

Proposal for Presentation
The Network Services Conference (NSC)
London, England, 28-30 November 1994
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Title of presentation:

PUBLICLY RETRIEVABLE FTP ARCHIVES FOR ESOTERIC SCIENCE AND SCHOLARSHIP: A SUBVERSIVE PROPOSAL

Abstract:

We have heard many predictions about the demise of paper publishing, but life is short and the inevitable day still seems a long way off.

This is a subversive proposal that could radically hasten that day. It is applicable only to ESOTERIC (non-trade, no-market) scientific and scholarly publication (but that is the lion's share of the academic corpus anyway), namely, that body of work for which the author does not and never has expected to SELL his words. He wants only to PUBLISH them, that is, to reach the eyes of his peers, his fellow esoteric scientists and scholars the world over, so that they can build on one another's work in that collaborative enterprise called learned inquiry.

For centuries, it was only out of reluctant necessity that authors of esoteric publications made the Faustian bargain to allow a price-tag to be erected as a barrier between their work and its (tiny) intended readership because that was the only way to make their work public in the era when paper publication (and its substantial real expenses) were the only way to do so. But today there is another way, and that is PUBLIC FTP: If every esoteric author in the world this very day established a globally accessible local ftp archive for every piece of esoteric writing he did from this day forward, the long-heralded transition from paper publication to purely electronic publication (of esoteric research) would follow suit almost immediately.

The only two factors blocking it at the moment are (1) quality control (i.e., peer review and editing), which happen to be implemented today almost exclusively by paper publishers and (2) the patina of paper publishing, which results from this monopoly on quality control. If all scholars' preprints were universally available to all scholars by anonymous ftp (and gopher, and World-wide web, and the search/retrieval wonders of the future), NO scholar would ever consent to WITHDRAW that preprint from the public eye after the refereed version was accepted for paper "PUBLICATION." Instead, everyone would, quite naturally, substitute the refereed, published reprint for the unrefereed preprint. Paper publishers will then either restructure themselves (with the cooperation of the scholarly community) so as to arrange for the minimal true costs and a fair return on electronic-only page costs (which I estimate to be less than 25% of paper-page costs, contrary to the 75% figure that appears in most current publishers' estimates) to be paid out of advance subsidies (from authors' page charges, learned society dues, university publication budgets and/or governmental publication subsidies) or they will have to watch as the peer community spawns a brand new generation of electronic-only publishers who will. The subversion will be complete, because the (esoteric -- no-market) literature will have taken to the airwaves, where it always belonged, and those airwaves will be free (to the benefit of us all) because their true minimal expenses will be covered the optimal way for the unimpeded flow of esoteric knowledge to all: In advance.

Biographical sketch (5-15 lines):

Stevan Harnad, Professor of Psychology and Director of the Cognitive Sciences Centre at University of Southampton UK, was born in Budapest, Hungary, grew up in Montreal, Canada, did his undergraduate work at McGill University and his Doctorate at Princeton University (in cognitive psychology). His research is on categorization and neural networks and on perception, cognition and language in general, on which he has written numerous articles and edited and contributed to several books. A further interest is "Scholarly Skywriting," a form of interactive electronic publication and communication that he has been actively involved in exploring and developing, and on which he has written several articles. He is Founder and Editor of two refereed journals, Behavioral and Brain Sciences and PSYCOLOQUY, the first paper (published by Cambridge University Press since 1978) and the second electronic (sponsored by the American Psychological Association since 1990).

The following files are retrievable from directory pub/harnad/Harnad on host princeton.edu (citation is followed by FILENAME and, where available, ABSTRACT):

Harnad, S. (1990) Scholarly Skywriting and the Prepublication Continuum of Scientific Inquiry. *Psychological Science* 1: 342 - 343 (reprinted in *Current Contents* 45: 9-13, November 11 1991). FILENAME: harnad90.skywriting

Harnad, S. (1991) Post-Gutenberg Galaxy: The Fourth Revolution in the Means of Production of Knowledge. *Public-Access Computer Systems Review* 2 (1): 39 - 53 (also reprinted in *PACS Annual Review Volume 2* 1992; and in R. D. Mason (ed.) *Computer Conferencing: The Last Word*. Beach Holme Publishers, 1992; and in A. L. Okerson (ed.) *Directory of Electronic Journals, Newsletters, and Academic Discussion Lists*, 2nd edition. Washington, DC, Association of Research Libraries, Office of Scientific & Academic Publishing, 1992). FILENAME: harnad91.postgutenberg

Harnad, S. (1992) Interactive Publication: Extending the American Physical Society's Discipline-Specific Model for Electronic Publishing. *Serials Review, Special Issue on Economics Models for Electronic Publishing*, pp. 58 - 61. FILENAME: harnad92.interactivpub

Harnad, S. (1994) Implementing Peer Review on the Net: Scientific Quality Control in Scholarly Electronic Journals. *Proceedings of International Conference on Refereed Electronic Journals: Towards a Consortium for Networked Publications*. University of Manitoba, Winnipeg 1-2 October 1993 (in press) FILENAME: harnad94.peer.review

ABSTRACT: Electronic networks have made it possible for scholarly periodical publishing to shift from a trade model, in which the author sells his words through the mediation of the expensive and inefficient technology of paper, to a collaborative model, in which the much lower real costs and much broader reach of purely electronic publication are subsidized in advance, by universities, libraries, and the scholarly societies in each specialty. To take advantage of this, paper publishing's traditional quality control mechanism, peer review, will have to be implemented on the Net, thereby recreating the hierarchies of journals that allow authors, readers, and promotion committees to calibrate their judgments rationally -- or as rationally as traditional peer review ever allowed them to do it. The Net also offers the possibility of implementing peer review more efficiently and equitably, and of supplementing it with what is the Net's real revolutionary dimension: interactive publication in the form of open peer commentary on published work. Most of this "scholarly skywriting" likewise needs to be constrained by peer review, but there is room on the Net for unrefereed discussion too, both in high-level peer discussion forums to which only qualified specialists in a given field have read/write access and in the general electronic vanity press.

Hayes, P., Harnad, S., Perlis, D. & Block, N. (1992) Virtual Symposium on the Virtual Mind. *Minds and Machines* 2 (3) 217-238. FILENAME: harnad92.virtualmind

ABSTRACT: When certain formal symbol systems (e.g., computer programs) are implemented as dynamic physical symbol systems (e.g., when they are run on a computer) their activity can be interpreted at higher levels (e.g., binary code can be interpreted as LISP, LISP code can be interpreted as English, and English can be interpreted as a meaningful conversation). These higher levels of interpretability are called "virtual" systems. If such a virtual system is interpretable as if it had a mind, is such a "virtual mind" real? This is the question addressed in this "virtual" symposium, originally conducted electronically among four cognitive scientists: Donald Perlis, a computer scientist, argues that according to the computationalist thesis, virtual minds are real and hence Searle's Chinese Room Argument fails, because if Searle memorized and executed a program that could pass the Turing Test in Chinese he would have a second, virtual, Chinese-understanding mind of which he was unaware (as in multiple personality). Stevan Harnad, a psychologist, argues that Searle's Argument is valid, virtual minds are just hermeneutic overinterpretations, and symbols must be grounded in the real world of objects, not just the virtual world of interpretations. Computer scientist Patrick Hayes argues that Searle's Argument fails, but because Searle does not really implement the program: A real implementation must not be homuncular but mindless and mechanical, like a computer. Only then can it give rise to a mind at the virtual level. Philosopher Ned Block suggests that there is no reason a mindful implementation would not be a real one.