TESL-EJ Teaching English as a Second or Foreign Language

The Electronic Journal for English as a Second Language

TESL-EJ: Conception and Potential of an Electronic Journal

Editor's Note: The following is the first article that TESL-EJ published. In 1994, the idea of electronic journals was new. In fact, most people hadn't heard of them, and for those who knew about them, they saw online publishing as not measuring up to print journals. A lot has changed since then; nearly every print journal has an electronic version, and many journals exist only online. We are proud to be a pioneer in this area.

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TESL-EJ: Conception and Potential of an Electronic Journal

Roland Sussex
Centre for Language Teaching and Research
The University of Queensland
<sussex@lingua.cltr.uq.oz.au>

Abstract

The nature and role of electronic journals have been widely discussed over the past few years, and there is an emerging consensus on the parameters of such journals and the space in which they operate. ESL, however, is an unusual area in being inter- and multi-disciplinary, and in having a constituency which in some ways is not like that of regular academic areas covered by journals. This paper discusses the conception and inception of TESL-EJ, a new refereed journal in the ESL area with a particularly wide mandate. Special attention is paid to the properties of electronic journals, how these bear on ESL, and how TESL-EJ could interact with its discipline to construct new ways of developing academic discourse.

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1. Introduction

The dramatic potential and dynamic growth of electronic networks is already evident in mailing lists and user groups devoted to language, language learning and linguistics] Thousands of linguists use the international networks, especially the Internet (Krol, 1992) and to a lesser extent Bitnet, for electronic mail, bulletin boards, accessing remote data-bases and library catalogues, for consulting sources like ERIC (Houston, 1990), for seeking electronic addresses of colleagues [2d] for specialized discussions related to their professional disciplines. Some of these mailing lists are moderated, which means that a designated specialist filters incoming mail and removes material which is irrelevant, inappropriate or redundant before distribution. Other mailing lists are not moderated, and any messages mailed to the address of the list are automatically distributed to the total membership. Some of the lists, like Linguist, Humanist and TESL-L, have been in existence only a relatively short time, but already have thousands of members. The resources of the electronic networks, which are known collectively as the Net, are serving an increasingly vital role for researchers, teachers and students. The Net cancels out many of the effects of distance, so that scholars are able to communicate freely with communities of colleagues in different parts of the world. This benefit has been particularly felt by scholars who live farther from the intellectual hubs of North America and Europe, and probably less by those who have access to numerous colleagues and large libraries within easy commuting distance. It is too early to talk of a global community of scholars, since many do not use the Net, and since those who do are still discovering its full potential. But the Net promises to shrink both distance and time, and so to revolutionize the conduct of teaching and research. Rather than waiting for annual conferences, or for replies to airmail exchanges of viewsthe fax, though potent, has never achieved the immediacy or personal quality of the Net, because it is still very much person-to-person, while the Net can function as person-to-person or person-to-group the Net is enabling colleagues in different countries to interact and collaborate in ways which were not possible only a couple of years ago.

In another, and less obvious, sense, the Net is also encouraging interdisciplinarity. This is a variant of the argument from geographical distance above: disciplinary distance is also a relevant factor, and for those of us who work in interdisciplinary areas like ESL the availability of material in other disciplines, and the provision of software tools to search the Net for items indexed under specified keywords, is a liberalizing and democratizing influence. While the danger of information overload remains as a threat to the use of this facility, it is nonetheless true that as intellectual information grows in volume and specialization, the Net and its access tools provide a welcome antidote and corrective to what could be the fragmentation of disciplines.

Nonetheless, one bastion of scholarly activity has withstood the advance of the Net. This bastion is the scholarly jourommercial publishers have been dragging their feet on electronic publication for a variety of reasons, including a whole set of unknowns: how to

charge for electronically delivered publications, how to stop unauthorized copying, how to standardize delivery of text and non-textual material, and many others. Various models for delivery have been under consideration, from publisher-control to the use of intermediaries like communications companies, to universities-as-publishers. Clearly, all have heard Tofflers arguments on the need to control both the source and the distribution of information (Toffler, 19971, 1980, 1990). All have also begun to appreciate the significant flexibility of electronically-based documents, which can be published in a number of different formats and contexts with minimal trouble and cost: as articles like those in a paper journal, as stand-alone items, in collections of papers in one or several disciplines, or via bulk network deliveries to libraries. There has, in short, been no lack of issues to discuss. The problem has been rather how to get a handle on them, and where to start.

Electronic journals, then, have not (yet) come from major publishers. Such journals have tended to be the initiative of a few enthusiast-visionaries, or of small groups of determined, dedicated and self-sacrificing scholars. There are some electronic journals in areas of the humanities, like EJournal, but there is apparently nothing in the area of languages, and certainly none which is formally refereed and run by an international editorial board as we expect of a major scholarly paper journal. And yet the Net offers a number of great potential advantages to a scholarly journal: speed, low cost, breadth and ease of delivery and interactivity. Such a journal in the ESL area would certainly not reach all, perhaps not even a majority, of researchers and teachers. But the speed at which the Net is expanding, and at which connexions are being negotiated to the Net, promise to provide an electronic ESL journal with quite extraordinary opportunities.

TESL-EJ is such a journal. This paper outlines the circumstances in which it arose, how it was conceived and assembled, and what it aspires to do. We shall deal with the inherent properties of electronic journals, which have been the subject of debate in various sections of the Net. We shall consider their relevance to the richest exploitation of the opportunities for *TESL-EJ* on the Net, and compare them to conventional paper journals in the ESL and applied linguistics fields. We shall discuss the ways in which the Net can enable, for both editorial staff, authors and readers, a new and more flexible format for an academic journal. Many readers of this first issue of *TESL-EJ* will not be expert users of the Net. Even those who are already Net-literate may not appreciate how the concept of a refereed academic journal and the Net can be made to work together. In addition, *TESL-EJ* has an unusually wide mandate, to span the total range from pure research to trench teachers, and to cover not only the strict definition of ESL, which is itself an area rather than a discipline, but also the relation of ESL to applied linguistics, linguistics, psychology, education, cognitive science and other domains which overlap with ESL. Covering this range, and establishing a successful new electronic journal of this type, will require the kind of vision and collaboration which are potentially within reach via the Net.

2. The Origins of TESL-EJ

In June 1993 Anthea Tillyer, one of the founders of the electronic mailing list TESL-L, floated the idea of an electronic journal concerned with issues in and around the ESL area. The responses, from a wide range of subscribers, were positive and consistent. There was considerable dissatisfaction with the existing journals, which were felt to be too narrowly focused on research, and insufficiently oriented towards the wider needs of ESL, from the research laboratory to the classroom. The conventional paper medium, which is becoming increasingly overpriced for all but well endowed libraries, was seen as no longer suiting the needs of the audience for a broadly-based journal in ESL. It was often scarified for being too slow, too eclectic and too isolated in the ivory towers. There was widespread interest in the potential of electronic delivery of a new journal, and the ways its ability to overcome some of the problems of paper journals, particularly in speed and openness of delivery.

This phase of the discussions, however, was lacking in shape, focus and direction. There was a need to refine the idea of an electronic ESL journal. Many of the discussants shared the sentiments of Edward Jennings, founder of the electronic journal *EJournal,* about the nature of email discussions on the Net:

> *One set of issues had to do with the academic sociology of networks, lists and bulletin boards as a mediumthe fascination they held for some people, and the nagging we felt as we wasted our time in extended and stimulating, but professionally unproductive conversations. Another set had to do with the peculiarities of the discourse itself. We all had some inkling, I think, that writing is different when you have to scroll it instead of flip codex pages. It is more like talking when you know the names of almost everyone who will read what you type, but have never met most of the group. I think it was Michael Cohen who likened the environment to a large party where friends, acquaintances, and strangers mingle, and where most of the conversations are familiar enough to be easy to join, yet just strange enough so you dont feel obliged to chime in. (Jennings, 1991, p. 92)*

We, like Jennings, were after something less stodgy than the familiar pseudo-permanence of paper journals (Jennings, 1991, p. 92), but less evanescent and shapeless than the regular postings to mailing lists. So Anthea Tillyer put out a further call, this time for a smaller group who were ready to commit themselves to using email to brainstorm and workshop the journal idea. The Working Group took shape as a collaboration of 22 specialists in and around the ESL area. The convenor and moderator of the Working Group was Roland Sussex, who had previous experience with networks and the organization of teaching and research in electronic media and contexts. [4]

The goal of the *TESL-EJ* Working Group was to determine whether an electronic journal concept in ESL was viable; what it should look like; and how it should be set in motion. Many broad issues were canvassed in the discussions, with a view to their bearing on the specific goals of TESL-EJ, and on the need to set in place a working model as soon as possible. The emphasis of the discussions was to favour flexibility, breadth, an open texture, and a dynamic structure and modus operandi, which would be able to evolve in response to, and leading, developments in the discipline over time. For this reason we outline here the specific issues debated by the Working Group. We return to the broader questions, which relate to the wider mandate of *TESL-EJ,* from #3 below.

The Working Group settled quickly on a broad definition of TESL, and stayed with it consistently throughout the discussions. The mailings began from a summary of key issues not for discussion by Anthea Tillyer, including the name of the journal; its international basis in excellent scholarship; and its wide range from K-12 to post-secondary, from research to classroom, and to include both ESL and EFL. The discussion began, inevitably and properly, from a consideration of paper journals already in the fieldlike *TESOL Quarterly, ELT Journal, English Today,*and *College ESL.* The Working Group appreciated the need to differentiate *TESL-EJ* from these journals, and the ESL coverage in other journals in and around the target area, without ceding the field to these journals, or allowing them to overshadow the idea of an electronic journal. Members of the Working Group were not unanimous over the details, but felt broadly that too many existing paper journals in the ESL area were:

- expensive and inaccessible to many readers
- not on-line, and not showing any intention of becoming so
- lacking in a genuinely international perspective
- narrow in range, especially with respect to electronic communications and technologies
- usually not produced by, nor sufficiently directed towards, teachers
- sometimes not sufficiently committed to excellence, originality or breadth

In other words, there was a consensus that the paper journals were not serving enough of the readership, in enough of the field, with enough quality or range. The question of range attracted special interest. One issue, repeated often and insistently from many quarters, was the question of trench teachers. True, journals like *TESOL Quarterly* do not devote direct attention to the practical end of applied TESL. And the various newsletters, while providing coverage of materials relevant to the front-line classroom teacher, do too little to link this end of the profession to the more theoretical and methodologically sophisticated areas. Classroom tips, however, were not seen as not an appropriate focus for an academic research journal.

But how far should the new journal seek to be a paper journal in concept, but delivered electronically? As one member put it,

> *Two clear trends seem to be emerging: to try to confirm to conventional journal form in order to foster prestige and lend weight to publication citations OR to take maximum advantage of the still undefined potential of the electronic medium.*

The Working Group opted to go for both goals, rather than viewing this as an either/or choice. But this decision in itself brought several attendant requirements, all linked to the issue of quality and credibility. The still undefined potential of the electronic medium includes immediacy and interactivity. But the standard of dialogue, even on professionally self-moderated mailing lists like TESL-L, is uneven, and the signal-to-noise ratio is variable and not appropriate for a scholarly journal. Following advice from experienced electronic journal editors like Harnad (1990b, 1991, 1993b), founder of the electronic journal Psycoloquy, the Working Group insisted from the start on rigorous peer review by a top-flight editorial board, and on strict editorial control to ensure quality. Without these desiderata it was felt that *TESL-EJ* would fail to present a professional face to the discipline.

It would lack credibility, would not attract leading-edge authors or papers, and would not receive appropriate recognition in considerations of appointments, tenure and promotion. In addition, the journal would have to be registered with appropriate professional bodies, should have an ISSN, and should be abstracted and cited in the appropriate abstracting and citation indexes. The new journal should leave to mailing lists like TESL-L the role of daily dialogue and unmoderated interchange.

How then should the new journal seek to exploit the properties of the Net? Here the Working Group focused on three areas.

The first was speed. The Net allows very fast distribution, which is a boon to those who do not happen to live in the same country or continent as the publishing house of a journal. It also allows quicker production and turn-around times for the submission, revision and mentoring of articles, since contributions submitted in electronic format can be distributed to editors, and eventually published, with fewer intermediate steps like re-keying, printing and binding. Some of the Working Group had already had experience with this phase of the process of journal production: E-mail publication lends itself to much more active editorial assistance in taking worthwhile pieces and bringing them up to standard.

A corollary, the second of the factors, was the breadth and democratic outreach of the Net. With authors, editors and readers connected by increasingly seamless and ubiquitous communication links, new possibilities opened up for information exchange and for the development of new kinds of scholarly roles for the journal. Simply having the journal available at ones terminalin the workplace, in the library, in the office, or even at homebrings the journal not only to the unknown numbers of users of the 2.5 million host computers on the Net (Wallich, 1994), but also to people who, through these users, can ask for copies of items from the journal, whether on disk or paper. The topography of the Net, however, is also a limitation, at least at the present time. There are considerable numbers of experts in the ESL field who currently do not have access to the Net. There are many teachers outside large tertiary educational institutions, particularly in developing countries, for most of whom access is currently out of the question for both economic and educational reasons. On the whole, the Working Group was not deterred by these considerations. One factor is the honeypot effect, which predicts that people will find their way to the journal if it is good enough. The other is the dynamic growth of the Net, and its tendency to expand, or to open access links, to those who apply for access with sufficient grounds and persistence. The Working Group concluded that *TESL-EJ* could well become a major catalyst in changing the relation of ESL specialists to the Net and its use in their teaching, research and communication, both in and beyond *TESL-EJ.* For these reasons the Working Group was happy to endorse a range of intended readers, including teachers of LOTE (Languages Other Than English), linguists and applied linguists, educationalists, speech therapists, psychologists, cognitive scientists and others in areas adjoining ESL.

