The Republicans behind the proposal, who have formed what they call the Climate Leadership Council, briefed US President Donald Trump's staff on the idea last week, and called the response "encouraging". White House officials were less enthusiastic in their statements to the press, and there is no indication that the proposal is going anywhere anytime soon. Republicans on the House science committee spent the bulk of a hearing last week on the role of the US Environmental Protection Agency raising questions about climate science and the full suite of regulatory activities at the agency.

Nonetheless, there is plenty for conservatives to like in this proposal. Most importantly, it would scrap the patchwork of climate regulations that former president Barack Obama put in place, including complex rules intended to curb carbon pollution from new and existing power plants. Rather than regulating business behaviour from on high, the carbon tax would shift the economics to account for the dangers of greenhouse gases. Starting at US$40 per tonne of carbon dioxide and rising over time, the tax would hit coal users hardest, followed by oil and natural-gas users. Renewable energy sources and nuclear power would become more competitive. This would give the business sector a powerful incentive to switch fuels and invest in research and development that would drive clean-energy prices down even further.

The proposal also caters to the conservative mindset by ensuring that the carbon tax is revenue-neutral — meaning that it won't lead to an increase in revenue to be spent by 'big government'. An unrelated analysis of carbon tax options by the US Department of the Treasury, released in January, suggests that 70% of Americans — those at the lower end of the income spectrum — would actually benefit from such a framework, because they use less energy. Finally, the council's plan would address issues of international competitiveness by levying fees on imports from countries that do not have comparable policies.

Similarly, US businesses would receive rebates on carbon taxes they have paid when exporting to those countries. This would help to ensure that US businesses are not at a disadvantage — 'American first', in the Trump mindset — while encouraging other countries to act as well.

Economists have long preferred the carbon tax as a simple and efficient way of reducing emissions, but the idea has struggled to gain ground among policymakers. Australia instituted a carbon tax starting at roughly Aus$24 (US$18) per tonne of CO_2 in 2012, only to repeal it less than two years later. In Canada, British Columbia has a carbon tax of around Can$30 (US$23), and Alberta initiated a Can$20-per-tonne tax this year. But more often, governments have opted for a carbon-trading system such as that of the European Union. China is rolling out what could become the world's largest carbon-trading system this year. Such cap-and-trade systems provide more certainty because they set an upper limit on emissions, but they do not necessarily send a stronger signal to the business sector than does a carbon tax. The carbon price in Europe is currently below €4 (US$4.2) per tonne.

"A carbon tax would give the business sector a powerful incentive to switch fuels."

The Climate Leadership Council cites relevant studies to argue that its tax-and-dividend plan would do more to reduce greenhouse-gas emissions than Obama's regulations. That may well be true, because a comprehensive carbon tax would affect all sectors of the economy. Of course, the reason Obama took the regulatory route in the first place was that Republicans in Congress declined the Democrats' proposal for a national cap-and-trade system in 2009. Republicans have yet to make a counter offer, but this would be a good place to start — if and when they decide to face up to the risks posed by global warming. ∎

The dark side

Internet trolls seem impervious to any efforts to change their behaviour.

Some scientists peer into active volcanoes and try to read rocks. Others sift signals from space or analyse how animals behave. And then there are the cyber-ethnographers, who dedicate their careers to studying the way that people behave online. Some of these digital researchers must surely envy the 'peaceful' life of a volcanologist, for, as geologists like to say, one cannot argue with a rock.

Arguments rule the online world — witness the attention given this week to a Twitter row between Harry Potter author J. K. Rowling and journalist Piers Morgan. And although sometimes amusing, it doesn't take much for online banter to slip towards insults, harassment and worse. That is the grim domain of the Internet troll, and it's this murky online environment that brave cyber-ethnographers are now trying to study.

This May, it will be a full ten years since the abduction of three-year-old Madeleine McCann from her family's holiday villa in Portugal and the worldwide coverage that followed. Yet, a decade later, people on the Internet still swap 100 messages or so an hour about the case. Many of these accuse and insult her traumatized parents, celebrating their daughter's disappearance and gloating over their misery.

Such people are among the basest and most antisocial Internet trolls, and in a paper in *Computers in Human Behaviour*, psychologists describe how they tried to engage with this troll community, to study their attitudes and behaviour, and to work out what makes them tick (J. Synnott *et al. Comput. Hum. Behav.* **71,** 70e78; 2017). Their research put them in the cross-hairs for several weeks, and the trolls did not disappoint. Once the goal of their study was exposed by others in the anti-McCann community, "you need better English to do a PHD luv!" was among the more polite messages sent in response to questions from "the psychology student studying trolls".

Things got heated when the scientists tried to introduce some science into the debate. Much of the suspicion towards the McCann family was generated by a claim from the Portuguese police that sniffer dogs had found evidence of a cadaver in their holiday apartment (no charges were brought). When one of the psychologists posted a reference to an academic paper showing that such dogs made frequent mistakes in hot weather, and invited discussion, the trolls were more interested in insults and attacks on the researcher's motive, labelling them a "shill" and blocking them when they tried to steer conversations back to the findings.

Previous research on trolls has identified key phrases that act as calling cards and draw activity. In this study, the word 'shill' — meaning that the researcher was paid by the McCann family to protect its reputation — was a red rag, and led to more and more trolls circling the discussion and piling in.

What can we learn from the study? One powerful theme of the anti-McCann messages is motherhood — and how the trolls argue that they would have behaved differently, both before and after the abduction. Psychologists call this disassociation, and it could arise from an irrational belief that parents who explicitly distance themselves from the plight of the McCann family somehow keep their own children safer. But there were much nastier motives on show, too: although most of the trolls argued that they were fighting for justice, the researchers conclude that this was thin cover for being able to hurl insults anonymously.

There are two other notable points. First, most of the abusive and offensive messages sent and received were against the rules of the social-media provider, yet no action was taken. And second, to 'not feed the trolls' has little impact. They are cultural scavengers who feast on alternative facts and false news already in the system, and thrive on condemnation. Rocks are so much easier to deal with. ∎