

TOO MUCH TRAVELLING IN SCIENCE



Hong Kong's airport. Photo by "countries in colors" via flickr.

Conferences are a crucial part of science, because they offer scientists a platform to discuss their latest research results, exchange ideas for future research, and initiate scientific collaborations.

The benefit to attending conferences, along with reduced travel costs, has led to an ever increasing amount of travelling, with sometimes crazy implications. At a large international conference in Singapore earlier this year I met a European researcher who flew in for one day only. And so did a colleague of his from Japan. Another researcher once told me he travels to 27 meetings a year, which is perhaps not even that unusual.

Such trips may not be limited to conferences, administrative trips can be even more frequent. Some Chinese professors fly from the provinces to Beijing for grant reviews and other administrative business about every two weeks, if not more often. I suppose it is the same elsewhere, although Japanese and European researchers have the advantage that in most cases they can use trains.

Of course, these are just personal anecdotes. So let's consider the travelling involved for a larger international conference attended by about 5,000 researchers, as they exist for pretty much all major research fields. Let's further assume that on average the participants live about 2,500 kilometres (1,500 miles) away from the conference. That's 25 million kilometres flown in total. An airplane uses about 3 litres of fuel to fly a passenger for 100 kilometres. This means that 750,000 litres of fuel (200,000 US gallons) will be consumed to fly researchers to the conference alone. To move those 750,000 litres around by the way would require about 30 large tank trucks. And in terms of CO₂ emissions, well, it's an estimated 2825 tons.

That's for a single major conference only. There are numerous workshops, symposia and the like organised very year. My question is, are they really all necessary? A conference should not be organised to foster someone's ego, or the prestige of a university to hold a meeting.

I know that sometimes it can be difficult for some professors to say no to a colleague organising a small meeting, but the system has reached a stage where clearly scientists need to be more selective in their travels. Surely, attending a conference for a day and giving a talk to a lacklustre session of maybe 20 to 25 attendants should not in itself justify 10,000 kilometres of travelling?

As for myself, well, this year I travelled almost once a month on business, with six of these trips involving long intercontinental flights. So I wasn't that successful either to curb my travels either, despite of the fact that I also declined my fair share of invites. I will again try to be selective for next year, although when I do travel, I usually try to make the best of it, staying longer in one place, visiting local universities.

And of course, I don't think scientific conferences should be abolished. Far from it. I do believe that conferences are an important part of science, and this will be the case also in future. To emphasize this, I should also say that I am also co-organising a conference for next year, as part of the *Nature Conferences* series. There, we try to maximize value by getting some of the best scientists in a field together for a couple of days of intense discussions, because the interactive component is what adds value to a conference. In other words, we try our best to make the travel worthwhile.

Indeed, each conference organiser should be considering whether the expected value of a meeting, its outcome, really justifies a conference in the first place. And for some of the larger meetings it might be worth considering whether to stream conference talks onto the internet, so that more researchers can listen to sessions without having to travel. Questions then could be forwarded to the speakers via social networks.

The conference system as a whole certainly will need to see some changes, as the present situation hardly is sustainable. We all need to be more responsible in the use of natural resources.

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