



HAL
open science

Are cyberjournals a promised land for researchers?

Denise Pumain

► **To cite this version:**

Denise Pumain. Are cyberjournals a promised land for researchers?. Environment and Planning A, 1997, 6, pp.951-954. 10.1068/a290951 . halshs-01625353

HAL Id: halshs-01625353

<https://shs.hal.science/halshs-01625353>

Submitted on 27 Oct 2017

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Are cyberjournals a promised land for research communication ?

Denise Pumain

Since April 1996 an electronic journal devoted to geography is available on Internet. This is a part of the mushrooming development of the "cyber"planet. Probably invented by Norbert Wiener in 1945, the word "cybernetics" had only a few descendants who confined themselves to the imaginative spheres of science-fiction literature during the sixties with the famous cyborg anticipated by Issac Asimov (1980) and then adventured towards popular mystery stories and their private detective chasing nasty cybernautes throughout cyberspace (coming to cyberpunk with William Gibson, 1984, after Alfred Bester, 1953). From cyberbang to cybercash, haunting the cyber cafés, the (cyber)generation of new cyberconcepts seems innumerable today : why not a journal called *Cybergeo* then ?

To our knowledge *Cybergeo* is the first electronic journal for geography (table 1). But it should not remain for long an isolated initiative. Sooner or later, new electronic journals will appear, or, as already practiced in other fields (like in mathematics or statistics) traditional journals will propose an electronic version besides their normal printed issues. Nobody can predict at the moment whether this conversion to a new medium will become a total substitution or remain an optional or partial solution for scientific communication. However, as exemplified by Batty and Barr (1994) the trend in the evolution of the number of connections and services offered on the World Wide Web using the Internet network throughout the world has become exponential. It is most probable that the number of electronic journals will in the near future follow the same irrepressible and multiplication development.

As always when technical inventions are concerned, it is very difficult to anticipate about what would be their final use and their real destination when they become a socially accepted innovation. Historians of the communication networks especially have shown how broad the gap was between the expectations of the pioneers of early networks and the ultimate realisations in the use of the technology. From their work it is now well known that the first aeroplanes were thought of as gadgets without any future and that the main function devoted to the telephone was the distant retransmission of public concerts (Offner, 1994).

The same kind of hesitation has to be accepted when trying to configurate which model of communication between researchers an electronic journal could and should promote. Two alternative opposite scenarios can be imagined. The first one, idealistic, emphasizes the technical advantages of the new medium, which could help solving some of the difficulties encountered in research communication today. The second one, probably more realistic, relies upon what is already happening in other sectors of communication for anticipating further developments.

1 - Dreams of a new world.

One of the main difficulty in social sciences today is to cope with the exponential development of scientific litterature. The trend is common to all sciences but the problem is perhaps more accurate in social sciences where it is difficult to decide which part of the written source material has become obsolete or irrelevant, where excessive specialisation is neither well admitted nor actually fruitful and where norms of scientific publications have not yet been - and probably cannot be well - established. Confronted to that inflation of pages to read, researchers develop various strategies for getting the best out of their limited amount of reading time (Berry, 1995) but the problem remains largely unsolved. Keeping well informed about the essentials of contemporary publications in one's own domain of research has become an almost impossible challenge, not speaking of what is happening in other fields of knowledge, as recently severely experimented by the editors of a journal in social science which was mystified by a physicist's hoax, mischievously reported at length by the newspapers.

So let us dream about the possible improvements which could be brought in this situation by an electronic journal.

- Shortening the delays in publication.

First, compared to traditional journals printed on paper, both the editing and the publishing process may be considerably shortened. As soon as a paper has been submitted, it may be sent by Electronic mail quicker than by traditional post to referees in various parts of

the world. Did you ever try to compare the impact of a letter, a fac simile and an E.mail ? Normally, answers to queries come back sooner while using the third medium (impossible to say yet if this is a momentarily effet of novelty or if it is definitely linked to the technical capacity and psychological perception of the necessary instantaneity or at least high speed in communication associated with electronic mail). So as long as referees ar not oversnowed by papers to read they may give a quicker answer. Once their advice has been taken into consideration, as soon as the last version of the paper is ready, it can be immediately put on line, without waiting sometimes for several months, for free space being available in one of the next issues of the journal. Electronic journals, at least those which are not simply a secondary version of a traditional publication, are not made of regular semestrial or bi-monthly issues. Each paper may be considered as a numbered issue and may appear at any times.