The third issue had to do with the scope of the journal. The Working Group was concerned that areas of the ESL domain could be fragmented, for instance by the tendency for existing journals to restrict their coverage to certain types of work. Instead, the Working Group preferred a more inclusive approach, covering both ESL and EFL; disciplinary and interdisciplinary work, to meet the inherently variable nature of the ESL domain; not only theoretical and conventional empirical research, but also action research and ethnographic

research; not only completed research, but also accounts of research in progress; not only articles and reviews, but also surveys and lists of recent software and teaching materials, squibs, reports on developments in various countries; and moderated discussions (the Forum function). There should also be a lively interaction with mailing lists like TESL-L and its daughter lists many issues would arise in a more spontaneous and un-moderated way.

In addition, the Working Group came out in favour of a broadly-based and wide-ranging coverage to include topics like:

- acquisition of morphology
- adult education and literacy
- CALL
- cognitive research on language acquisition and processing
- connectionist applications
- cross-cultural ethnographies (conflict resolution, learning styles)
- curriculum development and evaluation
- distance education in TESL/TEFL electronic communications,
- including areas like
    - teacher development
    - electronic networks for student/teacher research
    - electronic penpalling email as a teaching tool
- employment issues for EFL/ESL teachers
- ESL/EFL Fluency First and whole language pedagogy
- intensive English Programs
- intercultural communication
- jobs, employment and working conditions in TESL/TEFL
- learning theory
- material development and evaluation
- materials writing
- models of language and language acquisition
- models of second language acquisition
- phonology
- regular columnsclassroom tips/techniques, whos who,etc.
- teaching reading
- teaching writing
- testing

- Universal Grammar
- using computers to teach reading
- using computers to teach writing
- using literature to teach reading
- using Netnews to teach English World Englishes

This list is deliberately incomplete and open-ended: it is intended that *TESL-EJ* will reach as widely as its editors, authors and readers wish.

There remained the question of managing the journal. The Working Group decided that the key management structure should consist of an Editorial Board, headed by an editor-in-chief. There would be a small number of editors dealing with specific areas, and answering to the editor-in-chief: an assistant editor, a technical editor, domain specific editors for reviews and media (including electronic media), and a new Forum for interactive, moderated discussion of focused issues. An editor-at-large for particular projects was added to this list, in recognition of the variety and scope of the journals intended activities. There would be an Advisory Board of editors drawn broadly from the domains covered by the journal. And there would be an Executive Board, which would operate at arms length from the Editorial Board, and would undertake tasks like the overseeing of elections and appointments to the Editorial Board, and would also deal with relations with instrumentalities outside *TESL-EJ.* The journal, like most other current electronic journals, both refereed and otherwise, would have no formal budget, though funds could be sought through major funding agencies for special projects relating to the work of the journal. In having no professional association or commercial publishing house to provide an infrastructure, *TESL-EJ* is very much a collaborative enterprise which depends on the contribution of cost-free work by its editors and authors. On the other hand, over time *TESL-EJ* could well become the focus for applications to funding agencies, since its potential for coordinating research for specific purposes, and the expertise to which it would have access, could make it a [-8-] particularly valuable catalyst, and perhaps also a vehicle, for research management and coordination.

Copyright and ownership were decided on the model of existing electronic journals. Authors would retain copyright of their work. There would be a liberal copying policy encouraging those with access to the Net to make copies on disk or paper to others who may not have access to it. Libraries would be free to make paper copies to shelve and lend if they wished. Any reprinting, however, would require the written permission of both the author and the editor-in-chief. *TESL-EJ* would have an ISSN identification (which is 1072-4503), an official masthead, and would be indexed and abstracted in the appropriate abstracting and citation journals. The journal would initially appear on a quarterly basis, with possible changes in its periodicity to be considered as the nature and volume of work in the journal evolved. In the end the Working Group did not favour rolling publication, which would have made articles available as they were cleared by the editorial board. This was partly a concession to the model of paper publication, and partly to emphasize the integrity of the idea of the journal itself. The model for archiving and distributing the journal would be a listserv, mounted at the University of California at Berkeley. Listservswhich are one of the standard models for handling mailing listshave the great

merit of being user-friendly, usually cost-free to registered users and sufficiently flexible to handle both the distribution and the archiving of large volumes of text. The distribution would be handled in three phases: an ASCII copy of the title page and contents to a number of related electronic mailing lists and discussion groups; an ASCII copy of the title page, contents and abstracts to subscribers of the journal; and high-quality print-ready files, in a format to be decided by the editors (in a format like Postscript), available through the listserv and also by anonymous ftp for subscribers only. This last requirement ensures that the journals printed form will have the appearance of a quality publication, and also that the Net will have to carry the traffic of only those items which subscribers specifically request.

By August 1993 the first phase of the Working Groups task was complete, with the election of Maggi Sokolik (College Writing Programs, University of California at Berkeley) as editor-in-chief. Over the following weeks elections were held for a series of slots which had been identified by the Working Group: Reviews Editor (Suzanne Irujo, Boston University), Technical Editor (Tom Robb, Kyoto Sangyo University), Media Editor (including software and audio-visual materials: Michael Feldman, Boston University); Forum Editor Janet Sutherland (Fachhochschule Regensburg); and an Editor-at-Large for special projects (Macey Taylor, Marie-Curie University in Lublin). Ron Corio (Virginia Commonwealth University) and Charles Sandy (Chubu Community College) were appointed Assistant Editors. [-9-]

From this point the Editor effectively took control and leadership of the Working Group. Nominations for the Advisory Board were canvassed, nominations received, and invitations issued. The resulting board, as listed at the start of the journal, represents a broadly-based, international and distinguished group of scholars. The Advisory Board was seen as one of the most important steps in establishing the credentials of *TESL-EJ.* Since *TESL-EJ* is not the organ of an association, nor the property of a commercial publisher, it has an initial issue of credibility to address. The electronic journal *Psycoloquy* had shown that this structure is fully compatible with the highest academic standards and standing. The Working Group placed great emphasis on the selection of a widely-based group of outstanding scholars, representing the key areas of expertise to fall within the purview of *TESL-EJ.* As we shall see, the standing of electronic journalsgiven the proliferation of discussion groups with varying levels of quality depends perhaps more than with paper journals on the clear implementation of quality control, on the authority of the scholars who lend their names to the journal as editors, and on those who choose to publish in it and the quality of their work. There are not many fully refereed electronic journals so far. None that we were aware of has deviated from putting full emphasis on the appointment of an Editorial Board with outstanding credentials. These criteria serve not so much to differentiate electronic journals from paper journals, but to separate electronic journals from the less-than-journal discussion groups which are proliferating so vigorously on the Net.

The task of the Working Group was now virtually over, and it was wound up in January 1994, at the same time that the editorial mailing list shifted from the listserv at the City University of New York (CUNYVM) to Berkeley, where it will be both geographically and managerially close to the editor. To those who participated in the long and processes of the

Working Group, and those who helped to support the activities of the Working Group through CUNYVM, *TESL-EJ* offers its warmest thanks and congratulations.

3. Properties Of Electronic Journals

3.1 General considerations

Seen in retrospect, the Working Group concentrated mainly on two issues: establishing an electronic format for a new journal; and ensuring that this journal would have as many of the benefits of a paper journal as possible, in order to secure credibility and professional standing. Overall, the Working Groups approach was conservative and gradualist. It did not favour radical new departures, particularly from those aspects of the paper journal which were felt to be central to professional credibility. And while countenancing later and more radical developments, it tended towards a starting position [-10-] which was closer to a paper journal with the delivery characteristics and advantages of electronic networks. The principal departures from this position were a widening of scope in the direction of reviews of non-paper media research and materials, and the introduction of a Forum section to handle moderated interactive discussion of designated key issues. The forum concept picks up the idea of scholarly skywriting (Harnad, 1990b)the wide broadcasting of ideas, after preliminary clearance by experts, for scholarly discussion. As Harnad puts it, The prepublication phase of scientific enquiry, after all, is the one in which most of the cognitive work is done (1990b).

Harnad claims that the single most dramatic effect of the Net will be in scholarly interactivity. A direct result will be that scholars will have feedback on their current ideas, rather than receiving such feedback, if any, when the idea is no longer current in the scholars mind several years later, because of the delays in publication. There are several underlying and important causes at work here. One is the inherently slow pace of refereeing. Editors are pleased to find reliable, conscientious and authoritative referees, and use them for preference. The trouble is that other journal editors discover the same referees, with the result that good referees are overloaded, and good advice tends to be slow in coming. When it comes it may be negative: Harnad quotes rejection rates of 80%-90% in the humanities and social sciences (see also Hargens, 1990), which means that rejected papers will have to enter another refereeing queue with another journal. Some of these delays can be significantly less with electronic media. Harnad estimates the increase in the individuals effective scholarly lifetime at an order of magnitude, precisely because broadly based peer feedback is available in a time frame closer to the speed of thought, and because of the breadth of distribution for comment. These ideas have been put into practice in *Psycoloquy,* an electronic journal devoted to refereed pre-lapidary scholarly dialogue (lapidary is Harnads term for archival paper journals):

> *Skywriting offers the possibility of accelerating scholarly communication to something closer to the speed of thought while adding a globally interactive dimension that makes the medium radically different from any other. (Harnad 1990b).*

This approach is certainly well justified in strategic terms. It allows the new journal a chance to establish its bona fides on a nearly level playing field alongside the established journals. But it also allows the new journal to explore fresh ideas, formats and initiatives as the discipline, and its readers and contributors, develop a more experienced, richer and

more innovative approach to the concept of an electronic journal. These wider potentials concern above all the nature of electronic networks for scholarly work and information interchange. We now address these issues, and explore in greater depth the nature of electronic journals in general, and with specific [-11-] reference to the special properties of ESL as a discipline area.

3.2 Justification for new journals

Another journal? This is a fair question, given that libraries are now struggling to maintain periodical subscriptions in the face of rising costs and a flood of new journals from reputableand some less reputablepublishing houses.

If the Net is so well suited to dissemination of academic work, why publish at all in the formal sense (Franks, 1993)? Why not simply write articles and distribute them via the Netparticularly if there is no obvious financial benefit to accrue to the author? This vanity press mode fulfills a number of goals in the propagation of academic information, but falls short on three, which together constitute author support: certification, or the verification of quality by peer review; archiving, so that work will continue to be accessible; and marketing, to ensure wide distribution. In addition, there is a dimension of scholar [i.e., reader] support in terms of quality, cost and functionality, especially in the ease of access and user interface. In some respects the vanity press does well, for instance in allowing access to preprints via data searching software like gophers, which have a simple and transparent interface, and allow on-line browsing and retrieval of abstracts or full text (Franks, 1993). There are currently significant, but diminishing, questions of marketing, as the Net becomes more ubiquitous and accessible. But there remain problems with the vanity press model, partly with the publishers, and partly with issues like quality control.

Franks is very concerned with certification of quality, archiving and marketing. He discusses four alternative models to the vanity press:

> (a) the data-base model, where subscribers (including libraries) pay to access a commercial data-base where scholarly text is held. Certification and marketing are well handled, but archiving resides with the commercial provider, and not with the library;
>
> (b) the software model, where subscribers receive a software package, updated annually with their subscription, to read an encrypted text base. This is in effect a higher-technology version of the data-base model;
>
> (c) the subnet model, where users in a defined sub-part of the Net (a university, department, individual, etc.) subscribe indirectly for full text access. The publisher cannot charge for access or search time, as can be done with (a) or (b), and controls on both costing and security are transferred to the subscriber, whose subnet is also responsible for archiving; [-12-]
>
> (d) the subsidized model: access to the journal is free, since attempts to prevent unauthorized use [...] make the use much harder for the authorized user, and since authors and editors derive no benefit from the attempts to restrict access (Franks, 1993). Costs are covered by professional associations, learned societies, institutions, and/or individuals. The question of cost is not novel, since some journals already

levy page charges for publication, and the free work that academics contribute to journals by editing and refereeing (Harnad, 1993b) means that most journals are already partly subsidized.

In considering the interests and requirements of authors, readers, libraries and publishers, Franks tends to favour (d), to exploit the inherent capacity of the Net to enhance access to scholarship. But he realizes that this solution does not seriously attack the question of the valuable role of commercial publishers in the dissemination of academic work.

The arguments for new journals depend on who is making them: the commercial publisher who has identified a niche market and wants to establish a position there; academics who have determined that the current journals cannot handle either the volume or intellectual profile of the current state of the discipline, and wish to provide a new outlet for research; or readers who are finding either that what they want to read is dispersed over many other journals, or that they cannot find what they want to read in available journals.

TESL-EJ aims to serve the second and third of these needs, concentrating on its scholars and readers. In addition, the Working Group targeted two other factors. One factor concerned profile. The world recession over the last decade has moved funding agencies, including those which directly fund ESL research, to focus strongly on economic outcomes, which means not only applied research, but practical work as well, notably classroom research and action research. The other factor was also a matter of range, but in a different perspective: the question of the disciplinarity of ESL. Most of the reputable language acquisition and ESL journals have been showing a healthy increase in disciplinary breadth recently, so that general linguistics, psycholinguistics, and aspects of quantitative (Henning, 1986) and other methodologies have been more visible and more rigorously woven into the research published there. But there is still a gap for such work to be published in a forum which is designed for a broad-band readership from the research unit to the classroom. This is one of the gaps which*TESL-EJ* aims to fill, especially in view of the unusual, heterogeneous and widely based constituency of ESL.

In addition, the notion of *TESL-EJ* found favour with the Working Group because of the kind of journal which it aims to be. As we shall see below, there are some important properties in electronic journals which give them a new and flexible role in the fields [-13-] which they serve. Some of these properties are clear advantages (Harrison, Stephen & Winter, 1991); some are quite probably negatives. And some are by nature neutral, waiting to be exploited by inventive and innovative researchers, readers and editors. We shall examine these properties in turn.

4. Arguments in Favour

4.1 Democracy and access

Among the many claimed advantages of electronic journals, probably the most persistent, and the most plausible, is the argument from democracy. Current paper journals are, on the whole, expensive, and are becoming more expensive. Items recently posted to the PACS-L (Public Access Computer Systems) discussion group have claimed that personal subscriptions to paper journals are declining, and library subscriptions are now the principal mainstay of the majority of journals. The libraries, through shortages of funds and competition from new journals, are starting to cancel journal subscriptions. All of this

means that library access to journals is becoming more difficult, less comprehensive and more expensive.

