

Vaster, hotter, grainier

The Olympic Games are the world's largest competitive sporting event. The first modern games, held in Athens in 1896, attracted fewer than 50 athletes from outside Greece and were watched by a local audience numbering only in the thousands. Today, the summer and winter games are a global media extravaganza, involving over 10,000 competitors, and they are watched by millions of spectators from around the globe. But the Olympics are no longer just about sport. The worldwide coverage has hugely enhanced the value of the Olympic brand, channelling such massive sponsorship into the event that a visitor from another planet might be forgiven for thinking that they were really a celebration of commerce, not athletic prowess. The Games also provide a major opportunity for the host city and nation to display the virtues of their social and political system, an aspect that has proven highly controversial on some occasions.

Although the Games' legacy has not always been positive—the deficit from Athens 2004 may have significantly contributed to the Greek debt crisis—the brand has spawned valuable spin-offs. The Paralympic Games promote the rights of disabled people and social inclusiveness more generally. The Cultural Olympiad, which London 2012 claims will represent the biggest arts festival ever staged, is an opportunity for thousands of performers, artists and organizations to showcase their work to millions of potential 'consumers'. In de Coubertin's original 'Pentathlon of the Muses', artists competed for medals. But today, this has been replaced by mass participation both on the ground and through digital media, as pioneered at Vancouver 2010. Even the ancient idea of the Olympic Truce has been revived, although has yet to gain much traction.

In all this, something is missing: science. One might cynically argue that science has already become a competitive sport riven

by commercial interests, and any association with the Olympic brand could only make matters worse. However, science is in serious need of public support. The attention provided to the arts and to the rights of minorities by the Cultural Olympiad and the Paralympics is extremely valuable, both in shaping social attitudes, and in raw financial terms.

National or regional events, such as the American Association for the Advancement of Science (AAAS) Meeting, the Cambridge Science Festival and the European Open Science Forum (ESOF) already provide platforms for the dissemination and public discussion of science and the issues it raises, and represent a workable template for adding a scientific dimension to the Olympics, but with global reach. In fact, there is already a World Science Forum, convened most recently in Budapest in November 2011, and the World Science Festival, which is held annually in New York. One might ask whether adding a science Olympiad to these already successful and productive events would make sense. But the same question could be asked about virtually any spectator sport, or about the visual and performing arts, which are presented in many events, ranging from the local to the global, in addition to the Olympics. The answer is simple. Given the worldwide attention that the Games attracts, an Olympic focus could ignite major worldwide interest in science, foster a better understanding of what scientists actually do and motivate many more bright youngsters to study science and consider it as a career.

The ethos of science also closely mirrors the original ideals of the Olympic movement. It requires a combination of teamwork and individual talent, dedication and training. All those who participate in the Olympics are motivated not only by the dream of realizing a significant, personal achievement, but also by the knowledge that they are representing and serving humanity.

Science knows no international boundaries, but respects rules of procedure and fair-play, just like any competitive sport.

How and by whom would a scientific Olympiad best be organized? Rather than creating yet another bureaucratically top-heavy international body, I'd prefer to see us agree on an *ad hoc* system, whereby the scientists of each host nation in turn would get together in association with the local Olympic Organizing Committee, on which they should also be represented. In collaboration with colleagues from other countries, perhaps specifically those hosting the previous and following summer and winter Olympics, they could design their own programme, playing to the strengths and needs of their own country, but involving partners from across the globe. Leading scientists, students, science journalists and media organizations could all be involved.

The events need not be focused on a single city and just the two-week window of the Games. Similar to the happenings of the Cultural Olympiad, they could be spaced out over the whole territory of the host nation and the entire year, with funding from public subscriptions, foundations, commercial sponsorship and government agencies, as appropriate. Universities and research organizations could and should also contribute both financially and materially. A programme of exhibitions, public lectures and demonstrations, diverse forums bringing together practitioners, teachers and users of scientific knowledge, and making maximum use of social networks and other digital media, could have a huge impact and would cost far less than a typical sports stadium.

The 2016 Olympics will take place in Rio, in a country poised to become a major player in the global economy and a leading contributor to science. It would be a great place to start this endeavour.

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