

This response was submitted to the consultation held by the Nuffield Council on Bioethics on Emerging biotechnologies between April 2011 and June 2011. The views expressed are solely those of the respondent(s) and not those of the Council.

Nuffield Council on Bioethics. Emerging Bio report

Hilary Sutcliffe personal observations

1 How would you define an 'emerging technology' and an 'emerging biotechnology'? How have these terms been used by others?

I am increasingly finding the term unhelpful. What does 'to emerge' mean!? When is it emerging, when has it emerged? GM, Food Irradiation, Stem Cells therapies, genomics for example can certainly be considered emerged in some areas of use, though may be considered emerging when used in others. New social and ethical issues arise or persist from different applications of a technology which has, in theory, emerged and the institutions and mechanisms for regulating, debating or generating acceptance are similar to those called emerging.

Does the trajectory of a technology's emergence denote a certain state of knowledge, acceptance, commercialisation, regulation? I look forward to your view on this!

I think the WEF definition you use is useful, though something about the unpredictability and potential for significant social and ethical, HSE challenges or concerns may be fair to have in there as well. It is for these reasons that we are all having this conversation, not really for the reasons which make up that particular definition. Perhaps it is something about the conflicting views of the potential, effectiveness or impact which is also a component.

This then adds to my unease about the term, because for a definition to be fair, it should encompass these things, but then really is it a 'definition' or is it a 'description' or just a cluster of issues about technological innovation which we are trying to squish together for other purposes?

Language barrier

Another reason I dislike the term is it is a language barrier. When you say 'emerging technologies' it isn't very descriptive or understandable by ordinary people, or even scientists. If we are going to have to involve the public and other stakeholders in debates about research, development and usage we are going to have to try harder to use inclusive language which is more widely relevant and clear.

Responsible Innovation?

However, is there a replacement name? I am not sure. At MATTER we are more frequently now referring to Responsible Innovation as a way of covering the issues which arise, but may include those from a variety of technologies, some more high tech than others. 'Responsible' is a turn off word in some quarters, but a clearly understood concept in others. Innovation is understood more concretely in some arenas than others, but is more inclusive I think may be more relevant to what the public understands in relation to the use of spooky new science. However, it is also very broad, and may be too broad.