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The expanding electronic universe

Spooks, like scientists, need to keep an eye on the future. So when a veteran researcher at the CIA extols the virtues of the latest tools on the Internet, it is worth tapping in to his thoughts. Calvin Andrus, head of the CIA's unit for collaboration technologies, set out his stall in September's *Studies in Intelligence* with a paper entitled "The wiki and the blog: toward a complex adaptive intelligence community". Intelligence officers, he argues, should have access both to online (although obviously restricted) blogs on which they can record their experiences and insights, and to wikis — websites that can be edited by a community. Such tools could transform the responsiveness of the intelligence community, helping isolated officers to comment on each other's ideas and to collate rapidly breaking data and information.

This week's News Features look at what wikis, blogs and other technologies may mean for the future of scientific communication beyond the confines of scientific journals. These tools offer fresh opportunities both before publication, when people are debating ideas and hypotheses, and after, when they are finding and discussing published results. They also provide scientists with exciting new possibilities for communicating with policy-makers and the public.

Our opening Feature on scientific blogs and wikis finds that scientists are lagging behind other communities, including the commercial sector, in seizing these opportunities. Young scientists are often reluctant to express their thoughts online out of fear that it is somehow inappropriate, or even possibly damaging to their careers.

Another worry is that new technologies bring the threat of information overload. Some of the tools we highlight here offer hope on this score, whether through better filtering or improved searching. Academic librarians are keeping a close eye on the development of search engines, such as Google Scholar; some are even blogging about it (http://acrlblog.org). But the technological idea that is most likely to land them in hot water is the growth of digital libraries.

University libraries that have signed up to digital scanning projects, such as Google Book Search, are finding themselves in the uncomfortable position of leading the revolution. This suggests that they have a vision for their future, something readers who want to discover new works and read books in new ways will welcome. But they may have some explaining to do to publishers, including their own university presses, and to authors who are gearing up for a legal battle with the search giant.

A fair number of these possibilities will no doubt fail to bear fruit, either nobly — by losing out to even better ideas and technologies — or ignobly, held back by the scientific establishment's cultural resistance. Some, however, will surely thrive. As Andrus puts it: "For every ninety-nine mediocre ideas, there will likely only be one brilliant idea. The few brilliant ideas, however, are worth the investment of many mediocre (and chaotic) ones…The few brilliant ideas will survive in the market place of ideas."

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