meanings have little in common with the technical meaning (something I think everyone can, ahem, work out). One of the first tasks of introductory physics courses is often the disambiguation of these meanings. Deliberate creation of multiple meanings for a word is clearly a counterproductive endeavor for everyone but the poet, punster, or huckster.

(5) Attempts by literalists to disassemble "Nanotechnology" in hopes of finding its "true" meaning are misguided simply because the subterms are insufficient to disambiguate the term. The subterms could just as easily be taken to disambiguate to:

- a) Nanosecond technology: the technology of events on the order of a nanosecond in duration.
- b) Nanometer technology: the technology of anything on the order of a nanometer in length.
- c) Nanogram technology: the technology of anything on the order of a nanogram in mass.
- d) Nanodollar technology: technology development on a budget. ;—)

And so on. Obviously the term was, like many invented terms, not meant to have its meaning discerned by a literal disassembly of its component terms. But it was, and I don't think it was done by poets or punsters.

(6) What do Legos[R], large ball bearings, coins, and large gravel have in common? Among other things, they are all between 1 and 10 centimeter in size. If ball bearing developers created a term like "centitechnology" to describe their area of research, it might be odd, but odder (and more useless still) would be for someone to later apply the term to uses of Legos, coin making, and gravel.

(7) In the same way that a "Centiscience" journal would be a mass of articles of little or no overlap or use to readers in the Lego, ball bearing, coin, and gravel communities, "Nanoscience" journals are an inefficient collection of disjointed articles because of the nearly useless form of categorization chosen.

(8) Notwithstanding all of the above, any post that could remotely be considered relevant to the topics mentioned in (1) or (2) are considered on topic here – whatever terms one wants to use. And since I may suffer from lack of imagination at times and may overlook some tenuous link of nanotech relevance I've tried to be open minded in what I approve (low traffic levels help too!)

Now on to my replies to some of John Novak's points:

John.S.Novak@xxxxxxxxx, III <jsn@xxxxxxxxx> wrote:

> Other practitioners, who are achieving experimental results, have
> other definitions.

In my humble opinion, if the results are in any way useful to the creation or use of self-reproducing molecular-scale machines, then they are nanotechnology as defined for the purposes of this newsgroup.

> Drexler's and others' attempts to define nanotechnology to mean only
> what they themselves mean has always struck me as all of
> narrow-minded, futile, and counter-productive at the same time.
>
> Narrow-minded because both science and engineering are experimental
> disciplines of discovery, and asserting total control over the use of
> a term whose products have not even been realized in even the most
> advanced research lab is hardly a vision of discovery— it's a false
> assertion that the discoveries have already been made.

Well, physicists don't assert total control of the word "work," but in the narrow confines of physicists talking to physicists you'd find them very "narrow minded" if some of their members suddenly started to use it with a new meaning.

(I do wonder though: if I'm narrow-minded in using nanotechnology only with the meaning Drexler first used, are people who dismiss that technology as bunk broad-minded or narrow-minded? ;-))

> Futile, because very few people are going to be affected by the end

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- > result of the breastbeating over the topic. At the end of the day,
- > people are going to use the terms however they want to until a
- > community consensus is achieved. Want to affect the consensus?
- > Publish or produce something important.

Drexler published a few things using the term. So did a bunch of other authors. They even held conferences, complete with published conference proceedings – and experimental results were presented – all using a common understanding of nanotechnology. All done over a course of several years with no ambiguity in the term. While it *may* be futile to fight the new meanings, we can't change the name of this newsgroup (though we could abandon it I suppose) nor is it possible to go back and rewrite all the old books and such that used Drexler's meaning.

- > Counter-productive, because most people at the sidelines looking in
- > see these sorts of terminological disputes, and roll their eyes. It
- > would be lovely, I agree, if everyone meant the same thing when using
- > the same word. I will even admit that there is a funding-fed
- > bandwagon effect distorting the term, but it's little different in any
- > sexy up and coming field. I think the harm caused by the squabbling
- > outweighs the harm caused by the loose terminology.

If it was just a dispute over useless terminology, I agree it would be just an "eye rolling" squabble (though not terribly counter-productive in my humble opinion). I'm not terribly worried about people on the sideline – I'm more interested in making sure the people dispensing those funds you mention really understand what kind of research they are funding.

The very existence of a squabble over terminology would hopefully cause nanotech funders to look a little more closely at the criteria they are using in dispersing their research funds, rather than rely on a term in dispute.

• *Follow-Ups:*

- ◆ **Re: [Sci.nanotech] Re: Nanotechnology Redefined**
◇ From: John . S . Novak

• *References:*

- ◆ **Re: [Sci.nanotech] Re: Nanotechnology Redefined**
◇ From: ed ehrat
- ◆ **Re: [Sci.nanotech] Re: Nanotechnology Redefined**
◇ From: steve
- ◆ **Re: [Sci.nanotech] Re: Nanotechnology Redefined**
◇ From: Perry E. Metzger
- ◆ **Re: [Sci.nanotech] Re: Nanotechnology Redefined**
◇ From: Oliver 'Ojo' Bedford
- ◆ **Re: [Sci.nanotech] Re: Nanotechnology Redefined**

Re: [Sci.nanotech] Re: Nanotechnology Redefined

◇ *From:* Eugen Leidl

◆ **[Re: \[Sci.nanotech\] Re: Nanotechnology Redefined](#)**

◇ *From:* Perry E. Metzger

◆ **[Re: \[Sci.nanotech\] Re: Nanotechnology Redefined](#)**

◇ *From:* John . S . Novak

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