

South America

Climate-change denier given top Brazilian science job

Brazilian president Dilma Rousseff has named an outspoken climate-change denier as head of the country's science ministry. Aldo Rebelo – who was previously Brazil's sports minister and has no scientific background – is a member of the Brazilian Communist Party and was also leader of the lower house of Congress between 2005 and 2007. He replaces Clélio Campolina Diniz, who had only been appointed early last year.

Rebelo's appointment has caused some concern among researchers in Brazil given his views on climate science. In 2010 he penned an open letter to environmentalist Márcio Santilli declaring that climate change is an “environmental scam”. He also stated that developed nations have a hidden agenda dedicated to halting the industrial development of booming economies such as China, India and Brazil, adding that the curbing of greenhouse-gas emissions is “nothing less, in its geopolitical essence, than the bridgehead of imperialism”.

Paulo Artaxo, an atmospheric physicist from the University of São Paulo, told *Folha de São Paulo* that the nomination of Rebelo is “concerning”. “His positions on climate change are completely out of phase



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Taking up position

Aldo Rebelo, who has served as Brazil's sports minister, has been appointed science minister by Brazilian president Dilma Rousseff.

with the Brazilian scientific community,” Artaxo notes. “We are expecting serious problems in several areas, such as the environment, biodiversity, climate change and forest protection.” Other researchers, however, do not seem overly concerned by Rebelo's stance. “I'd rather wait and see what Rebelo's next move will be,” climatologist José Marengo, from the Centre for Natural Disaster Monitoring and Alerts, told *Physics World*. “I wouldn't make predictions based on something he said five years ago.”

Marengo says that the key for Rebelo will be building a good team

within the science ministry. “Currently, many key roles are played by very respected scientists,” he says. “If Rebelo keeps it this way, things can work well.” Indeed, Rebelo has already met the leaders of the Brazilian Academy of Sciences and the Brazilian Society for the Progress of Science. He has also appointed biochemist Hernan Chaimovich from the University of São Paulo as president of the Brazilian National Council for Scientific and Technological Development. “Rebelo is starting to form a team composed of first-rank scientists, which will be good for Brazilian science, technology and innovation”, says Marengo.

Indeed, some scientists hope that Rebelo – who is known as an excellent negotiator – will put the science ministry in a position more relevant politically that could result in increased investment for science. “Although his past declarations are questionable, he is a skilful and experienced politician,” says Jean Ometto, from the National Institute for Space Research. “Having a ministry led by someone who knows the political game well might be advantageous.”

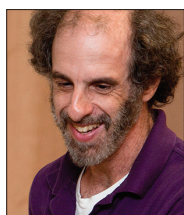
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Publishing

arXiv analysis lifts the lid on text reuse

An analysis of more than 20 years of submissions to the arXiv preprint server has revealed a surprisingly high amount of “text reuse” – a key indication of plagiarism. The analysis, led by Cornell University physicist Paul Ginsparg, who founded arXiv, also indicates that articles with reused text are typically cited less than those with none.

Ginsparg, together with his PhD student Daniel Citron, looked at about 757 000 articles that had been submitted to the server between 1991 and 2012. To detect text reuse, the authors used an algorithm that could spot if large blocks of text appear in more than one place on arXiv (*Proc. Natl Acad. Sci.* 112 25). After filtering out articles in which authors quote from a cited paper or reuse and slightly modify passages from their previous work, Ginsparg and Citron found that roughly one in 16 arXiv



Cornell

Worrying trend

An analysis of papers on arXiv, led by Paul Ginsparg, has shown a high amount of “text reuse”.

authors had copied significant amounts of material from their own work in papers that are supposed to be entirely new. Moreover, 0.1% of authors were discovered to have reused significant amounts of other authors' papers without even citing them.

“We infer that the practice of reusing text is uncommon and is restricted to a minority of serial offenders,” the authors write. To examine the effect of such “problematic” behaviour, Ginsparg and Citron studied the citation statistics for 116 490 articles that were posted on the site's astrophysics and high-energy physics category, finding that articles with a lot of unoriginal content are cited less frequently.

arXiv has had measures in place for more than 10 years to protect the site from plagiarized work. In June 2011, for example, the site started flagging

submissions with an “admin note” if there is an overlap of text with other arXiv articles. The system currently flags about 250 submissions per month, corresponding to just over 3% of new submissions daily. “It will be informative to repeat the analysis in a few years on the arXiv corpus to see whether the presence of flagging has a measurable behavioural effect, or whether it simply reinforces the current behavioural norm,” says Ginsparg.

Meanwhile, arXiv passed a major milestone late last year when it received its millionth paper. Having taken 17 years to reach half a million submissions, the server needed just over six years to double that number. It now receives roughly 80 000 new submissions per year.

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