The electronic journal, in contrast, is unencumbered. It is free. To those who have access to the electronic networks, it is simply there, together with all the many other information sources to which the Net provides access. Scholars do not need a library to access *TESL-EJ.* They can access it from an office computer, from home on a modem, by remote login. All they need is an account on a machine on the Net.

The founders of *TESL-EJ* are aware that not all those wishing to receive the journal will be in such a favourable position. For this reason they have adopted a distribution policy which is as open-ended as it can be, without compromising the rights of the authors. Furthermore, experience with the Net over the last few years of dynamic growth has supported the idea that the Net will tend to grow to meet clearly articulated needs. We can expect, then, that those without Net access will be in a strong position to negotiate and pressure for this access in the light of the benefits which should accrue from *TESL-EJ* and similar resources.

Readers of *TESL-EJ* will not be limited by the kinds of geographical and institutional access which are increasingly coming to characterize authoritative paper journals. It will not be necessary to visit physical libraries. Instead, the virtual library of the Net (see #7.2) will provide access and information at the convenience of the subscriber.[-14-]

4.2 Time frames

Many current paper journals have publication queues. This is a curious phenomenon. Up to about twenty years ago articles were published in journals because the journals provided the quickest and widest means of dissemination of ideas (Okerson, 1991, p. 7). True, by the time the articles appeared in print the ideas could have been in the market place for some time, through presentation at conferences or via working papers. But the journals reliable quality control through editing and refereeing ensured the standing of the published version. Now, with increasingly rapid means of production, often involving authors producing camera-ready, near-camera-ready or disk-copy, one would have thought that delays would be shorter, and the journals would be closer to the cutting edge of current developments, rather than being one to three years out of synchronization with the dialogue at conferences and in working papers, which is where the temporal leading edge of the discipline lies. The problem, of course, is that there are now more scholars writing more papers. And rather than ideas being able to find their natural maturity over time, as used to happen not so long ago, these scholars are driven by imperatives to publish to secure appointments, tenure and promotion.

Paper journals already exploit electronic networks to some extent. While it is still relatively unusual for papers to be submitted in electronic format by the network, editors are starting to seek referees opinions by electronic mailon papers which have had to be sent by airmail, or, in cases of extreme emergency, by fax. These strategies have helped to shorten some of the delays in the refereeing process. But they have not, on the whole, overcome the fundamental time-block in the production process of paper journals. Many journals, for instance, still re-key articles for publication, rather than seeking machine-readable ASCII versions at least of the plain-text parts of the articles.

In an electronic journal, on the other hand, the whole process can be handled through the networks with impressive speed (Harnad, 1990b, 1991). A paper can be submitted and rerouted to specified editors within minutes, and the refereeing editors feedback can similarly reach the editor, and through the editor can be redirected to the contributor for the revision of the paper, almost in real time. Postal time is zeroed. In addition, the transparent parallelism of the Net means that multiple copies can be automatically circulated to multiple recipientssay, the editorial boardwith none of the tedious and more costly manual copying and mailing required in paper-based environments.[-15-]

4.3 Flexibility and format

Conventional paper journals are significantly constrained by their costs of production, distribution and marketing. These factors in turn affect the journals format. Journals tend to appear at regular intervals, in regular formats (articles; review articles; reviews ...), and in regular sizes. Fortunate editors have material in hand 12-18 months in advance, though longer waiting times for publication are by no means uncommon, and constitute a penalty for hapless authors who need evidence of publication for career purposes. There is a rough self-regulating mechanism in the supply and demand of material. Editors with a shortfall of material will beat the institutional bushes to solicit papers, or use conferences as paper-culling terrains. Editors with an oversupply can offer authors a choice: wait and publish with the current journal, or go elsewhere. The costing/subscription structure of paper journals means that it is not easy to make significant variations in format or size, which limits their ability to respond to changing demands in the academic market-place. Electronic journals have a major advantage in format. They need not be constrained in terms of length, since there are no costing and production considerations to constrain the volume of material published. Users of the Net are accustomed to loosely structured and destructured communications, and take readily enough to unfamiliar formats. Electronic journal editors can rest entirely on qualitythey can publish what is ready and of certified quality and the size of the journal need not be constrained by considerations of cost. In a good quarter (or whatever the journals periodicity is) the editors may agree to publish zero or twenty articles. They may publish from zero to hundreds of pages of material. They can balance the various component parts of the journal (articles, reviews, review articles, notices, books received, etc.) in varying proportions. They can even choose to publish small monographsthat difficult genre of between about 15,000 and 50,000 words, which is too short for a normal paper monograph, and too long for most journals, even when serialized. Furthermore, while the traditional paper journal is bundled as a single volume (eventually rebound annually into tomes at considerable cost by libraries), the electronic journal can be unbundled and archived as separate items (articles, reviews, squibs, discussion items, forum contributions, etc.), indexed by key-words or by full-text search, and available not only within the physical confines of the paper covers, but to anyone with network access and software for searching text data baseswhich itself need not consist merely of the contents of a single journal, but could include the output of thousands of journals, linked by network-searching software like gophers. In order for such a system to work effectively, however, archived items would need to be specified more fully and consistently for subject and sub-areas than is currently the case, using perhaps a standard thesaurus like that developed for ERIC. There would also have to be consistent and wide-ranging cross-

discipline [-16-] indexing if the archived items were to be retrieved reliably and with maximum utility.

Nor need the editors be constrained by publication schedules. It is possible for electronic journals to publish on a rolling basis, as material is cleared by the quality control processes. *TESL-EJ* has chosen to publish at regular intervals of 3 months, in order not to break too radically with the practices of its peer paper journals. But there is no compelling reason why *TESL-EJ* could not move to 2-monthly, or monthly, or even rolling, publication, as negotiated between the editors and the readers.

Not all these ideas endear themselves to electronic journal editors. Charles Bailey of *PACS,* and Eyal Amiran and John Unsworth of*Postmodern Culture,* all judge that the electronic journal should hold rather to the model of the paper journal, at least at this phase in the interregnum between paper and electronic publishing. For Rogers and Hurt (1989), on the other hand, the packaged, printed journal has already outlived its usefulness as a medium for transmitting academic work. And Stevan Harnad, who began part of the diversification of format of journals during his editorship of the paper journal *Behavioral and Brain Sciences,* favours much more free-form and flexible formats than those of *PACS* or *Postmodern Culture,* orfor that matterthe formats which will be adopted by *TESL-EJ,* in its early issues at least. Whatever the position of these specialists on format, however, they all agree that journals have certain standards and formats to maintain. A scholarly journal which did not publish articles reporting on original research would hardly be worthy of the name. And the widespread reservations about the suitability of mailing lists for scholarly discussion rest very much on the formlessless, lack of moderation (in the formal sense) and lack of thematic focus of too many mailing lists. Some of these lists have indeed been shut down for abuse of network privileges, usually on the grounds of race, creed, gender, sexuality or sheer personal vindictiveness. Electronic journals are well above this level of scuttlebut. On the other hand, there is a flexibility of format, and responsiveness, which inhere in electronic journals, partly through the means of production and partly through their low-cost or cost-free modus operandi. They can, at least in principle, experiment more than paper journals; and they can seek to respond to the changing needs of the academic market place more rapidly. The very existence of electronic journals is likely to have an unavoidable effect on all of academic publishing:

> *Of course, early experience with electronic equivalents of paper information clearly proclaims that the moment information becomes mobile, rather than static, this transformation fundamentally alters the way in which information is used, shared and eventually created. (Okerson 1991, p. 9) [-17-]*

4.4 Ecology

The ecology argument is simple. Paper journals consume forests. Electronic journals, given the existence of networks and appropriate hardware, consume very little, and the management costs are amortized across a huge and existing base. While moving parcels of printed materials around certainly provides income for postal services, airlines and freight carriers, this also consumes natural resources. Not, perhaps, to a devastating extent, but to a significant one. Electronic journals are likely, then, to be ecologically friendly.

There is a counterargument: that with enhanced numbers of readers printing out enhanced numbers of pages in hard copy from electronic journals, will we not be consuming equivalent quantities of trees anyhow? The answer here will have to wait for someone to carry out a properly conducted study of resource usage in electronic journals. What we can be sure of is that readers will print out only material which they want in hard copy for some specific reason: after all, printing out text incurs a cost in printers, consumables and paper for the individual, who is likely to be chary of overuse. At the present time journals contain a great deal that one does not want to read in detail. By sending out abstracts, *TESL-EJ* will provide a compact package of information enabling readers to choose what they must read, and what they can afford to ignore. The articles which they do want they can down-load, and the ones which they particularly want to work actively with may then be printed out in hard copy. This kind of arrangement, with some modifications, was anticipated by Jennings for the electronic journal *EJournal*(Jennings, 1991).

Even here, however, the advancement of technology will tend to reduce paper demand. Copies of *TESL-EJ* will commonly be distributed on disk or by electronic networks. And the emergence of software for annotating text, creating hypertext links (Annotext; Intermediasee Meyrowitz, 1989) and indexes will encourage competent users to stop short of paper output at all. Granted, there is still something important in paper output in the writing process; for some it has functions involved in objectification, for others, in sequencing and rhetoric, though as screen quality improves, and text-markup software matures, more readers will be willing to read off their screens. But as text-oriented users become more proficient in working wholly within electronic media (Barrett, 1989; Landow and Delany, 1993), the use of paper associated with the consumption of electronic journals is likely to decrease. And where it does persist it will at least, as we said above, be related to material which the reader specifically wants, and not to material which is bundled in the journal and delivered as part of the bound package whether the reader turns out to want it or not.[-18-]

4.5 Collegiality

There is one more argument, in a sense related to the interactivity arguments reviewed above: the argument from collegiality. This remains a potential rather than a necessary benefit. Nonetheless, existing electronic journals report that the whole editorial board is much more involved than is usual in paper journals. With some editorial boards, all editors receive all submitted articles, and so have a much better idea of the kind of work which the journal is attracting. They can choose not to read it all. But they have a better perception of the relation between the journal and the way it is positioning itself in the discipline. Or, to take it from the reverse perspective, they can see better how authors regard the journal and its coverage in terms of the discipline. In many paper journals, members of the editorial board do not meet or communicate much in their capacity as editors. Indeed, most of their communication is to the editor-in-chief, and it is through this person that they will tend to communicate with other members of the editorial board. Members of the editorial board of an electronic journal, however, are able to communicate directly, quickly, and without needing the prompting of the editor-in-chief, perhaps supported by electronic conferences. It is also more likely that the editors will be encouraged, or expected, to take a more involved, proactive and interactive role in the direction of the journal.

5. Arguments Against

5.1 General considerations

There are several potentially serious factors against the introduction of *TESL-EJ,* and they directly concern issues which are, at least on paper (is this now an anachronism?), among the stronger points of the new journal.

5.2 Anti-democracy?

As we have seen, for those who already have access to the network, *TESL-EJ* should provide a welcome resource, and one which should have a powerful and beneficial effect. Such people may be asked by colleagues, or by their students, for paper or disk copies of *TESL-EJ.* This might be an intermittent servitude. The real problem, however, arises with those who do not have access to the networks. There are many millions of ESL teachers and learners in countries like the Peoples Republic of China where network access is still a closely restricted and expensive privilege for research academic staff in major urban centres, and where photocopying facilities are not yet widely enough available to make access to *TESL-EJ* feasible in any reasonable sense. And even in countries [-19-] where the networks are available, policies at government and institutional level often conspire to restrict access to the networks to a relatively small circle of accredited users. Japan, North America, Europe and Australia rank among the most highly wired countries for electronic networking. But even here there are at least two major groups of ESL teachers who will have to seek special new measures in order to secure access to TESL-EJ. These groups are the commercial ESL colleges; and the large numbers of ESL teachers in the primary and secondary school systems, in technological colleges, and in many teaching programs, sometimes distant from metropolitan areas and their technological advantages.

For all these people access to *TESL-EJ* will have to be negotiated. Some, like the commercial ESL colleges, will be in a position to pay for access: after all, they need only one copy of each issue, and can hold their own archives on disk. Others will have to make indirect arrangementswith their department of education, with their employing agency, or with friends and colleagues. The editors of *TESL-EJ* are not in a position to provide direct assistance in such cases. It is likely that some institutions and individuals with access to *TESL-EJ* will be able to arrange a regular supply for a nominal fee. But for all these teachers and learners without regular access to the networks, the interactive feature of *TESL-EJ* will be inaccessible. They will find it difficult to make contributions to the Forum section, and to interact with the editors in submitting and shepherding papers. Some access to *TESL-EJ* will be better than no access. But restricted access will limit the ways in which*TESL-EJ* can contribute to their teaching and learning environment.

