

“The undeciphered Phaistos Disc is perhaps the most infamous of ancient inscriptions.” Andrew Robinson, page 990

decoherence can explain the famous double-slit experiment. An electron interacting with innumerable quanta in the photographic plate (and its environment) becomes entangled with all of them — and the resulting collective wavefunction is so narrow that it appears particle-like.

But the question remains as to why the wavefunction narrows in precisely the location where it does, or — as Schlosshauer puts it — “Why is a single spot here and not there?”

The author’s somewhat ‘foggy’ answer is suggestive of a version of Everett’s ‘many worlds’ idea (see *Nature* **448**, 15–17; 2007), in which all possible branches of the wavefunction continue to exist autonomously. But this interpretation merely shifts the question to “Why do I find myself experiencing the branch/world with the spot here and not the branch/world with the spot there?”

We still have no answer and, if there is one, decoherence is at best only part of it (S. L. Adler *Stud. Hist. Philos. Sci.* **34**, 135–142; 2003). As Joos and Zeh remarked on decoherence as a source of spatial localization: “Of course no unitary treatment of the time dependence can explain why only one of these dynamically independent components is experienced.” (E. Joos and H. D. Zeh *Zeitschrift Phys. B* **59**, 223–243; 1985).

We are still left with a dichotomy: on the one hand, infinitely many continuously distributed potentialities, and on the other, one narrow, irreversibly realized actuality. Contrary to Schlosshauer’s conclusions, complementary (mutually incompatible) descriptions are necessary to describe the landscape we are currently experiencing, even as the fog is lifting.

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Ventures should not overstate their aims just to secure funding

SIR — Revolutions are often conceived with the best intentions, but so easily claim more than is plausible and more than can ever be delivered. We fear that the “revolution in climate prediction” called for by the World Modelling Summit for Climate Prediction and reported in your journal (“They say they want a revolution’ *Nature* **453**, 268–269; 2008) will fall foul of the same hubris.

Any venture bidding for investment that exceeds a billion dollars needs to have well-grounded justifications. Advancing our basic understanding of how the climate system works through enhanced representation of that system in next-generation climate models — (“pure intellectual excitement”) — may indeed be such justification. But claiming that this will allow scientists to “provide answers to key questions ... such as future food supply” and guide decisions the world will be making to cope with climate change displays a misunderstanding of the nature of adaptation and its contingency on our imagining of future social change.

The reason that the UK summit at Reading University over-claimed the benefits of climate prediction for adaptation in its pitch for a billion dollars of new science investment is revealed by the summit’s chair, Jagdish Shukla, in his warning: “If we just ask for enhanced understanding, then we have very little chance of getting the necessary funding”.

Effective and robust adaptation strategies are not significantly limited by the absence of accurate and precise regional climate predictions. They are limited more by a multitude of technological, institutional, cultural, economic and psychological factors that lie beyond the reach of climate models — and always will. The epistemological limits to predicting future climates with accuracy and precision must not

be used as a reason to limit adaptation to climate change. Bring on the revolution if you will, but don’t mistake it for Utopia.

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Digital identifiers work for articles, so why not for authors?

SIR — Several Correspondences, including ‘Give south Indian authors their true names’ (*Nature* **452**, 530; 2008) and ‘Name variations can hit citation rankings’ (*Nature* **453**, 450; 2008), have illustrated difficulties in identifying authors and their papers, citations and *h*-index.

In an academic world in which decisions on promotion and funding often depend on the applicant’s scientific impact, an incorrect publication or citation record in an online database can be very inconvenient. Scopus and Thomson’s Web of Science, which make available abstract and citation databases, acknowledge the issue and have come up with solutions: the Author Identifier and ResearcherID, respectively.

These systems assign an identifying code to each author. Unfortunately, a single author can have more than one Author Identifier in Scopus (I am cryptically known as 7006716603 and 16551750300). And as only invited researchers can register for a number, ResearcherID is not yet used as a unique author key in the Web of Science — making it difficult to differentiate me from a highly cited ecologist from the Netherlands, despite the ‘Distinct Author Sets’ feature.

If it is possible to have DOIs for objects (or, so they say, enough IPv6 addresses for every molecule on Earth), why is it so difficult to implement DAIs for authors?

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Europe needs to protect its transgenic crop research

SIR — On 5 June 2008, our authorized, small-scale field trial of transgenic potato plants for nematode control was destroyed by people seeking to coerce government and society. It was one of only two trials authorized in the United Kingdom this year.

Our concern is that Directive 2001/18/EC, the European Union (EU) legislation that governs such trials, is confused. Although it recognizes the need for field releases at the research stage (clause 23), it does not distinguish between these and development-stage trials in its risk assessments. It has also set the legal precedent of providing precise locations of trial sites to vandals.

We have no evidence that the 400 transgenic plants we released posed any environmental concern, particularly when considered in the context of the annual UK potato crop of 8,000 million plants and their naturally hazardous glycoalkaloid content.

If EU governments cannot protect the trials they authorize, they should establish secure, vandal-proof national testing centres.

Unfortunately, a failure to distinguish a research trial from product-development trials seems to have blinded activists to the published, broader aims of our work. We develop controls for nematodes on subsistence crops in Africa and Asia, where both farmers and governments recognize the need for new technologies.

What is the distinction between burning university books 75 years ago and now destroying university research intended for publication in scientific journals? European governments must ensure that science in our universities can progress without coercion.

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