Classroom Concordancing and Learner Autonomy

Jon Mills
University of Luton

1 Introduction

A concordancer is a computer software package that enables large quantities of text to be rapidly searched for all the occurrences of a particular lexical item. Each occurrence of that word is then displayed in its context, usually one complete line with the key word centred. In addition, many concordancers perform a number of other, related tasks such as producing wordlists, indices and frequency counts. The concordance is central to corpus linguistics, because it acts as an informant of linguistic usage. It facilitates rapid scanning and comparison, and thereby allows many important language patterns in texts to be accessed. Concordances thus provide evidence about a language that is not easily elicited by any other method. It is not surprising, therefore, that, with the availability of good easy-to-use software and sources of machine readable text, the use of concordance-generating computer software is also becoming increasingly popular in the field of language teaching. A concordancer may, on the one hand, be used by the teacher for the preparation of course materials. However this discussion will limit itself to the student’s direct employment of a concordancer as a learning resource because this brings about a learner centred approach involving purposeful interaction with texts and selective attention to linguistic features. In considering the pedagogical value of such tools, there are three main areas that need to be considered.

2 Automatic Concordance Generation

First it might be helpful to give a summary of what a concordancer can provide. Concordances can be produced in a variety of formats. KWIC, an acronym for Key Word In Context, is used to refer to a concordance in which a whole line of text is printed for each occurrence of a word, with the word under examination in the middle. The item under investigation is known as the key word or node. A wide range of linguistic features can be the key word of a concordance. In the following concordance, made from a short newspaper article, the key word is a single item, the definite article.

5 e Players promised to bring the house down with their annual pant
12 islodging a ceiling tile in the new village hall where Jack and
13 village hall where Jack and the beanstalk opened last night. Pla
20 re was no danger to anyone. The cannon was simply too highly cha
26 cartridge but we've now got the right ones. We had dislodged som
30 shifted an inch or two when the cannon went off, nothing more. C
34 opher Ringrose, chairman of the village hall committee who is al
36 ee who is also in charge of the pantomime lighting, denied the b
37 pantomime lighting, denied the blast had caused any damage. No
42 l Disco Services in Redruth the cannon was hired, said he always
47 ves, I issue a message over the PA system. I consider this is a

The numbers in the left hand margin, refer to line numbers in the text. By bringing these noun phrases together we get a list of items that serve as props to the story. Even without having read the account in its original form, this short concordance gives a very good idea of what the story is about.
Phrasal studies are among the most interesting opportunities for new research. A collocation of two items, for example, such as village hall, may, for example, be the subject of a concordance:

12 g a ceiling tile in the new village hall where Jack and the bean
34 r Ringrose, chairman of the village hall committee who is also i

Alternatively a search can be done for a morpheme. For example, a concordance of *ing could be used to examine all the gerunds in an English language text.

4 ckhouse Players promised to bring the house down with their annu
12 a finale song, dislodging a ceiling tile in the new village hall
27 ones. We had dislodged some ceiling tiles to install microphones
32 non went off, nothing more. Confirming Mr. Watson's statement, M
11 t off during a finale song, dislodging a ceiling tile in the new
36 in charge of the pantomime lighting, denied the blast had cause
21 oo highly charged but we're using smaller cartridges now. Produc
24 tson said We made a mistake using a wrong cartridge but we've no

Of course several words that are not gerunds, such as bring and ceiling, will also slip through, but they can easily be edited out.

A search can be made for all the inflected forms of a given lemma, such as be, is, are, was, were, 're.

48 PA system. I consider this is a good idea
35 village hall committee who is also in charge of the pantomime l
9 unday's technical rehearsal was brought to an abrupt halt when a
42 vices in Redruth the cannon was hired, said he always issued len
18 caused and certainly there was no danger to anyone. The cannon
29 install microphones and it was one of these which shifted an in
20 anger to anyone. The cannon was simply too highly charged but we
16 s. Lynne Smith, said: There was very little damage caused and ce
21 mply too highly charged but we're using smaller cartridges now.