If the lessons of the networks so far are any indication, the presence of a demand is likely to cause the network and its access points to expand. The Internet, which began as a U.S. military communications facility, is probably the most dramatic illustration. But for this to happen, there has to be an installed capacity to which connexions can be made. If that is the case, *TESL-EJ* could indeed be a useful catalyst for the expansion of the network. But in countries like the Peoples Republic of China it will be a number of years before full network access is possible for a significant proportion of the countrys ESL teachers and learners. For such countries and such potential audiences, the indirect provision of *TESL-EJ* on disk and

paper will remain a welcome facility. Those of us with regular network access tend to forget too readily the feelings of frustration and exclusion among those who do not have this privilege. The editors of *TESL-EJ* hope that those who do enjoy access to networks will be generous and positive in responding to requests for access to *TESL-EJ* from less fortunate colleagues. The networks will catch up; but it may take a considerable time to happen. [-20-]

5.3 Information overload

Where this catch-up occurs, we can expect dramatic improvements in scholarly communication. This is already happening in Eastern Europe, where scholars are revelling in a renaissance of East-West interchange. But in those countries, areas and institutions where the Net remains inaccessible, there is also a potentially more threatening side to the democracy argument. True, many countries in the developing world have difficulty in affording adequate library support. But while the Net makes access to scholarly work cheaper for those who possess the technical infrastructure, for those who do not have this access the gap is all the more prohibitive, precisely because of the high start-up costs of access to the Net. It is for this reason that Net-based scholarship could have a divisive effect, polarizing the north-south split even more than at present, unless powerful and generous ways are found to overcome this difficulty off-the-top, and quickly at that. The Net, in other words, could tend to increase the advantages of the developed world. It could alsoas Robert Kaplan has reminded me (personal communication)further entrench the hegemony of English, as a result of the overwhelming domination of English on the Net and in international data-storage, processing and transmission. On the Net there is also an undeniable problem of information excess and control. The networks currently carry a mesmerizing amount of information, much of it in the form of user groups and mailing lists, which function like subscription lists for paper journals, plus the ability for members to distribute messages to all subscribers through these network links. Some of the mailing lists and user groups are serious and professional, particularly those which are moderated: here a person or small group of people read and screen all incoming postings before they are distributed to the group, and do not broadcast material which is inappropriate for whatever reasoncultural, racist, sexist, professional level or personal. Most serious-minded of all are the very few professional electronic journals, which are as selective and jealous of their standards as any professional paper journal. That said, some of the other material on the Internet is scurrilous, biased, denigrating, abusive, lavatorial, indecent, pornographic, actionable and generally disgraceful. Some of it is devoted to flaming, a new term for abusing co-members of mailing lists in unrestrained and inflammatory personal terms. Some is devoted to genuinely subversive and anti-social activity, which can spill over into the operation and conception of bona fide information networks too (Baker, 1992). On the whole, the network is not abused by its adherents, most of whom quickly become aware of the extent to which the Net enriches their working (and often recreational) environment. Certainly we have not achieved levels of data-piracy like those anticipated in Gibsons celebrated novel*Neuromancer.* [-21-]

Nonetheless, readers and contributors to the TESL-L mailing list and its daughter lists will be aware of a number of emerging problems with the kind of regular, professional, supportive genre of mailing list represented by TESL-L. To begin with, there is

overwhelmingly too much traffic. Even rapid readers have difficulty in scanning the volume of electronic mail which arrives daily. This overload is particularly evident for those who work in inter-disciplinary space, and subscribe to ten or more mailing lists at the intersection of our respective disciplines, not to mention ones personal electronic mail as well. Heavy Net users may have more than 100 kilobytes of mail and messages (or about 1,500 screen lines) to scan in a day. The problem, then, is how to sift relevant mail. One answer, though still some time in the future, concerns intelligent information-extraction software, which scans incoming text for designated information, key words and concepts. But even such software will not solve the problem of overload, since a very important part of the operation of mailing lists like TESL-L is solidaristic, person-networking. Through the Net one can establish professional contacts, information sources, advice points, and so on, in a way which would be impossible in a normal geographically located institution. With all this, however, there is still too much to read. TESL-L is unmoderated, which means that any message sent to the list will not be filtered by moderators, and will be automatically distributed to all subscribers. In such lists the integrity of the list, and the standard of the contributions, are in the hands of the participants. It says a lot for the participants that these standards are so seldom violated. And there are voluntary correcting mechanisms, where contributors can ask other contributors not to post repetitive, long or irrelevant messages.

This question of volume suggests a further angle to the information overload issue which deserves our attention: the problem of scholars reading capacity in relation to the quanta of high-quality work offered to scholarly attention by publishers and the Net. It may be that electronic delivery will enable scholars to read more, as a result of convenience of having so much available on ones screen at the cost of a few key-strokes. It may also be that scholars will develop a capacity to read more as a result of skim-reading and sifting larger volumes of scholarly output, perhaps with the help of intelligent information-management software. But it is doubtful whether scholars will be able to increase their reading capacity by anything like the amount required to keep pace with the proposed increased output via the Net. We have already considered (#3.1) the publishing pressures on scholars, resulting in the high rejection rates for papers and the long publishing queues. There is also evidence in bibliometric studies of extraordinary low rates of reading, where the total readership of papers, even in some benchmark journals, can be numbered on the fingers of one hand. The result of these factors is surely that the intellectual community is approaching saturation point in its reading capacity, and that the majority of scholarly publishing reaches an unrealistically small [-22-] audience. For this reason we will need to monitor very carefully the performance and consumption of articles through the Net. It seems more than possible that the Net will bring quickly to a head the approaching log-jam in scholarly writing and reading. In this case those who promote scholarly activity on the Net will be reasonably expected to provide some answers.

5.4 Quality control and information integrity

The speed and spread of the Net should, other things being equal, provide a wider and more searching platform for critiquing ideas on their way to publication. Harnad refers to the Nets parallelism, immediacy, interactivism and global reach (Harnad, 1993), as a result of which it can make a great deal more scholarship available, and more readily, than other (paper) media. The problem then becomes one of what to read, since the volume of disseminated material is so largecompare the Quinn (1993) and Franks (1993) example of the highly controlled paper publication processes of mathematicsthat one needs additional layers of control to filter the material for quality. This issue is not a consequence of speed per se, but of the variable quality control on the Netanother matter to which we return below (see #6.2).

There is a further consequence of this speed of distribution in the increase in editorial involvement. In the electronic journal EJournal the editors all like to have a look at incoming material, whether or not they are formally refereeing it:

> *This process seems to me one of the great strengths of the electronic journal format. Not only can we be fast, but we can look at every submission as a committee of the whole, reading it from the perspectives of different academic disciplines as well as in terms of our own experience in the network labyrinth. (Jennings, 1991, p. 100)*

This means that there need be no significant division between a board of editors and an advisory board. And there is somewhat less of a direct burden of responsibility on the editor him/her-self. The EJournal editorial board, indeed, has never met, and Jennings believes that setting on a definitive editorial policy looks almost silly (Jennings, 1991). Note that an electronic journal does not have to function this way, since members of the editorial board can choose to operate more as they would for a regular paper journal. But it can mean that the editors may be more proactive than merely reactive, and that as a result they, and through them the journal, can play a more leading role in the discipline. Quinn (1993), for instance, has less faith than Harnad in the self-regulating capacity of the Net, and prefers a more conservative and directive editorial approach to ensure that we avoid communication anarchy, and to [-23-] interpose appropriately regulated quality filters in the process of publication.

TESL-L is a good example of voluntary regulation. But since it is not moderated, there is no control over the quality of the information posted. Some is chatty; some is from students seeking advice; some concerns high-level issues from established scholars; and so on. The profusion of information, and the indiscriminate nature of the levels and quality of information, have moved network gurus like Stevan Harnad (1990b) to propose a system of levels of access. Permission to write to the list would be restricted to saythe top twenty scholars in the field. This system of high level peer groups would overcome the flat anarchy of the current mailing lists, where anyone can mail contributions to all the subscribers. Harnad favours restricting the write privileges for a given area to a very small number of leading intellects, allowing others to read, but not to write. It works like this:

> *The idea is to have a vertical (peer expertise) and a horizontal (temporal-archival) dimension of quality control. The vertical dimension would be a pyramidal hierarchy of email groups, the height of each depending on degree of expertise, whether in a subspecialty, an entire discipline, or even an interdisciplinary field. An accredited*

> *group of peers at level i would have read/write access at level i; those at level i-1 would have read-write access at level i-1 and read-only access at level i but with the right to post to a read-write peer at level i who could in turn post their contribution for them, if it was judged good enough. An individual with an established record of valuable mediated postings could eventually be voted up a level. A single editor or an editorial board are simply special cases of this very same mechanism, where one person or only a few mediate all writing privileges through peer review.*
>
> *This vertical hierarchy would be based on the contributors degree of expertise, specialization, and their record of contributions in a given field. In principle, the hierarchy could extend all the way to general access groups for nonspecialists and students at the lowest read/write levels. (Such unrefereed groups would carry the equivalent of what is called flaming on the network today; unfortunately, this anarchic level is the only one that exists among the nets current unmoderated groups; in the so-called moderated groups all contributions are filtered through a single person, but usually one with no special qualifications or answerability. There is not yet any real peer review on the net.)*
>
> *So far, even at the highest levels, this would still be just brainstorming, at the pilot stage of inquiry. The horizontal [-24-] dimension would then take the surviving products of all this skywriting, referee them the usual way (by having them read, criticized and revised under peer scrutiny) and then archive them (electronically) according to the level of rigor of the refereeing system they have gone through (corresponding, more or less, to the current prestige hierarchy and level of specialization among print journals). Again, an unrefereed vanity press could be the bottom of the archiving hierarchy. (Harnad 1990a, cited in Harnad 1990b)*

One step further, of course, is a fully refereed journal like *TESL-EJ.* It is possible, given the chameleon-like properties of the Net, that all three solutions could happily co-exist.

These proposals have obvious relevance for the relation between TESL-L and *TESL-EJ.* TESL-L will continue to be an unmoderated, voluntary collaborative effortthough the time is approaching when there may need to be some restriction on free posting to the list. Already some groups of scholars are organizing themselves so that one reads TESL-L, one reads TESLCA-L, and so on (see note [5]), and the individuals sift and cross-post items of sufficient interest or relevance. But such collaborative arrangements are not so readily available for single teachers outside the team-context of larger institutions. There is a real and rapidly growing danger for individuals that the discipline and its traffic are growing too big for us to handle competently. There was a time, not so long ago, when reading a small number of journals, watching publishers catalogues, and keeping track of major recent monographs, would be enough to count as keeping up with the field. Nowadays the networks in particular, and to a lesser extent the burgeoning number of journals and series of working papers, are generating so much more material, and there are so many more scholars publishing, that what was once a manageable task has already exceeded the capacity of scholars to assimilate it. A study at the University of Queensland recently showed that scholars in the humanities had doubled their research output over the last 6 years with almost no increase in staff. If this increase in output is more widespread, since many universities have increased staffing complements, thentaken together with the

increased traffic on the networka genuine crisis is looming. Academics have increasingly more onerous work-loads, have increasing quantities to read, and are under increasing pressures to publish. There comes a point, in other words, where one has to either specialize and hard-headedly avoid reading the wider literature, or consciously become less than comprehensively read in our specialized areas.

The network is growing rapidly; not exponentially, but in some areas at least geometricallyfor instance, in the use of gophers. And the quality, as well as the volume, of information on the Net is also rising. So much is now so readily available that we are faced with a major dilemma. One answer may well be the kind of strategy which [-25-] *TESL-EJ* is proposing: a distribution of the title page, table of contents and abstracts of each number, so limiting the volume of information delivered to readers, and allowing them a convenient and efficient way of knowing (a) what they have to read, and (b) what they need to know that they dont need to read. Nonetheless, there remains a significant problem of information overload, management and access, and this problem is likely to be significant obstacle to new users of the Net.

5.5 Network literacy and expertise

Then there is the matter of simple network literacy and expertise. It is hard to see how network literacy will not become one of the basic tools of the competent scholar. This does not mean that all scholars will necessarily use electronic networks for even the major part of their communications. But expert network users may find it hard to remember what it was once like as a network novice to try to send messages to listservs, and how to handle what appeared to be capricious and obstructive behaviour on the part of a computer or networkall when ones sin was of orthographic, rather than apocalyptic, dimensions. New network users in the ESL community are likely to have some competence in handling a computer at the basic level, and in word-processing. More than this cannot be safely assumed. Furthermore, many will not have easy access to the kind of support and advice which are available to computer and network users in large educational institutions like universities. It is all too easy for beginning network users to be discouraged, perhaps permanently, by failing, in spite of their best efforts, to get the network to provide what they are seeking. For this reason *TESL-EJ* is printing a beginners guide to the network and its use (see the paper by White in this volume). This paper will be permanently available for network users and their advisers, so that new users (and existing users who have lost their way) will be able to find the information that they need. [6]

Once a user is established on the Net, the sheer convenience of moving papers by electronic means rather than by post and paper should convince most colleagues that this will be the preferred mediumprovided, that is, that there is agreement about formats and delivery. This is not a trivial issue. Electronic mail (with the exception of character-based communications in countries like Japan) uses the ASCII character set from 0 to 127, which means that there is no room for accented letters, and no room for formatting of the kind common in word-processing programs in their raw form. There are two solutions. The first, minimalist, solution would have us exchanging documents in basic ASCII, which means raw text without formatting, fonts, graphics or other additions which are not only standard in word-processing, but are also part of the fundamental requirements for academic publishing. While some papers may be deliverable in virtually raw textlike this paper,

which is in straight text [-26-] a good proportion of textual material will contain tables, graphics and other special text features which have to be handled, and to appropriate standards, in any journal worthy of the name. In addition, even publications like this paper should be deliverable to a standard which will allow *TESL-EJ* to look professional: in other words, to standards of camera-ready copy which are acceptable not only to network users, but to the wider community of scholars.

There are many ways out of this apparent impasse. The first is to exploit translation programs like Postscript and DOCMaker, which allow users to translate word-processed documents into a format which can be sent over electronic mail. Documents in these formats, like Microsoft Words rich text format (rtf), are copied from the users personal computer to the network and mailed electronically like any other electronic communication. The recipient then downloads the translated document to his/her personal computer and untranslates it, which results in a document which retains all the formatting and special effects inserted by the author. The steps to achieve this transfer are not entirely simple, but they can be captured in sets of instructions for users to follow. An alternative is to archive documents in their formatted word-processing form, and allow readers to recover them not by electronic mail, but by remote file transfer protocol (ftp).

5.6 Authors and document preparation

Surely the majority of scholars in ESL now use word processors, either directly or through their assistants. This should mean that submission on disk, in some standard format, will allow all but the most luddite linguist to offer work for consideration to *TESL-EJ.* More problematic, however, will be the matter of authors having to be their own typesetters. This phenomenon was prompted by desk-top publishing, and has turned a number of academics into hopeful, but often also hopeless, formatters of their own work. The motivation has been simple and compelling: declining funding means scarcer office support, which means more academics have to do their own typing and formatting (many have become highly keyboard-literate as a response). In addition, editors are requiring higher presentation standards in submitted manuscripts; and many (especially smaller or newer) journals and conference proceedings are now printed from camera-ready copya situation which will also obtain, in electronic format, with *TESL-EJ.* To win acceptance the author has to deliver copy of adequate quality. This does not alter the fact, however, that many authors are indifferent typesetters.

