

# Correspondence

## Eavesdropping on researcher babble

I find that your Editorial on open-plan chatter rather misses the point (*Nature* 551, 542; 2017). In my experience, by far the most distracting external noise is a conversation about an interesting topic of research, particularly if it is sufficiently close to my own work that I have to listen. Even if it does not directly affect my research, it still commands my intense concentration and attention to details of data, mathematics, computer coding and logical development.

An occasional disturbance of this nature is acceptable, given that it can lead to cross-fertilization of knowledge and ideas. As head of a research group for almost 40 years, I have surreptitiously fostered just such a scheme by using a comfortable coffee area as a discussion platform with a blackboard to hand — and discreetly siting two more in the abutting corridors. **Volker Heine** *Cavendish Laboratory, Cambridge, UK.* [vh200@cam.ac.uk](mailto:vh200@cam.ac.uk)

## India and Pakistan against pollution

New Delhi in India and Lahore in the Punjab, Pakistan, are among the cities with the worst air quality in the world (data from AirVisual; <https://airvisual.com>). The Punjab government last month announced plans to combat toxic smog in the province (see [go.nature.com/2atvh29](https://go.nature.com/2atvh29)). In our view, a wider-ranging strategy is called for.

The state governments of Pakistan and India need to collaborate to tackle this transboundary environmental issue. They should put aside their differences to develop a joint comprehensive policy. As a first step, they must urgently invest in collecting reliable air-monitoring data together to better understand the risks to public health.

Pakistan and India face many



Open-plan spaces in London's Francis Crick Institute.

other environmental issues that cross their border. For example, in the climate index for 1997–2016, both were among the top 12 countries most likely to be affected by climate change (see [go.nature.com/2bfpztn](https://go.nature.com/2bfpztn)) and both experienced devastating heatwaves in 2015, with more than 1,600 deaths in Pakistan and 2,500 in India (see [go.nature.com/2jswgfr](https://go.nature.com/2jswgfr)).

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## Make AI training fair to farming

Artificial intelligence (AI) could marginalize under-represented knowledge bases and therefore slow our own progress if the inputs and parameters for scientific data are inadequate. We contend that AI in such contexts needs to be trained on diverse sources if it is to be representative.

Sustainable agriculture and other real-world challenges might lack the clearly defined rules and boundaries of domain-specific human information

needed to create knowledge through AI (see D. Silver *et al.* *Nature* 529, 484–489; 2016). To help close knowledge gaps and determine the fastest solutions, AI in such contexts needs to be trained in science, citizen science, indigenous knowledge systems (L. Etchart *Palgrave Commun.* 3, 17085; 2017), crowd-sourced volunteer data and conventional farming knowledge (C. Mancini *et al. Sci. Rep.* 7, 9120; 2017).

We could, for example, apply agro-ecological concepts through AI to find successful cultivation methods for the production of climate-resilient crops.

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## Checklist for AI to protect human rights

I should like to add another ethical priority to those proposed by Rafael Yuste and colleagues for practices involving neurotechnology and artificial intelligence (AI; *Nature* 551, 159–163; 2017). We must develop a

way to work out whether current activities and technologies could violate existing declarations that protect human rights and, if so, put a stop to them.

This governance framework might take the form of a set of practical guidelines or a checklist. It would enable corporations, research entities and individuals engaged in AI or neurotechnologies to self-regulate. One such approach could be for organizations to internally review their practices, portfolio and pipeline to identify and correct any potential for violation of human rights, for example. Compulsory self-declaration of compliance with the guidelines would then ensure transparency.

I think that uptake would be significant. When the existential concerns of what makes us human come into question, it is ethics and not product specifications that determine sustained success.

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## Parasites' rights gaining ground

You give examples of *Nature* publications in the physical sciences that make the reader “think very differently about a question” (*Nature* 551, 6; 2017). One such example from biology could be my letter calling for “equal rights for parasites” (*Nature* 348, 104; 1990).

A quarter of a century or so later, far from parasites being scourges that need to be eliminated, the idea that they should be conserved as important regulators of our biosphere is gaining momentum (see, for example, E. R. Dougherty *et al. Conserv. Biol.* 30, 724–733; 2016).

Unfortunately, at 83, I am too old to see how all this plays out. **Donald A. Windsor** *Ronin Institute, Norwich, New York, USA.* [donald.a.windsor@roninstitute.org](mailto:donald.a.windsor@roninstitute.org)