

Images and the Struggle for Meanings in the Nanotechnology World

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Images of nanotechnology abound, from the IBM logo and Nanogear images, to the 'Nanolouse' repairing blood cells and images of risks of proliferation of Nanobots, or just carbon nanotubes that have to be inspected. Such images are created and used by actors for their own purposes. This is not straightforward instrumental use. Actors delegate part of their message to an image that is supposed to work for them, but images have also their own dynamics, once they start to circulate. They are taken up by other actors for their purposes, and, presented in different contexts they can convey messages different than originally intended – although within the constraints of the 'story' that the various images tell.

In the struggle for meanings, images are one of the 'weapons'. Part of the struggle is delegated to how they are instrumentally used to convey a message. But then, when they get a life of their own, they will carry on the struggle on their own terms, somewhat independently of the strategies of the actors that put them up originally. This is visible in the uptake and use of the Nanogear-type images created by the Foresight Institute, but also in the way the Nanolouse image has been used. This struggle for meanings is about perceptions and images that may become dominant.

The next question is what this implies for the development of nanosciences and nanotechnologies. One issue concerns credibility and requirements on further developments. By now, the 'Grey Goo' images are too far away from ongoing developments to have much impact. The Nanolouse image, however, although originally an artist's impression, feeds into ideas about 'magic bullets' redressing our sorrows, thus reinforcing directions to go in nanomedicine (cf. European Technology Platform on Nanomedicine). Clearly, images do not have effects by themselves; they function as part of a constellation of visions, metaphors and narratives. Within such a constellation, they may have a service role, e.g. as illustration, but also a leading role, when they convey a "portable" message, as is the case with the Nanolouse image.

While there is no simple linear mechanism from images to choices to actual nanotechnology developments, there are co-construction dynamics that can be traced empirically and in which images are an integral element. In this paper, we will conclude by discussing two examples of such co-construction processes: The Nanolouse image and nanomedicine strategies, and nanogear images and the promise of molecular manufacturing. There is a difference with concrete and thus more context-specific nanotech co-construction processes, where broad promises as carried by images are less relevant.. There will still be pressures inspired by such images, however, from audiences (policy makers, patient organizations etc) on nanotechnology developers.