One approach to this problem in electronic journals has been taken by *EJournal.* Here distribution is in plain ASCII, and contributors […] control and [are] responsible for, final copy (Jennings, 1991, p. 96). There are several reasons why *TESL-EJ* should not follow this model: first, because *EJourna*l was a forerunner, and one in a new inter-disciplinary area, where it was [-27-] able to set some of the rules itself; second, because many of the characteristics of professional text in the ESL and Applied Linguistics areas include tables and graphics, a necessary facility for publication in these areas; and third, because there are already journals in the area targeted by *TESL-EJ* which have high and respected standards of production. *TESL-EJ* could not afford to look less professional.

As a result, *TESL-EJ,* following the lead of other journals which work from camera-ready copy, will have document templates for authors, where page formats, conventions and

layout will be provided in a template which is at once a dummy document and a set of instructions. The template, delivered either on disk or through the network, will help to ensure uniformity of presentation, at least to a significant degree; the final document vetting and tuning will be the task of the Technical Editor, who will have input to the shepherding process as papers approach final submission. The Technical Editor will also be responsible for depositing the documents in a format like Postscript as each issue of *TESL-EJ* is formally published to the network. While authors will continue to have a major responsibility for the quality of both their work and its presentation, therefore, there will be ample support and advice, which will in turn help to raise the editorial standards of the community of authors. It is still possible, however, that even these standards will deter some authors from offering papers to *TESL-EJ,* and they will seek more conventional outlets for their work for reasons which are technical rather than intellectual.

5.7 Speed kills?

In a series of arguments concerning what he calls the chronobiology of human communication, Harnad (1991) has proposed that the invention of writing slowed down processes of thought, and printing slowed them still furtherwhile at the same time, of course, progressively increasing the ability of thought to be archived and distributed. In Harnads view, the Net will have the effect of bringing the speed of scholarly thought back towards real-time interaction:

> *The goal is something in between: much faster than paper-mediated interaction, but not as fast or unconstrained as oral dialogue. (Harnad 1993b)*

Quinn (1993), however, takes the opposite view: that the frenetic speed of communication on the Net will harm scholarly interchange: not only will scholars disseminate (not publish) prematurely (disseminatio praecox?), but the speed of interaction will be such that their ideas will not have appropriate time to settle and mature. Garfield (1991) expresses the view that intellectual work needs time to settle into its final form, and that the sometimes frenetic [-28-] speed of communications on the Net can indeed act against the interests of the productive maturation of a paper for publication. There is some wisdom in this caution. The desire to establish prior rights to an idea, and the sheer convenience of the Net, can encourage preliminary dissemination of research for comment. There is little real danger so long as dissemination is not confused with publication. It can be a boon to have ones ideas exposed to public comment before publication, and in this respect the Net can function like a departmental seminar or a forum for working papers. The keyas Harnad has argued on many occasionsis to distinguish sharply between dissemination for comment on the one hand, and refereed publication through the Net on the other. Seen in this light, the Net is merely a facilitator for scholarly comment on maturing ideas, which should offend no-one.

Harnads position is that we can allow the Net to work as quickly as we wish. The peer review process still interposes a period for reflection and reassessment, and in any case journals like *TESL-EJ,* with a periodicity of 3 months, will certainly allow ideas to cool sufficiently for objective evaluation. The other factor is the interplay between speed and scholarly interactivity on the Net. Ideas in the first rush of creation can be exposed to peer comment through the scholarly skywriting process, whichin Harnads version

in _*Psycoloquy*_ has its own peer review controls on quality. Scholarly skywriting ensures both sufficient quality and security for the authors in the discussion phase, so that when the idea is ready for submission to a formal journal, whether paper or electronic, it will have been sifted by almost identical processes, albeit at accelerated speed in the electronic case.

6. Ambivalent Factors

6.1 Libraries

In the future prospects of electronic journals, the most uncertain factor probably concerns the way in which libraries will handle electronic journals in future. Recent discussions on the listserv group PACS-L have shown that libraries are acutely aware of these issues. But unless and until some consensus emerges about how to address access to electronic journals, archiving, network-wide data-searching, and issues like hard-copy formats, electronic journals will risk having a short half-life in the world of the library.

These issues have not yet reached their full dimensions, since the existing electronic journals have tended to be for university audiences. This means that both authors and readers have usually had the access they need in order to read, retrieve information, and manage their use of electronic journals. To be sure, the level of access, and the reliability of the links, have been uneven: from [-29-] stable access in highly interconnected developed nations, to sporadic, difficult or downright impossible in developing nations. *TESL-EJ,* however, looks like an electronic journal with some new propertieswhich may, because of the way in which they focus attention on some of the weaker aspects of the current handling of electronic journals, provide a catalyst for some urgent rethinking and policy changes in the library systems.

In countries like the U.S.A. commercial providers of network access, particularly large organizations like CompuServe, are already going a long way towards overcoming this problem at acceptable levels of technical expertise and cost-effectiveness. Many countries of the developed world have educational networks, which in principle bring network access to schools and trench teachers and a wider audiencealthough not always with the kinds of access levels of mainstream network-based resources that one would wish. That said, however, it is still clear that the majority of ESL/EFL teachers will find it difficult to access networks for *TESL-EJ,* and in many countries this will affect the overwhelming majority of teachers and students.

It is for this reason that the issue of access through libraries and other information-connected outlets is particularly critical in the case of*TESL-EJ.* The editorial board had a number of possible models to follow in the matter of copyright policy, and it chose one of the most permissive. In essence, anyone receiving *TESL-EJ* is actively encouraged to copy and disseminate it, provided only that the journals masthead and copyright attribution, printed at the top of each page, are not separated from the copied text; the usual restrictions on republishing and commercial usage apply. We expect that there will be numerous electronic and paper copies of *TESL-EJ* in circulation, and this is very much in harmony with the editors view of the audience *TESL-EJ* should reach, and the ways in which it should try to reach it. The open invitation to copy and disseminate should work well within education systems at many levels (schools, districts, education ministries)

where some centrally placed person has network access on behalf of those who do not. But there will still be many ESL teachers and students who will not have the convenienceor even luxuryof this service. This is where the libraries have to play a fundamental role. It will be common and proper for ESL teachers and students to wish to access *TESL-EJ* from their local institutional or public library; to scan the librarys regulation mailing of the title page and abstracts of the current issue; to download, read and copy (on disk or paper, at a nominal cost) articles of interest; to search and download articles from the *TESL-EJ* archives; and generally to use the library as a network resource in the same way as their more fortunate and fully networked colleagues in academic institutions.

Many libraries, particularly non-institutional libraries, are simply not well set up at the present time to handle this kind of [-30-] demand. They lack equipment; regular and affordable network access to a convenient gateway or server for library systems, like the major public library in a regional centre; trained staff to provide guidance and support; and the archiving capacity for recent issues and documents which will be part of the basic support systems at individual nodes for journals like *TESL-EJ.* And yet this requirement is neither very revolutionary by technological standards, nor outrageous in terms of the kinds of information storing, retrieval, archiving and accessing which are routine work for any good library. *TESL-EJ,* to be sure, does have an unusually wide target audience. Initial subscriptions will probably focus on the current subscribers to mailing lists like TESL-L, who numbered 2,509 in January 1994. But the scope of *TESL-EJ,* its range from pure to applied research and trench-teaching, will surely make this figure grow quickly, particularly in view of the global role of English and the educational, cultural, scientific and commercial imperatives for teachers, students and policy makers to keep abreast of what is current in ESL. On the back of *TESL-EJ,* what is current is going to move with increasing speed, so that paper journals in the field (see above or below) will find it difficult, or inconvenient, or both, to compete.

The library issue is one where *TESL-EJ* could encounter a significant obstacle. If the libraries and commercial network providers respond, the stimulus and catalyst provided by *TESL-EJ* could become one of the first of a new generation of information dissemination and sharing programs using global electronic networks.

6.2 The publication issue

Perhaps more profoundly ominous, though less widely realized, is the impending crisis in academic publication. This crisis has been approaching for at least a decade, and within the next five years will almost certainly reach a point where major decisions of policy will have far-reaching consequences. The argument rests on a simple supply and demand nexus. There are now more academics than ever before, trying to publish their work for the purposes of appointment, promotion and tenure as well as to further knowledge (which is the uppermost motive is irrelevant: what matters here is the volume). The world-wide recession is causing university budgets to shrink, at the same time as governments and funding agencies are increasingly insistent that the work they fund should have either social or economic relevance, or both. The result is increasing publication in applied and mission driven research, and new needs for new outlets.

In this context libraries cannot cope. A great deal is regularly written about the library crisis, mainly by and amongst librarians, and in a way which is not readily appreciated by their major clients in the academic departments. A recent study by the [-31-] Triangle Research Libraries Network group (TRLN, 1993) has defined the issues neatly. Since the costs of journals, and the numbers of new journals are increasing at rates far in advance of inflation and budgets, libraries are not only buying fewer journals and cancelling existing subscriptions, but they are also redirecting funds from monographs to pay for serials. In terms of the pressures of supply and demand,

> *The unrelenting growth in both numbers and prices of scientific and technical journals has also exacerbated distortions in the general economic marketplace for research information. This marketplace, unlike the free market ideal posited by economic theorists, is characterized by producers (academic researchers) who give over gratis, through copyright transfer, the ownership of their products (journal articles) to sellers (both not-for-profit and commercial publishers). Publishers, in turn, cover costs or earn profits by selling, not primarily to the ultimate consumers (other researchers and their students), but largely to public or not-for-profit agencies (research libraries) who are responsible for organizing, storing, and providing free or low-cost access to these products [...]*
>
> *An increasing percentage of scientific and technical journals are now published, not by professional societies and universities, but by a relatively small number of very large commercial publishing conglomerates, many based in Europe. At the same time, the subscriber base of many of these journals has shifted so that it is now almost exclusively research libraries rather than individual research scholars. And, as many economists have noted, this growing for-profit journal publishing industry presents almost ideal conditions for an effective monopoly:*
>
> *A. Libraries are reluctant to cancel subscriptions when the prices go up (they have a low price elasticity of demand for these products) because there are few if any alternative sources for the information contained in each journal.*
>
> *B. The small number of publishers relative to the number of library subscribers permits more control of supply than in a more competitive industry.*
>
> *C. Many opportunities exist for price discrimination, between institutions and individuals as well as between U.S. and European subscribers, based on differing price elasticities of demand and currency fluctuations. [-32-]*
>
> *Feeding this publishing industry is an academic tenure and grants system which rewards researchers with grants and career advancement when they publish large numbers of papers. [...] In trade and mass market publishing, both authors and publishers feel encouraged or constrained by the forces of the economic marketplace; both recognize the potential value of profits to be earned from sales, future film rights, etc., with these intellectual properties. Thus, authors in this more commercial environment reasonably transfer only limited rights to publishers and negotiate royalties. By contrast, in scholarly journal article publishing, authors do not assume they will earn any direct economic rewards from their articles, so they make a*

contribution to the literature by freely assigning all ownership rights to publishers. (TRLN, 1993, pp. 5-6)

The TRLN group is particularly severe on the for-profit publishing houses, whom they see as serving needs other than those of the disciplines which they purport to support.

In order to secure the three key parameters of scholarly publishingcertification, archiving and accessthe TRLN group proposes that libraries and research universities would be the primary locus of publication, with a major part of that publishing as a preferred means. Some publishers would be licensed to publish special kinds of works in designated for-profit niche markets. Academic researchers would retain copyright to their work (or, as Okerson (1991) puts it, copyright might be replaced by various kinds of licences).

These suggestions are radical andfrom the point of view of the for-profit commercial publisherspotentially apocalyptic. On the other hand, the libraries and research-supporting agencies are clearly within at most several years of crisis point, where they will no longer be able to fund enough purchases from the expanding market to justify the publishers investment in publishing all but larger volume or higher-profit items. There is a potential collapse of scholarly publishing in sight, and the TRLN groups proposals constitute an attempt to repossess the initiative in the places where the research is both produced and consumed.

In a context like this *TESL-EJ* finds a natural role. As an electronic journal distributed free it will make not unreasonable demands on library resources. Its publications will occupy no shelf space and will require no binding, and managing access to it will probably be less onerous and costly than for paper journals. Given that such major parts of library budgets are staffing costs, a widely circulating journal which offers broad access and relevance with minimal handling and maintenance costs in people-salaries can only be welcome. Electronic journals are not entirely free of staffing demands, of course. But if where 15% of subscriptions to a [-33-] paper journal are currently personal and 85% library-and institution-based, in the case of electronic journals the proportion could very well be reversed. And because of the convenience of accessing journals from ones own computer account, more people will read the journal than is currently the case with paper publications. This does not absolve the library from providing access to the electronic journal, holding sufficient electronic archives or at least access to them on the Net, and so on. But it could well be that one library per country, or per state (depending on usage and network traffic) could hold the full set of materials, and other libraries would merely provide terminal access and printing, just as they now do in many countries for franchised bibliographies like Current Contents. In other words, the infrastructures of hardware and advice are already in place, or are within effective and low-cost reach. As Rooks puts it,

Today, a growing body of citation, full-text, numeric, and statistical databases are available to the user without ever entering the hallowed confines of a library building. Just think about it: no freeway gridlock; no parking hassles; no opening or closing hours; no missing, lost or misshelved information; and no due date. What a world! (Rooks 1993, p. 23)

In a context where libraries are cutting monograph orders to meet journal requirements, and then cutting journal subscriptions as well, electronic journals with their low cost structure and capacity to reach readers outside the physical confines of the library will be

an attractive proposition indeed. It is also likely, in such a context, that increasing numbers of authors will seek to publish in blue-chip electronic journals as a means of ensuring the widest possible dissemination of their ideas. World-wide publication plans of under 1,000 copies of monographs, and under 1,000 subscriptions to journals, as is now common with commercial presses, are hardly likely to provide maximum exposure for research.

