Balkanization by Internet?

Marshall Van Alstyne and Erik Brynjolfsson, in their article "Could the Internet Balkanize science?" (29 Nov., p. 1479), warn the scientific community against the fragmentation of research as a consequence of overfocusing and narrowing interactions in the global communication networks, because of the abundance and the low quality of online information. But Web sites providing high-quality, professional-level, research news [http://www.eurekalert.org/ (31 May, p. 1366) and http://www2.nas.edu/new/index.html] have now been developed. Might they favor interdisciplinary knowledge and interactions and prevent the Balkanization of science?

Massimo Battaglia
Istituto di Medicina Sperimentale, Consiglio Nazionale delle Ricerche, Viale Marx 15, 00137 Rome, Italy
E-mail: mbatt@biocell.irmkant.rm.cnr.it

Echoing Karl Popper, we should hope to promote, in all areas of scholarship and research, good work on important "problems." Unfortunately, this hope contains the seeds of a difficulty—"good" conventionally implies "based on a sound mastery of relevant subject matter and skills."

The effort invested in acquiring knowledge and skills, facilitated by both innate and external resources (talent, temperament, and character; economic means and circumstances), leads the acquirers to focus on maximizing the return on their investment, which subsequently leads them to turn away from a primary focus on problems whose connections with other problems cross specialty boundaries. The formulation of new problems tends to be biased in the same way.

Ultimately, this can lead to stagnation, triviality, and a sort of empty fecundity. The "production of knowledge" can become merely an industry, in which participants pursue nothing but the cultivation of expertise, reputation, and career advancement.

The Internet has great potential power to manage this difficulty, if people are prepared to accept its significance and take precautions against their own complacency. An important first step would be to move the notion of a "problem," as opposed to the more neutral (even vacuous) notion of a "topic," to the forefront in the high-level design of the Internet as a medium for distributing and storing knowledge. This guarantees nothing, but it could offer a better framework for critical discussion of the motivations of research, which in turn could lead to the fruitful clarification and restatement of problems.

Christopher Weed
82 Hungerford Terrace, Burlington, VT 05401–3842, USA
E-mail: 102553.1205@compuserve.com

Corrections and Clarifications

The third sentence of James Glanz's News & Comment article "Turbulance may sink titanic reactor" (6 Dec., p. 1600) should have begun, "The fields would cage deuterium and tritium ions at hundreds of millions of degrees. . . ."

Letters to the Editor

Letters may be submitted by e-mail (at science_letters@aaas.org), fax (202-789-4669), or regular mail (*Science*, 1200 New York Avenue, NW, Washington, DC 20005, USA). Letters are not routinely acknowledged. Full addresses, signatures, and daytime phone numbers should be included. Letters should be brief (300 words or less) and may be edited for reasons of clarity or space. They may appear in print and/or on the World Wide Web. Letter writers are not consulted before publication.