To which extent, this tending towards "just in time" production of scientific litterature could be an argument in favour of a better collective management of publications, how can it contribute to a reduction in excessive supply ? It could be at first thought of as a supplementary factor of inflation. But it could as well be hypothesized that once the delay for publication becomes shorter than the time which is necessary for preparing a paper, the authors will consider devoting much time and care to this preparation, because of the immediacy of the reaction/sanction they may expect from their readers.

- Revising old texts instead of writing more new papers

Taking fully advantage of the virtuality of the eelectronic support implies that, however carefully prepared and controlled, a paper can be modified and improved at any moment. This does not mean that provisional approximate versions of papers only should be submitted to electronic journals ! But the technology allows for a never experimented easiness and instantaneity of reaction from any reader : all the person has to do is clicking on the author's (or editor's) name and the message will be all at once transmitted to the author. Such a broad and ex-post "referring" process was not imaginable as long as journals were printed on paper, and possible corrections via errata or discussions and commentaries in following issues were a difficult, lengthy and somehow awkward exercise. Instead of

remaining rare and mainly often a matter of polemics, such reactions to a published paper may now become the normal (a more normal) way of developing communication about research.

Receiving those reactions, the author may ask the editor for an immediate revision/improvement of his/her paper, correcting mistakes, adding a missing important reference, altering a paragraph for avoiding a misunderstanding or integrating a useful aspect he/she had not mentioned. Of course original versions of the paper can be electronically archived for the sake of future historians of the discipline, when significant changes are decided. But this could save lots of efforts in rewriting slightly differently full papers each time an author gets a new result or adds a new idea to a formerly developed domain of knowledge.

Dreaming a little further one could imagine, while pushing this process to its logical end, the life-long labour of a researcher all expressed in one single article (well, let's say one book) where he/she would from time to time alter a sentence, change a paragraph, add an argument or modify a definition... That would greatly help in solving the scientific inflationist literature crisis...

- Improving communication diffusion

One major problem which is together caused by and reinforcing the inflation in scientific information supply is the obligation for a researcher to publish the same results or ideas under slightly different versions in several different journals. This is not only a way for ensuring the required length to the publication's list any academic is supposed to be frantically enlarging and updating, as a perverse effect of some badly conceived research's evaluation or funding systems, but it is a trivial necessity stemming from the actual state of our scientific communication. The number of available publications is so wide that if you expect your work being acknowledged by the dozen of readers who are reasonably likely to be encline to share your subject of interest, you have to write about ten times the same paper in all the journals they are supposed to go through. With modern word-processing greatly facilitating the process thanks to copy and paste functions, this is a major factor explaining how the inflative process is self-sustaining.

Now just imagine that the paper you have carefully polished in order to reach the largest qualified audience will automatically appear on the screen of every reader having shown an interest, not only in the journal they are actually browsing, but also in any of the key-words you choose to hook it on. This is made possible through the multiple electronic reference systems which may connect the journal to other publications and to specialised bibliographical lists from various disciplines and fields of interest, transforming the hassle of bibliographic research into a paradisiac children game (incidentally, admire the paradox in the metaphor which will substitute, to the stunted image of a « bookworm » covered with dust and exhausted from picking old too heavy books on too high shelves, the more sportive notion of a « library net surfer » though comfortably installed in an armchair in front of a screen). So you are ensured that your paper will become accessible to people who are interested in your theme but would never have opened any issue of the specialised journal you first wrote in. You have no longer any reason for trying to reach via multiple versions of your paper in various journals the audience of sociologists, archaeologists, regional scientists or statisticians...

- Making accumulated knowledge more readily available

The electronic support offers an inestimable opportunity for a more conscious collective exercise in the patient edification of what A. Moles used to call "The wall of science" (1995). As soon as various state-of-the-art papers, dictionaries, note books... are put on line, they may be submitted to open discussion and could be revised under this process of constructive criticism. This is not a plea for an arbitrary or unrealistic consensus about what geographical knowledge should be, but a claim for a possible clarification in what is generally accepted and what remains controversial.

Besides electronic journals, related « newsgroups » are new communication means which could be fruitfully used for such purposes. A simple registration permits to anybody to post answer and to join discussion, whereas a person acting as a moderator periodically synthesises the results of discussions. Compared to the often restricted opportunities for discussion during colloquiums, they offer an unlimited and democratic access to exchange of

ideas and suggestions. If not pervaded by tentatives of propaganda, or advertisement, or simple selfish queries, such newsgroups may become an incomparable tool for raising the general level of mutual knowledge among researchers and contributing to the advancement of science.