There are two further key issues in the relation of paper publishers to the emerging electronic publications.

The first of these issues concerns what is already, in many cases, a fait accompli: double publication. Many scholars now distribute working versions of papers through the Net, with an invitation to colleagues to comment and criticizewhether in Scholarly Skywriting mode or not. This strategy is apparently a win-win situation. The scholar is able to lay claim to ideas, discoveries and progress as early as possible and in a very public way. Incoming criticism can only improve the paper, and is properly acknowledged, so enhancing the collegiality of the community of scholars. This is dissemination rather than publication, and most scholars are scrupulous about the distinction. Some institutions, like the Stanford Linear Accelerator, has been receiving and distributing pre-print versions of articles in high energy and [-34-] theoretical physics for a number of years. As the articles are published the pre-print text is replaced by a formal citation. 200 articles are added every week, and the full data-base now contains more than 200,000 citations (Okerson, 1991).

There is nonetheless a down side to pre-or double-publication. There is an element of risk for authors, particularly if the paper is immature, incorrect or otherwise faulty, since they risk public ridicule. This is the self-correcting nature of the Net which Harnad (1993a) emphasizes with such assurance: public peer commentary, after all, is another form of peer review (Mahoney 1985). The other problem concerns publishers, especially commercial publishers, who can hardly want pre-publication alternative copies remaining available when they finally print the authorized version. In principle, authors would probably be happy enough to delete the pre-publication version on formal publication in a paper (or, for that matter, electronic) journal. But by that time there could be many copies of the earlier version loose on the Net. And while formal citation will require reference to the refereed version, it is already common for authors to cite pre-publication papers, particularly in areas where ideas are moving fast. This is not the case in mathematics (Franks, 1993), for instance, a discipline where the refereeing process is scrupulous and painstaking, and where the integrity of the published article is held in particularly high regard. But it is certainly the case in many other disciplines, includingaccording to Frankstheoretical physics. And as quality papers start circulating around the Net for early comment, scholars who wish to maintain an up-to-date reputation in their work will have no option but to cite from these pre-published sources. They will also have to be particularly scrupulous to update their apparatus criticus in order to be sure that they cite the latest official information, whether pre-publication or post-publication, on each item cited. These solutions are the least that would be required. They do not overcome a significant duplication of distribution/publication. But it is difficult to believe, given the convenience of the Net for distributing drafts for comment, that scholars will forego such an excellent chance to debug their papers before offering them for publicationand this without risk of losing credit for their discoveries.

The second issue, one way or another, is the matter of money. The current situation, as Okerson sees it, is anomalous. Most universities are publicly funded. They publish only about 15% of the work which they fund, with 85% going to commercial publishers. Buy buying periodicals from these publishers the universities are paying again for the privilege of having access to research which they funded in the first place. Journals also benefit from a great deal of free work from academics acting as editors and consultantand, more recently, as typesetters of their own work. This gloomy view, of course, is not quite fair, since the publishers are providing a service which the universities have been unable or unready to [-35-] provide. But this kind of argument, and the raw figures which dictate what periodicals libraries can afford, are starting to prompt thoughts about alternatives among people like Okerson and Harnad. One strategy is simply to push for electronic journals. Schools and colleges that cannot afford journal subscriptions might well put the money to electronic access, given the many other benefits that come with access to the Net. Users who cannot travel easily to a university library would also favour this kind of access.

The publishers reply is that the real costs of electronic journals (Harnad, 1993b) are probably 70%-80% of the cost of paper journals anyhow, and that if there is to be a transitional period in which paper and electronic media run in parallel, the total cost will be much higher than present costs. Harnads (1993) figure is between 20% and 30%. To be sure, academics are exploited for free labour in electronic journals too (see #3.2 above)often more so, since editors of non-association and non-institutional journals like *TESL-EJ* can expect no subvention from a publisher to help cover their release from other duties. But as Jennings argues (1991, p. 103), many academics would welcome the appearance of freedom in a journal which is not tied to the editorial policies, and possible commercial pressures, of a publisher who has to make a profit. Harnads suggestion is that in return for free journals, the universities as providers of the research might pay for the cost of journal production. The universities would save significantly, and would retain greater control over the product.

Harnad has suggested that the main funding priority at the present time is keeping the paper flotilla afloat during the transition to full electronic publishing. This view is striking, but surely premature. Paper journals are so far showing no signs of diminishing and there are not enough fully professional electronic journal initiatives like *TESL-EJ.* As a result, the publication issue remains an uncertain factor in the future of electronic journals. It will doubtless, however, provide both radical and searching controversy over the next decade. There will certainly be difficult issues in the conversion of pre-electronic texts to electronic format as the electronic archives are extended to incorporate more of the recent history of disciplines. *TESL-EJ,* being (for the moment, at least) in the happy position of being beholden to no publisher, should be able to view the struggle with equanimity from a safe distance. The main dangers would be a radical change in library policy against access to electronic journals, which seems unlikely; or a major shift into electronic publishing by leading-edge publishing houses, which looks probably but still some distance awayalthough, as Okerson notes (1991, p. 12), most western journals are machine-readable at some stage in their editorial process, at least in authors word-processed manuscripts, so implementing electronic production could be less problematic than many commercial publishers currently seem to think. If *TESL-EJ* is [-36-] wise, it will establish a leading position well before serious electronic competition can be mounted. An alternative,

suggested in a slightly different form by Dougherty (1989), is that since university libraries are our major archiving instrumentalities, they should take over the role of anchoring electronic journals like *TESL-EJ.* This would reconfirm the nexus between scholarship, publication and archiving (see below), and would help unhoused journals like *TESL-EJ* to find a stable, respectable and collegial homeone which, for instance, would be a continuing factor even as editors and editorial boards come and go. And since libraries are one of the key custodians of the distinction between published and unpublished material (Quinn, 1993), they would be in a position to help to maintain the key structures of academic publishing. Recent initiatives announced by the Association for American University Presses and the Coalition for Networked Information (*Chronicle of Higher Education,* January 26, 1994, p. A24) show promise: 13 college and university presses are collaborating to put a very significant amount of information and books on-line in the context of a coordinated library initiative to ensure integrity and access to the information.

6.3 Career tracks

If the library issue concerns information dissemination and access, the question of academic recognition addresses the supply side of *TESL-EJ* and the relation of publication in *TESL-EJ* to the key factors in academic careers of appointment, tenure and promotion. Electronic journals like *Psycoloquy* have shown that a professionally run, fully refereed electronic journal can indeed command high respect for academic career pathsperhaps not yet as high, at least so far, as publication in the top paper journals, but definitely respectable and respected. The problem with *TESL-EJ,* however, is exactly what we would expect with a new journal: though the editorial board is as strong as any in the field, it will take time for authors to orient their publication schedules and strategies to the new journal, especially since a good number of them are known to be resistant or reluctant to using electronic networks. Such attitudes, however, appear to be dwindling. The students now coming through the postgraduate programs in ESL and Applied Linguistics are increasingly expected to be competent in network use and exploitation, and as they fill the senior positions in the profession their network literacy will surely be reflected in the relative load of intellectual penetration carried by electronic vis-a-vis paper journals. Network literacy, of course, is not the same as choosing to publish major papers in electronic journals. At the present stage the editorial board, and the early contributors to *TESL-EJ,* are lending their reputations to the new journal. Its success will depend on its ability to attract a sufficient share of quality ideas for it to establish and maintain a leading position, [-37-] and on the quality of the leadership given by the editor and the editorial board in bringing this about.

6.4 Effect on existing paper journals

Existing paper journals will doubtless sit out the first couple of years of electronic journals like *TESL-EJ.* They can afford to. If *TESL-EJ* is not a success, they still have time to develop a policy on the relation of paper to electronic journals, and especially on the preservation of their commercial position in the integration of electronic distribution into their publishing policy. It is no secret that major publishers in the field of ESL and Applied Linguistics are currently evaluating the likely effect of electronic publishing on their policies and practices. Few are yet venturing into the field, for good reasons: there are legal minefields in the copyright area, and questions of access, document retrieval, payment and royalties will all

have to be thought through in a sensible and measured way to protect not only the interests of the presses, but also the standing of the journals, the quality control issue in the publicizing of the discipline, and the proper rights of the authors.

What is less obvious is the effect which the appearance of *TESL-EJ* will have on the established paper journals. One would anticipate, at the very least, that *TESL-EJ* will bring forward the moment of decision for the policy-makers in the major publishing houses about their move into electronic publishing. Probably the trickiest issue is balancing paper and electronic delivery as a parallel or either/or choice.

Major journals, particularly those associated with associations who are able to derive income from subscriptions for membership, could probably move into electronic publishing fairly rapidly, borrowing from the already substantial body of knowledge on which the present paper has also drawn. It is doubtful whether any of these journals would wish to change their current profile as a result of the presence of *TESL-EJ,*for *TESL-EJ* has an unusually broad coverage from pure to applied research, from theory to materials development and methodology, and from tertiary to primary. It would not be surprising to see TESOL Quarterly moving into electronic publishing. *TESL-EJ* is not specifically targeting any particular paper journal or niche market, although some journals *TESOL Quarterly* and *ELT Journal* inevitably come to mind-will probably find more overlap with *TESL-EJ* than others. Unless *TESL-EJ* has badly misjudged its role and modus operandi, it should be a solid success. [-38-]

6.5 Effect on existing associations

TESL-EJ is a community of scholars joined by a common interest and commitment. It is not an organization, and has no press nor association behind it. As such, it should not challenge the membership of existing associations, since it is an addition rather than an alternative; since it does not seek an adversarial position vis-a-vis any existing association; and since it deliberately does not offer many of the benefits which membership of those associations provides.

On the other hand, there is a distinct possibility that *TESL-EJ* will be either a wildcard, or a maverick, or both. Its effect on existing associations, and on the topology of intellectual associations in our disciplines in a wider sense, is largely unpredictable. Some smaller associations, finding it difficult to launch or maintain journals, may even channel their work through *TESL-EJ* precisely by virtue of its uncommitted stance among the professional associations.

6.6 Effect on the dynamics of the discipline

If the emergence of *TESL-EJ* will have some effect on professional associations, it will certainly, in a number of fundamental and probably unpredictable ways, affect the dynamics of the disciplines.

ESL is not a discipline, but an intersection of disciplines. The speed and strength of the recent growth of ESL show a substantial focusing of interest, particularly when we compare it with non-English language learning and teaching. This focusing effect has been enhanced by the introduction of electronic networks, though they have not yet penetrated throughout what one might call mainstream ESL. Those particularly affected include ESL

practitioners who have access to the networks, and who subscribe to the mailing list TESL-L and its daughter lists. Another group of ESL network users are those who are running writing and similar projects on the network. In these areas we can see the predictable phenomena of the increase of speed of communication, enhanced levels of interaction and the neutralizing of geographical boundaries. In addition, we are beginning to observe the flattening of hierarchies, which has been evident in organizational and corporate users of electronic communications for a number of years. In electronic contexts the office boy can email to the Managing Director as easily as can the General Manager. In an academic discipline this means a weakening of the boundaries between teachers and students, researchers and assistants. In academic publishing it leads to a functional lessening of the stratification and separation between editors, editorial board members, authors and readers. As a result, we can expect a closer nexus between discoveries and their [-39-] critiquing and application, and in the verification and testing of ideas. Without quality control on the publication of these ideas, as we have seen, we would be pushed back into a more stratified mode of publication like that proposed by Harnad (1990). With quality control, however, the dynamics of the discipline will certainly change, be enhanced, enriched and accelerated.

There will also be other de-structuring effects from the presence and activity of *TESL-EJ* on the Net. One of these will be the weakening of the dichotomy between discussion-dissemination and publication, as we have seen, in favour of a continuum as scholarly skywritten papers approach the maturity of published pieces. Refereed, in other words, is not a binary but a gradient value. Similarly, there may well be a blurring of genres of publication, particularly in the nexus between article and discussion, and between monographs (say, over 80,000 words) and articles (say, up to 10,000 words), since the electronic media can handle manuscripts of any size or format. Another probable effect could be the lessening of the monolithic authorial presence now found in journal papers, in favour of a more collaborative, and often mixed-author and author-audience approach, as scholars engage more in constructing knowledge collaboratively.

It remains to be seen whether electronic journals actually accelerate the progress of knowledge. But they will certainly increase the volume of scholarly dialogue.

6.7 TESL-EJ and Computer Supported Collaborative Work

Many of the shortcomings of distance-collaborative learning and research have been remedied, to a notable extent, by the introduction of electronic networks, and particularly user groups and mailing lists on networks like Bitnet and the Internet. Geographical space has become practically irrelevant. Time restraints have either been reduced, as with electronic mail postings; or mainly erased by software packages like UNIX Talk which enables real-time interactive communication. Software like UNIX IRC (Internet Relay Chat) allows virtually real-time conferencing with multiple participants, limited only by the speed of the networks and the interconnexions, and the capacity of the various host computers to allow links to the host computer running the IRC program.

In spite of these great gains, however, the space-time factor is still at work, since colleagues at other locations, and/or in different time-zones, are not part of ones immediate collegial work-space. Remedying this problem is the domain of a new discipline called collaboration

technology, and most specifically computer-supported cooperative (or collaborative) work (CSCW) [-40-].

CSCW has attracted urgent and well-funded interest from major corporations like IBM, Hewlett-Packard, the military, and scientists and policy-makers in the European Community for obvious and pressing reasons: if a workforce is distributed across multiple locations, there are inevitably major losses and inefficiencies in the form of duplicated work and management. How, then, can one make the multiple workplaces function as a virtual one-space facility? In other words, how can electronic networks be used to cancel out the effects of the space-time discontinuum?

