Correspondence

Social impacts of science metrics

Metrics used to gauge a researcher's productivity and importance to science can come at a social cost (J. Wilsdon *Nature* **523,** 129; 2015). Too often, such metrics are underpinned by values of questionable worth.

Any quantitative measure of productivity will reward people who choose to work long hours, build large research teams and minimize their commitments to teaching, review panels and university committees.

The use of such metrics can discourage people from sharing responsibilities and time with their partners or spouses, from investing in and enjoying their children's lives, and from participating in their local communities. Researchers can feel forced to sacrifice 'unproductive' recreational pursuits such as holidays, sport, music, art and reading — activities that other metrics correlate highly with creativity and quality of life (see also J. Overbaugh *Nature* **477,** 27–28; 2011).

We need a more nuanced approach to academic evaluations for hiring, promotion and tenure. The emphasis on quantitative measures of productivity places unfair burdens on scientists and their families, and it discourages some students from pursuing academic careers.

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Protect the young from e-cigarettes

Democratic state senator Mark Leno is to be commended for trying to sustain California's leading position in protecting young people from the harmful effects of tobacco and nicotine, in all its forms (see *Nature* **523,** 267; 2015). Contrary to industry claims, the use of electronic cigarettes is increasing among young people who have never smoked before (R. E. Bunnell *et al. Nicotine Tob. Res.* **17,** 228–35; 2015), and not just among adult smokers searching for a less harmful alternative to cigarettes.

Some e-cigarettes are designed to look like cigarettes, come in flavours that appeal to children and adolescents, and are promoted and sold in shops and pharmacies that are frequented by young people. Electronic cigarettes also deliver addictive nicotine; more research is needed on the safety of their other ingredients.

Until more is known about these largely unregulated products, legislation similar to the bill that failed in California should be widely introduced to keep e-cigarettes and other electronic nicotine-delivery devices out of the hands of young people.

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Support Nepal to rebuild sustainably

A government report on Nepal's earthquakes on 25 April and 12 May, which caused around 8,600 deaths and displaced at least 2.8 million people, rightly prioritizes the reconstruction of buildings and infrastructure (see go.nature.com/pdksq6). However, it overlooks the impact of large-scale restoration work on the fragile environment and imperilled ecosystems. The importance of this was learned from the extensive rebuilding in Aceh, Indonesia, after the 2004 Indian Ocean tsunami.

A report on rebuilding in Aceh recommended addressing environmental degradation early in the redesign process to limit potential damage during reconstruction, with a view to minimizing deforestation and exploitation of natural resources (see http://go.nature.com/xpaxju).

Likewise, the international aid community should support Nepal in using environmentally friendly reconstruction methods. The government must regulate the extraction of clay soil — in demand for producing trillions of fire bricks — because this can trigger landslides and erode fragile terrain. It should impose carbon-emissions standards on brick kilns and make them cleaner and more efficient, to cut pollution and wood consumption. (Deforestation has claimed around two-thirds of Nepal's natural forest in 30 years.) Controlling the excavation of gravel and sand from river beds would reduce the risk of diverting important currents, and would protect river ecosystems.

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Plant collections find strength in numbers

Preserved plant collections in the United States may be under threat (*Nature* **523,** 16; 2015), but there are grounds for optimism. Many herbaria, including those at our own institutions, are assembling digitized specimens in increasingly popular open databases. They are joining together to promote their value for research, teaching and other services, including the formal identification of species and to raise public awareness.

Online information from plant collections is attracting positive attention, especially among younger scientists. Student interest is opening the eyes of university administrators. And crowdsourcing is educating a wide range of individuals as they collect information for herbarium databases.

The Society of Herbarium Curators is an example of an international advocacy organization founded to preserve and promote endangered collections (www.herbariumcurators.org). Its regional networks reach out to groups that were previously under-represented in the botanical community, such as state and federal agencies, and schoolchildren and teachers.

The society is developing community standards of curation and is ensuring that herbaria are fully used and not orphaned by their institutions. We advise every herbarium director to become a member: our strength lies in numbers.

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High-rise buildings worsened heatwave

This summer's heatwave in Pakistan was the worst in more than 30 years, and caused the deaths of more than 1,200 people in Karachi alone. The city is an urban heat island that can reach temperatures up to 15 °C warmer than those of its rural surroundings. Urgent and fundamental reform of local governance is needed to protect the city's population of 22 million.

Despite the 2010 Sindh High Density Development Board Act, high-rise development in Karachi has continued unabated. Besides obstructing life-saving sea breezes, these developments compound the city's water and electricity shortages. Buildings are poorly ventilated and cheaply constructed from materials that are unable to cope with extreme temperatures.

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