2 A more realistic (but sad) scenario

The above suggestions for a still competitive and challenging but more collectively constructive and controlled development of research communication may appear as an idealistic tentative for making the best possible use of the technological opportunities brought by electronic networks. At least, the more lazy or hurried or efficiency-addicted or (incorrigible) positivists among us may think so. Besides, as widely demonstrated in other fields of activity, the use of Internet also offers plenty of room for fantasy, creative and personal expression, unrestricted individual initiative and insidiously percolating commercials. For whatever's sake trying to put any order in such a jolly chaos ?

There is no right nor reason for *a priori* limiting the immense potential in blossoming sources of information which could prove relevant for geographic research and interests. It is more likely that, instead of self-restriction in quantity and improvement in quality of written production, the flexibility and instant availability of the new communication medium will booster a new wave of inflation in research articles publication. Even if facilitating bibliographical research efforts and shortening access-times, the library net-surfing possibilities will not increase the available time in individual researcher's life for reading. Proliferation of publications will develop in parallel an increasing fragmentation of knowledge, a widening gap between mentally graspable and effectively available information, a more and more short-termed process of forgetting about the past production.

Although regrettable and vertigo-leading, this process of babelisation through over-communication may well seem the ineluctable and most probable scenario for the future.

As already exemplified by the struggle between libertarian initiatives and commercial interests among networks using Internet, the economic issue could become relevant for scientific networks as well. Transposing the layman's fears as expressed by Viviane Forrester's book about the seemingly irrepressible expansion of the values attached to a

communication thought of in terms of products, markets and profit, one may wonder how long the benevolent efforts of a community of researchers may resist to the possible economic interests at stake in networking the researcher's world. Will the competitive and profit-making processes overcome the cooperative values and reinforce the inflationistic trends instead of helping to re-establish a more rational and efficient way of communication between researchers ?

That is the point where the interest, responsibility and free initiative of any member of the geographer's community are linked with those of the group they form.

References

- Asimov I. 1980, The word I invented. *The Magazine of Fantasy and Science-Fiction*, october.
- Batty M, Barr B 1994, The Electronic Frontier: Exploring and mapping Cyberspace. *Futures*, 26, 4, 699-712.
- Berry M 1995, L'agenda du chercheur, que faire quand on a trop à faire. *Sciences Humaines*, 9, 19-22.
- Bester A 1953,
- Forrester V 1996, *L'horreur économique*. Paris.
- Gibson W, 1984, *Neuromancer*. Victor Gollancz, New York.
- Moles A 1995, *Les sciences de l'imprécis*. Seuil, Points-Sciences, Paris.
- Offner J.M 1994, *Réseaux, territoires et organisation sociale*. La Documentation Française, Paris.

Table 1 Introducing CYBERGEO

(name of web site: <http://193.55.107.3/revgeo.revgeo.htm>)

CYBERGEO, the electronic European Journal of Geography, has been conceived in order to facilitate faster communication of research and to promote more direct discussion between authors and readers. With the aim of widening the exchange of ideas, methods and results, it is directed towards European geographers, who can choose to express themselves in their own language. It concerns itself with geography in a broad sense, without any bias in terms of school or themes. It guarantees a high level of scientific communications by submitting them to an international reading committee. It also facilitates free expression through the existence of lists serves for personal exchanges alongside the actual journal. The subjects treated can be found easily through the use of sections and key-words. For as long as it remains possible, access will be open and free of charge.

The review does not claim to replace existing journals published on paper. The authors keep the copyright of articles or documents on line, so that these can be published elsewhere if the other review agrees to it. We invite our readers to respect the code of practice in this area. CYBERGEO wishes to respond to the specific needs of scientific communication, such as rapid exchange of information, immediate reactions after reading an article, « on the spot » discussion of events concerning the subject, long term discussions, clarifying statements about a given question, offers of results or documents, information concerning availability of maps, etc. The review wishes to be instrumental to the networking of the geographical community, and can also become a means of being visible to outsiders.

What makes the electronic medium interesting is that it facilitates an exchange of information or reactions to articles put on line. Should you wish to comment on an article, you can get in touch with the author directly at his or her address, or else with the person responsible for the section, or failing this, with the editor's office. This process is particularly useful for reporting errors or the omission of important references about the subject treated. The editors will take care to inform the author and discuss with him or her any modifications or eventual additions to an article. Should you wish to develop a general interest discussion on the subject treated by the author, you can add your contribution to that effect on the LIBERGEO list so as to trigger a debate. A summary of contributions concerning your question can be put together later by the person responsible for the section and eventually put on line immediately after the article.

To subscribe to the LIBERGEO discussion group, make your application by sending mail to listserv@bred.univ-montp3.fr with the command " SUBSCRIBE LIBERGEO " as text of your message.