CSCW has already spawned a series of sub-domains. One involves distance learning and collaboration of learners, and learners with teachers, across distance (Collis, 1993; see also Wilson, 1991). As part of a growing concept of integrated computer-based and computer-mediated learning, where standalone workstations are networked to global resources, this model has tremendous potential. On the other hand, the networked conferencing and advisory models of network use, which are typical of listserv-supported mailing lists like TESL-L and its daughter lists, are closer to the areas of CSCW relevant to *TESL-EJ.* TESL-L promotes fast interchange of information in an unstructured and unmoderated forum. Requests for information, supply of information, announcements and so on are automatically distributed to the subscribers. The collaborative nature of the work of TESL-L, however, is limited by a number of factors: time delays between transmission and the response, caused by time-zone differences, and when the recipients log on; by the open nature of the list, whereas genuine cooperative work requires a more focused working context; and by the depth and complexity of information which can be effectively developed in a channel where high volume and highly varied information is characteristic of everyday interactions. *TESL-EJ,* in this context, is likely to have a moderating, and to some extent regulating, influence on the development of ideas. The time-delays between submission and publication, caused partly by the refereeing process and partly by the quarterly periodicity of the journal, will allow an interval for ideas to gel. Its adoption of standards for indexing and keyword-references will have a focusing, and to some extent centralizing, influence in terms of epistemological maps. Its work will be more structured than that of TESL-L, more directed, and possibly also more directive. But it will also form part of a forumnot a continuum, since there is an organizational discontinuity between a mailing list and a refereed journalwhere the increased interactivity must surely continue to give rise to those serendipitous occasions from unanticipated contacts of people and ideas. *TESL-EJ* is itself the result of such an event.

7. Future Perspectives

While predicting the future of *TESL-EJ* is probably risky, given the many variable factors in this new enterprise, some issues [-41-] can be plotted with tolerable confidence. Most of them represent developments or extrapolations from other electronic journals or other areas of electronic network activity. They amount, one way or another, to tactical decisions about how best to position *TESL-EJ* as a journal and as a component part of its disciplines.

7.1 Format of the journal

If *TESL-EJ* is to be delivered as coded files ready for unpacking into high-quality output, why stop at text and graphics? Electronic networks are able to carry digitized sound as well as text, so there is every reason why *TESL-EJ* could distribute audio files to support the articles: an argument plussaysupporting phonetic evidence, speech samples, and so on. Macintosh computers have what is now a standard audio interface, and it would certainly be possible to select a small number of supported formats and A/D (analogue/digital) formats for DOS machines. If we can contemplate audio, then distributing software is also feasible, since this already happens, for instance, after TESOL meetings. We can also contemplate pictures in colour. Before this happens there will have to be a decision about recording, coding and playing formats. But in principle transmitting colour images and video over the networks in binary code is a matter of bandwiththe capacity of the network to carry the very large amounts of information required for such files (for instance, a colour television picture requires about 7 megabytes of bandwidth). With these additions *TESL-EJ* would become even less like a contemporary paper journal, and more like a networked encyclopaedia, particularly since the audio and video files, in addition to the archived text files, would become in time a major archive in its own right.

7.2 The virtual library

This is where the concept of the virtual library (Rooks, 1993) becomes relevant. A virtual library is one which does not require the user to be physically present in order to use its facilities. Several projects are already under way in the U.S.A. to explore the design and operation of such a distributed library system: at Carnegie-Mellon University and OCLC, under the name of the Mercury Electronic Library (Arms et al., 1992); the CLASS project, a collaborative venture by Cornell University and the Xerox Corporation (Cornell/Xerox/CPA, 1992); and the NCSU Digitized Document Transmission Project (Casorso, 1992). In Europe the enormous Bibliotheque de France project aims to provide electronic access to 350,000 works of text data, as well as a family of software tools for indexing and investigating them (Virbel, 1993).

In many ways the virtual library appears to be a matter of scope rather than essence: much of the technology is already [-42-] available. In such an environment *TESL-EJ* will not stand alone, but will be integrated with other machine-accessible sources. Paper journals, like monographs, tend to be single self-contained entities. But a machine-readable journal accessible through electronic networks is potentially capable of interfacing with wider organizations of data. The tools to search them will include gophers or systems like World-Wide Web (see the paper by White in this volume), which conduct the search for the user without requiring him/her to know where to look. On the other hand, even these tools are still primitive in their capacity to handle the question of how to look, and their key-word searches not infrequently either fail to find a match for trivial reasons which may not be revealed to the user; or find so many matches that the user has no useful clue about where to start sifting the retrieved information for usable material. What is needed is winnowing softwarealso known as profiling, a technique that is being developed primarily by advertisers to deliver informationto help the user with information-navigation in the virtual library. Text archives like *TESL-EJ* will involve information of at least of three types: abstracts, citation and full-text, not to mention audio and video. Indexes will have to be

supplemented with intelligent software tools for searching them, and for helping the user to define a feasible search strategy, since the volume of available information will be so vast, and the numbers of successful hits from even discriminating queries will be so large, as to discourage users, or at least to make their tasks impossibly complex and long. Users of current indexed information will be more than aware of these limitations when searching library catalogues and data-bases. That said, however, it is no reason to draw back from the challenge. The task will have to be attempted, and successfully, if we are to make any sense out of the increasingly overwhelming volume and variety of information which is relevant to the cultivation of even narrowly defined intellectual pursuits. Once again, however, the necessity for tackling this problem will be amply evident to anyone reading the current literature on ESL or language acquisition. Here *TESL-EJ* is not even breaking new ground. Ideas on integrated knowledge environments have been discussed by scholars like Gardner (1990), and the American Physical Societys Task Forces Report on Electronic Information Systems, discussed by Harnad (1992), has considered this initiative from the point of view of a large learned society.

7.3 TESL-EJ, writing and hypermedia

As we have indicated above, opening *TESL-EJ* to active and ongoing reader participation may lead to a change in the epistemology of ESL and the ways in which texts and knowledge are negotiated, created and elaborated. While a conventional paper journal usually allows limited interactivitythe journal *Behavioral and Brain Sciences* is a notable exceptionthe electronic journal is the genre where the monumental qualities of the paper journal can effectively be combined with the flexibility and interactivity of computer networks. In so doing, electronic journals make possible an intriguing, and potentially radical, linkage of academic publication, literary theory and writing. Readers will be allowed to comment on papers, and these comments will be published either with the papers, as with the paper journal *Behavioral and Brain Sciences,* or later, in a section like the Supplement section of *EJournal.* We have, as a result, a negotiated, constructed discourse in which the monolithic author is replaced by a plurality of authorial contributors. Readers are part of the writing processJennings (1992) calls them wreaders in a [-43-] way which recalls the work of Foucault and particularly Derrida (Landow, 1992; see also Bolter, 1991, and Delany & Landow, 1991). More yet: the process of writing is not purely linear, as in traditional text, but more like hypertext, where various contributors submit text and link it in various ways to other texts (called lexia in Landow, 1992), as in hypertext. Single or shared authorship, then, may remain in an electronic journal. But it can also be transformed into a mode of writing and collaborative authorship which is much more distributed and collaborative.

This possibilityan option, not an obligation, as Harnad insists (1993) in relation to other properties of the Netopens up yet another avenue for electronic journals. Some academic conferences, particularly in areas as populous as ESL, are starting to become so large that the meaningful negotiation and transaction of ideas is severely constrained by the simple problem of the management of size. For this reason many leading scholars avoid large conferences in preference for smaller, more focused conferences and workshops, where the density of expertise is greater per capita, and the inconvenience of size is less pressing. The social and collegial benefits of both large and small conferences, though different in

kind, are often comparable in quantity; but the work possible at small conferences is of a different order. Consider now the electronic journal, which is able to handle wide-band or narrow-band communications, at the specification of the participants. It is interactive; it can be focused or open-ended; it is, in many respects, like a conference without the face-to-face contact, but with the advantage of greater potential direction of effort than is possible in many large public gatherings. In other words, the interactive mode of the electronic journal could complement and supplement the academic conference. Note that I am not suggesting that the electronic journal should supplant the conference. There are still many things which can only, and best, be accomplished through personal contact and group meetings in a single location. But in terms of the collaborative advancement of knowledge, and in the provision of a quick and flexible interactive context, the electronic journal can provide a rich and powerful medium. In so doing it helps to link very different discourses, whose heterogeneity has hitherto been a characteristic of academia, [-44-] like the monolithic journal author, and interactive and negotiated dialogue at conferences. Exploiting these potentials to the full is not simple, unless we can overcome what the Australian historian Geoffrey Blainey has called the tyranny of distance (Blainey, 1966). Blainey was thinking of the effect of distance on the conceptualization and history of Australia; the phrase could as well apply to the shibboleths which the Net may help to overcome in the relation of distance to intellectual endeavour.

8. Conclusion

TESL-EJ will be trying to take the best of each of the formats and delivery systems on offer. It aims to emulate the key features of a paper journal, particularly its quality control through editing and peer review, at the same time as it exploits the potential of the Net to create a new kind of journal in the ESL area. We have described some of the parameters which *TESL-EJ* could exploit. But the journals policy is far from inflexible, and part of its mandate is to respond to the changing needs of the discipline, the researchers and its audience. It is very likely that in so doing it will change the nature of its audience, which in turn will again affect the concept and operation of the journal. *TESL-EJ* will almost certainly discover roles in its relation to the discipline which are hardly visible to us at this stage. Electronic journals in the 1990's are something like trojan horses, the test instruments for exploring new interactions and interfaces between humans, knowledge and electronic media. There is no doubt that electronic publication is about to undergo an far-reaching revolution at the expense of paper publication. The disciplines included within ESL will be prepared for these changes by journals like *TESL-EJ.* The Working Group and editors of *TESL-EJ* have positioned the journal as flexibly and as favourably as possible on the varied map of electronic network media.

We have discussed at length in this paper (on reflection, can one have a paper in an electronic journal?) the relation between the technicalities of the Net and the intellectual needs of the producers and consumers. The underlying issues, of course, are even bigger than these, and have to do with what Harrison et al. call the sociology of a discipline, and which I would prefer to call its socio-epistemology (and see Mahoney, 1985). We are dealing here with the ways in which knowledge is discovered, discussed and disseminated. Not all disciplines do this the same way. We have seen, from Franks (1993) arguments, that mathematics has an exclusive view of publication: published work can usually be trusted,

because the peer review process is exceptionally painstaking. Some other disciplines are happy to publish work which is theoretically or empirically less rigorously grounded, because it opens new doors or explores new issues. *TESL-EJ* will be responding to two partly opposed tendencies. One is a movement, which I can [-45-] report only impressionistically, that ESL in particular, and applied linguistics more generally, are becoming more like the core social, and to some extent the natural, sciences in their publication methodology. There are more multiple-authored papers; methodology and theory are becoming tighter, but also more closely linked to work in neighbouring disciplines; citation indexes appear to show more reliance on the periodical literature, and less on monographs. On the other hand there is the liberating effect of the Net, with more publication modes and more levels and ways in which knowledge can be reported, negotiated and published. It is not yet possible to hazard even a preliminary guess at the outcome of the confluence of these tendencies. I would like, however, to propose three issues which seem to me to be indicative of the kinds of problem which we are going to have to face.

The first concerns the negotiation of knowledge in the discipline. ESL is inherently multi-disciplinary, so that there are scholars within the ESL field whose domains of specialization, whose research paradigms, and whose reading schedules, may overlap to only a limited extent with those of other scholars. In such a field the inter-disciplinary perspectives become a major factor. It is not enough merely to provide access to materials in the relevant neighbouring disciplines or sub-disciplines (and remember that one of the outstanding properties of the Net is that is makes more scholarship available, more easily and readily, than any other medium to date). Rather, those in the inter-disciplinary areasfor instance, cognitive psychology, language learning and cognitive science in their intersection with ESLeither have to forge the inter-disciplinary links and bridges themselves; or the discipline has to help them to do it. ESL is already in danger enough of fragmentation, because of its unusually large spread and its disparity of component parts. Leaving the creation, maintenance and updating of such bridges to individuals, to be repeated many times over in many slightly different variants, is both wasteful and potentially unproductive. While each reader, and each researcher, will construct his or her own appropriate models, there is an important sense in which too many models are being constructed and negotiated, and too much effort is being duplicated and wasted. This observation gains additional weight from the rapidly growing volume of material in the areas covered by, and abutting on, ESL, and the growing difficulty in finding both the time and the expertise to read it with appropriate discrimination.

In a context like this a widely based journal like *TESL-EJ* can find a potential new role. What I have in mind is something like ongoing inter-disciplinary review, overview and evaluation of the current literature in the relevant domains of knowledge. Specialists in ESL will be able to choose what they want, rejecting the rest. But at least the material will be present, interpreted from ESL perspectives from experts in the relevant fields, and selectively evaluated from the point of view of the core disciplines of ESL. [-46-] Existing journals have done rather little in this area. Some encourage publication across a wider bandwidth. This has been a welcome development, and as a result studies in second language acquisition and pedagogy over the last five or so years have shown a maturing depth in both theory and methodology. But while this approach takes a more active role in promoting the

incorporation of certain kinds of research in ESL, it falls well short of an integrative, commentative and serious interdisciplinary epistemological role. The relevant bibliographical, citation and other indexes are currently improving in quality, but not in trans-disciplinary linkages, and tend to be so discipline-specific. In other words, I am asking for something more than access to other domains for ESL specialists. It seems, in the currently evolving intellectual topography of ESL, that we need more active involvement of disciplinary cartographers or knowledge mappers. Constructing a coherent and effective knowledge-base for ESL is both urgent, difficult and increasingly pressing. While a paper journal could attempt this task, limitations of length, space and time would make this a difficult undertaking, as would the inherently hermetic nature of many established paper journals. *TESL-EJ,* in other words, could take on a leading role in helping to support, and to form, the orientation of ESL with respect to the various disciplines which have input into its disciplinary domains.

