

States is the only democracy that has risen to the challenge, and remarkable though its achievement in this sphere has been, it has left an ambivalent legacy.

The Apollo programme was politically sustainable because it resonated with various aspects of America's self-image as a nation that is technologically peerless, internationally exceptional and defined by the notion of frontiers. These resonances persist today. Few Americans are passionately devoted to the space programme, but many think of it, on the occasions they have cause to, with affection. Given the great cost of its limited benefits, this popular support seems a touch perverse.

For any US president, the political cost of being the person who abandons the dream of space flight outweighs the financial cost of "keeping the dream alive" (the term under which this sort of support for the aerospace establishment is invariably masked). At the same time, the financial costs that would have to be borne in order dramatically to expand the role of astronauts in space exploration are seen as outweighing any possible political rewards from such an expansion. So there is a compromise: the United States is left with an extraordinarily expensive and simultaneously rather unambitious

programme, the main purpose of which is its own continuation.

This may not be a very good deal for US taxpayers, but it does have benefits for the world at large. It means that human presence in orbit, a largely symbolic matter, is not restricted to the citizens of one-party states (China) and their cash-strapped successors (Russia, a country which in terms of gross domestic product per capita ranks between Chile and Malaysia). It is good to know that, if there are men and women beyond Earth, some of them should be from democracies. But unless the US political landscape undergoes a radical shift, that will remain the case whatever Europe does, and it is hard to see what extra value is to be gained by any other democracies deciding to join in the venture. There are better ways to convince the world of your technological prowess.

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Wiki's wild world

Researchers should read Wikipedia cautiously and amend it enthusiastically.

Sometimes the stupid-sounding ideas turn out to be the ones that take off. Almost five years ago, a free online encyclopaedia known as Wikipedia was launched. To those familiar with the peer-review process, the premise behind the new publication seemed crazy: any user, regardless of expertise, can edit the entries. It sounded like a method for creating garbled and inaccurate articles, and many critics said so.

Fast-forward to 2005, and some of that criticism is looking misplaced. Wikipedia is now a huge reference source, with something approaching a million articles in the English version alone. It's true that many of its entries are confusing and badly structured; some of them are badly wrong, and sometimes the errors are deliberate. After the discovery of an outrageously false description of John Seigenthaler, a former editor of *The Tennessean* newspaper, Wikipedia's publishers introduced registration in an attempt to discourage (though it cannot prevent) "impulsive vandalism".

But as an investigation on page 900 of this issue shows, the accuracy of science in Wikipedia is surprisingly good: the number of errors in a typical Wikipedia science article is not substantially more than in Encyclopaedia Britannica, often considered the gold-standard entry-level reference work. That crazy idea is starting to look anything but stupid.

So can Wikipedia move up a gear and match the quality of rival reference works? Imagine the result if it did: a comprehensive, accurate and up-to-date reference work that can be accessed free from Manhattan to rural Mongolia. To achieve this, Wikipedia's administrators will have to tackle everything from future funding problems — the site is maintained by public donations — to doubts about

whether enough new contributors can be found to increase the quality of the mushrooming number of entries. That latter point is critical, and here scientists can make a difference.

Judging by a survey of *Nature* authors, conducted in parallel with the accuracy investigation, only a small percentage of scientists currently contribute to Wikipedia. Yet when they do, they can make a significant difference. Wikipedia's non-expert contributors are, by and large, dedicated to getting things right on the site. But scientists can bring a critical eye to entries on subjects they study, often highlighting errors and misunderstandings that others have unintentionally introduced. They can also start entries on topics that other users may not want to tackle. It is no surprise, for example, that the entry on 'spin density wave' was originated by a physicist.

Editing pages is not always straightforward, as some users may disagree with changes. In politically sensitive areas such as climate change, researchers have had to do battle with sceptics pushing an editorial line that is out of kilter with mainstream scientific thinking. But this usually requires no more than a little patience. Wikipedia's users are generally interested in the reasoning behind proposed changes to articles. Backing up a claim with a peer-reviewed reference, for example, makes a world of difference.

Nature would like to encourage its readers to help. The idea is not to seek a replacement for established sources such as the Encyclopaedia Britannica, but to push forward the grand experiment that is Wikipedia, and to see how much it can improve. Select a topic close to your work and look it up on Wikipedia. If the entry contains errors or important omissions, dive in and help fix them. It need not take too long. And imagine the pay-off: you could be one of the people who helped turn an apparently stupid idea into a free, high-quality global resource. ■

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