A corollary of the knowledge-in-the-discipline argument concerns the nature of electronic journals. As we have seen, the electronic delivery and discussion formats tend to blur the distinction between dissemination and publication. This distinction is one which is maintained by libraries (Franks, 1993), and it is one which *TESL-EJ* will continue to maintain in the interests of quality control; unsupervised, the alternative leads to anarchy, or entropy and the collapse of distinct entities. On the other hand, electronic delivery and discussion also tend to blur other distinctions, and in a more productive way. To begin with, the distinctions between journal, archive and data-base tend to be subsumed within broader concepts of data: text data, citation data and networked information sources. Since all these types of information can be accessed, searched and worked on with families of software tools, there is a tendency for the structure of knowledge in text, and between text, to be less delineated than in paper formats. We can take this argument a step further, given that text is now a less priestly function than it was: the article and discussion genres tend not to collapse, but to overlap much more than with paper journals. Commentators are able to become involved in the exploration and development of current ideas, and authors are able to respond and to oversee the further evolution of their work before it becomes stale. As a result, there is also an overlapping of the roles of author and reader, in a way which has been explored elsewhere in hypertext and in its application to literary theory (Landow, 1992; Jennings, 1992). Readers, in short, are able to become much more involved in the construction of texts and [-47-] discourses than they can with a paper journal, and as a result scholarly publication and scholarly dialogue also tend to converge. Indeed, as Harnad emphasizes (1993), there is a self-corrective factor even in the flat and apparently anarchic structures of current Net discussion groups, since participants can and do comment, often with much greater immediacy and directness, on bad ideas or flawed arguments. As any journal editor knows, interaction with ones publisher and ones authors is constant; but interaction with ones readers, and particularly spontaneous correspondence from readers about the journal, is unusual and unrepresentative. As a result, the paper journal can be somewhat isolated. The electronic journal could be like this. But it could also play a much more interactive and integrative role, combining the collegiality of the academic workplace with the quality-filtered forum of the academic journal. At the present time there is a distinct decalage (pace Piaget) between academic discourse, particularly verbal discourse,

and academic publishing. Electronic journals may not only bridge this gap, but also bring about a genre shift in the nature of academic prose.

The second of these issues emerges from the first, and concerns the posture of *TESL-EJ* vis-a-vis its authors and readers. Most paper journals are reactive rather than proactive. Editors receive submitted papers, have them reviewed and revised, and publish them. Some journals include sections for discussion and squibs; a few, like *Behavioral and Brain Sciences,* include comments on the papers together with the first publication of some of the papers themselves though in this case papers selected for comment (there can be 20-30 peer-reviewed commentaries) have to impinge on at least three specialized areas. Some journals have theme issues, where a guest editor may be involved. This more proactive approach, by defining an area where the theme is restricted and papers are often sought or commissioned, is one which editors often view with some mistrust, since commissioning papers weakens the editors discretion in peer review and assessment. In general, then, paper journals tend to lead the discipline by publishing cutting-edge papers, but they do so reactively and in response to initiatives taken elsewhereby individuals or research groups, working at their institutions or reporting at conferences. This role is clearly one that a respectable electronic journal should take on. But there is also more than enough room for a variety of more proactive roles in the electronic journal. In this context the editors are partly the guardians of quality, partly responsive participants in ongoing dialogue, and partly architects of an evolving, and essentially rather open-textured, structure. There is room, in such a structure, for readers to take a much more active and initiating role than in the conventional paper journal. It is not merely a matter of a guest editor addressing a special theme, but of a wider forum providing input. The editors may be sometimes initiating, and sometimes reactive. [-48-]

A third issue arises from the question of proactivity. We have seen how the Net tends to blur the boundaries between various kinds of intellectual and publishing functions like the data-base, archive, dissemination, indexing, abstracting, discussing, negotiating and promulgating functions which can be packaged in a single environment. We can now take this a step further. Given the capacity of the Net to facilitate collaborative work, as discussed above, it is quite probable that the Net will alter the balance between scholars, disciplinary work, conferences, working papers and journal publication. It is quite likely that the cutting edge of the discipline, instead of being represented by keynote addresses at major conferences andsomewhat laterpapers in major journals, will be increasingly shared by fora and discussion on the Net itself. There is a role here for a journal like *TESL-EJ.* In some instances editors could cull papers from discussions on the Net in mailing lists like TESL-L, very much as paper journal editors do at academic conferences. In addition, the editors can launch fora topics and threads, invite discussion and discussants, or undertake thematic explorations by plugging into the expertise available to them through the readership of the journal. Such discussions are more like leading panel sessions at conferences. While a conference may have a lead time of 12-18 months on program topics, a journal like TESL-EJ could launch and elaborate a discussion on a specified topic in the three months between issues. Another area could involve the introduction of recent research in neighbouring disciplines to the ESL community, for instance, the question of whether parameters in Universal Grammar are or are not accessible to the second language learner (White, 1989). A journal like *TESL-EJ* would be able to summarize key issues from a

conference in such a dynamic area of language acquisition, put them before the readership, and seed new lines of enquiry, much more quickly than a conventional paper journal could hope to do. The editors, by taking the initiative and targeting individual issues, would have a much higher responsibility, but also could exert a profound influence on the direction and character not only of the contents of the journal, but also of the discipline itself.

Either way, the underlying strength of the Net association is indisputable. A journal which is part of a global network of information, indexed into data-bases and with access to other data-sources and journals, whether in citation, abstract or full-text form, will have a clear inherent advantage over a stand-alone journal with a time lag of perhaps 12-24 months over its electronic counterpart. The time factor may eventually prove to be as important as the argument from information-richness. Some areas of investigation, including artificial intelligence and cognitive science, have sometimes developed with unusual speed, to the extent that one had either to be at the key institutions, or be on the airmail mailing list for their working papers, in order to stay in touch with the leading edge of the discipline. These bursts cannot be predicted, but when they occur they tend to leave scholars elsewhere [-49-] doing something which, however worthy, suddenly finds itself to be not front-line research. Electronic journals, and their associated networks of data-chains and communication links, are already helping to shrink the disadvantage of information deficit from those who do not work in the institutions which lead the way in individual disciplines. This paper is able to cite work which was written and published in the last six months, rather than having to be content with work which was published in the last six months but written some time during the last two and a half years. An electronic journal worthy of the name should be able to become a major factor in globalizing access to the front line of a discipline.

For the moment, however, the tasks for *TESL-EJ* are more immediate, familiar and tangible. The future of *TESL-EJ* rests partly with the editors and the leadership which they offer; more strongly with the contributors; but also, to a growing extent, with the readers themselves. Paper journals tend to be stable, fairly fixed in format and length, and constrained in their interactions with the discipline by factors of time, production and policy. They share more of the properties of the academic monograph than do electronic journals, which can choose to be electronic clones of paper journals, or can be more amorphous. There lie here both a great opportunity and a great danger. The opportunity, as we have seen, is to find new ways of blending quality control with interactivity and immediacy, and so to move the journal right to the cutting edge of the discipline. The danger is that the electronic journal will be unable to achieve this blend, and will fall short in quality control, outreach or coverage.

More than is the case with paper journals, however, *TESL-EJ* is a collaborative endeavour, one where the readers can have a much quicker and far-reaching effect and input than is the case with paper journals. In this role *TESL-EJ* has a great opportunity to help to create new ways of promoting the disciplines and activities for which it was designed. Its present shape and format, designed to meet the needs of a new electronic journal in the transitional paper-to-electronic formats of the 1990's, will certainly change over time, in response to the readers, authors and the discipline. *TESL-EJ* is, in every sense, a collaborative

enterprise, and its success will depend fundamentally on the readiness of its audience to treat it as a shared undertaking.[-50-]

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[Articles which are available from listservs by electronic mail are followed by information on which listserv holds them, and how to retrieve them. The message to mail to the listserv takes the form:

MAIL LISTSERV@UHUPVM1.UH.EDU

(as appropriate for the individual listserv). The message needed to retrieve the particular item looks like:

GET ROOKS PRV4N5 F=MAIL

This message should be placed not in the Subject: line of the message, but in the first line of the body of the mail message, on a line by itself. No signature is needed, since the listserv will take the return address from the header of your mail message.]

The lists relevant to or referenced in this paper available on listservs (Internet addresses: add listserv@ before the addresses) are:

Applix

(Applied Linguistics): cltr.uq.oz.au

Humanist:

brownvm.brown.edu

Linguist:

tamvm1.tamu.edu

MBU-L

(Megabyte University: computers and writing): ttuvm1.bitnet

PACS-L

(Public Access Computer Systems): uhupvm1.uh.edu Postmodern culture: ncsuvm.cc.ncsu.edu

TESL-L:

(also daughter lists of TESL-L: footnote 5): cunyvm.cuny.edu

COMMED

(Electronic communication and education) is accessed not through mail to listserv, but through mail to commed@vm.ecs.rpi.edu

Relevant journals and periodic publications supported by listservs (Internet addresses) are:

Directory of Scholarly Electronic Conferences kentvm.kent.edu

EJournal (Electronic Journal): uacsc2.albanu.edu [-51-]

IPTC (Interpersonal Computing and Technology): guvm.georgetown.edu

VPIEJ-L (Publishing E-Journals: Publishing, Archiving and Access): vtvm1.cc.vt.edu

PACS-P (Public Access Computer Systems Review): uhupvm1.uh.edu

PMC-L (Postmodern culture): listserv.ncsu.edu

Psycoloquy: pucc.princeton.edu.

Scholar:cunyvm.cuny.edu

For additional information on listservs, including how to subscribe and unsubscribe to them, see the paper by Peter White in this volume.

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Definitions Of Selected Technical Terms

[This list is not complete, but is included here for readers (including those with experience of personal computers but not of computers on the Net) who may not be familiar with some of the relevant technical vocabulary. This list will form the basis of an incremental list of technical terms which will be available for readers of *TESL-EJ* on the listserv at Berkeley.]

> ASCII = American Standard Code for Information Interchange. An internationally accepted standard for assigning each character (letter, digit, punctuation mark) a numerical code for the computer to use in processing text. There are 127 basic characters.

binary

> (adjective and noun) Binary format consists of the numbers 0 and 1, and modern digital computers work with binary data. A file in binary form is one that cannot be read as text, for instance a program. Programs can be transferred over the Net (qv) in binary format, but they can also be sent by

email (qv), provided that they are first translated into a format which the various email programs can handle.

Bitnet

The smaller of the two major international networks linking computers. Bitnet numbers are now declining as the more widespread Internet (qv) increasingly dominates the international networks.

browse

(verb, transitive or intransitive) To peruse a text, often going back and forth in the file. A browser is a piece of software that allows you to browse. [-57-]

bulletin board

Computer users can post (qv) messages to a computer, or to a named directory on a computer, where other users can log in (qv) and read them, or post replies or other messages. Usage is not fully consistent, but bulletin boards are usually not automatically distributed to a list of subscribers (cf. list).

cross-post

(verb, also derived noun) To copy a message or text to another list or addressee.

download

(verb, also derived noun) To transfer a program, text or data from one computer to another, often from a host computer to another computer.

e-journal

= electronic journal, one which is distributed not on paper but over the computer networks. See also e-mail.

email

, e-mail = electronic mail, mail which is sent over the computer networks.

flame

(verb, transitive or intransitive) A new genre of unrestrained verbal abuse, sometimes done with good humour, sometimes not, to others who subscribe to specific lists (qv) devoted to this practice.

ftp

= file transfer protocol. A set of procedures used by computers to allow the user to transfer files from one computer to another across the Net. You can ftp to a host or site, often logging on (qv) as anonymous and giving your username as a password. You can then use the commands get to retrieve the required files. Not all computers allow this facility. See also telnet.

gopher

A very dynamically growing family of software developed at the University of Minnesota designed to allow access to information and software across the Net. Users run the gopher on their host computer and can then link to all the other gophers and the information to which they have access. Users of gophers are said to cruise gopher-space.

host

A computer supporting other computers which are linked to it, for instance by allowing logins, storing files or providing access to various software; also a computer on the Net (qv). [-58-]

Internet

The largest single network on the Net (qv), with connexions in over 130 countries, over 2.5 million host computers, and an unknown number of terminals and personal computers, subnets and users.

list

An electronic subscription list, maintained on a host (qv) computer to which messages can be posted, and from which the messages are distributed to all the subscribers. Lists may be open or moderated by one or more editors, who screen incoming mail for quality and relevance before allowing the listserv (qv) to post it to the subscribers. See also bulletin board.

listserv

A set of programs which serve a list (qv), receiving subscriptions, automatically replying to requests for information, and distributing information to those who have subscribed to a specified list. In order to join a list you send mail to the listserv, e.g. mail listserv@lingua.cltr.uq.oz.au with the single line of text (e.g.) sub applix John Doe To send messages to members of the list applix you send your mail to mail applix@lingua.cltr.uq.oz.au

login, log in, logon, log on (verb and derived noun)

To establish communication with a computer as a registered user, usually by providing your username and password.

machine readable

Usually text, in a format which can be read by computer, i.e. on disk or computer tape, or in the form of a computer file.

modem

Computers cannot communicate directly across telephone lines, and require an electronic device (a modem) at each end to convert streams of binary (qv) data into a form which can be sent over normal communications media.

Net

The Net, a generic name for the various electronic networks and their interconnecting gateways.

post

(verb)To send. See also cross-post. [-59-]

Postscript

A proprietary set of software to convert binary files, especially word-processing files from software like Microsoft Word and WordPerfect, into a form which can be sent over the Net (qv) and reconstituted with all formatting, fonts etc. by the recipient.

real time

In contrast to tasks done by the computer when its operating system allocates time, or to tasks performed with some delay over networks, real time operation happens at normal speed.

telnet

A set of procedures used by computers to allow the user to log in (qv) to another computer. Unlike ftp (qv), telnet can allow full user privileges on the target computer.

virtual (virtual Library)

The use of virtual in computing arose with the design of operating systems which were able toexpand available memory by swapping information to and from disk. Take a computer with 16Mb of memory, of which 4Mb is free. The current task requires 5Mb. A virtual machine unloads some of the busy 12Mb from memory to disk, so freeing 5Mb for the currenttask. The memory available is virtually as large as the size of the computers Random Access Memory plus the size of the disk (minus the core of the operating system). By analogy, the virtual library is a library which is not physically present.

write/read privileges

Permission to write or read files on a computer. For instance, users who log on (qv) to a remote computer using ftp (qv) to files are usually allowed only read privileges, which allows you to retrieve retrieve a file but not to deposit one on the computers disk. [-60-]

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