Concordances can be sorted in a number of ways. They may be sorted in the order in which the examples occur in the text, as in the examples above. It has been suggested that sorting alphabetically by the right of the keyword is the form that is most generally helpful (Sinclair 1986 : 197). In other words, the words occurring immediately after the keyword are in alphabetical order, beanstalk, blast, cannon, house, etc.
Notice how this arrangement brings the 3 occurrences of *the cannon* together; *the cannon was hired*, *the cannon was simply too highly charged*, *the cannon went off*. These provide a sort of summary of the whole article, and thereby demonstrate the centrality of *the cannon* to the story.

Alternatively a concordance may be sorted alphabetically by the left of the node. In other words, the words occurring immediately before the keyword are in alphabetical order, *and*, *anyone*, *bring*, *denied*, etc.

Many concordancing programs will also produce wordlists. Wordlists may be alphabetically arranged, arranged in reverse alphabetical order, or in descending order of frequency. By way of illustration, here are extracts from three wordlists prepared from the same short local newspaper article. The wordlist in descending order of frequency lists the most frequently occurring items first. It can be seen from this example that the articles *the* and *a* are the most frequently occurring items in this sample of text. Their number of occurrences are listed as 11 times for the definite article and 8 times for the indefinite article. The first lexical item in the list is, however, *cannon*, which again indicates it as the central theme of this story. The wordlist in alphabetical order speaks for itself; but notice how the reverse alphabetical order list brings suffixes together. In particular we see here all the -ed verb endings brought together.
### Descending Order of Frequency

<table>
<thead>
<tr>
<th>Word</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>the</td>
<td>11</td>
</tr>
<tr>
<td>a</td>
<td>8</td>
</tr>
<tr>
<td>was</td>
<td>6</td>
</tr>
<tr>
<td>to</td>
<td>5</td>
</tr>
<tr>
<td>cannon</td>
<td>4</td>
</tr>
<tr>
<td>Mr</td>
<td>4</td>
</tr>
<tr>
<td>of</td>
<td>4</td>
</tr>
<tr>
<td>said</td>
<td>4</td>
</tr>
<tr>
<td>and</td>
<td>3</td>
</tr>
<tr>
<td>He</td>
<td>3</td>
</tr>
<tr>
<td>in</td>
<td>3</td>
</tr>
<tr>
<td>it</td>
<td>3</td>
</tr>
<tr>
<td>no</td>
<td>3</td>
</tr>
<tr>
<td>When</td>
<td>3</td>
</tr>
<tr>
<td>an</td>
<td>2</td>
</tr>
<tr>
<td>but</td>
<td>2</td>
</tr>
<tr>
<td>caused</td>
<td>2</td>
</tr>
<tr>
<td>ceiling</td>
<td>2</td>
</tr>
<tr>
<td>damage</td>
<td>2</td>
</tr>
<tr>
<td>down</td>
<td>2</td>
</tr>
<tr>
<td>had</td>
<td>2</td>
</tr>
<tr>
<td>hall</td>
<td>2</td>
</tr>
<tr>
<td>is</td>
<td>2</td>
</tr>
<tr>
<td>now</td>
<td>2</td>
</tr>
<tr>
<td>off</td>
<td>2</td>
</tr>
<tr>
<td>one</td>
<td>2</td>
</tr>
<tr>
<td>pantomime</td>
<td>2</td>
</tr>
<tr>
<td>Players</td>
<td>2</td>
</tr>
<tr>
<td>rehearsal</td>
<td>2</td>
</tr>
<tr>
<td>there</td>
<td>2</td>
</tr>
<tr>
<td>these</td>
<td>2</td>
</tr>
<tr>
<td>this</td>
<td>2</td>
</tr>
<tr>
<td>tiles</td>
<td>2</td>
</tr>
<tr>
<td>use</td>
<td>2</td>
</tr>
<tr>
<td>using</td>
<td>2</td>
</tr>
<tr>
<td>village</td>
<td>2</td>
</tr>
<tr>
<td>We</td>
<td>2</td>
</tr>
<tr>
<td>went</td>
<td>2</td>
</tr>
<tr>
<td>with</td>
<td>2</td>
</tr>
<tr>
<td>abrupt</td>
<td>1</td>
</tr>
<tr>
<td>actually</td>
<td>1</td>
</tr>
<tr>
<td>added</td>
<td>1</td>
</tr>
<tr>
<td>also</td>
<td>1</td>
</tr>
<tr>
<td>always</td>
<td>1</td>
</tr>
<tr>
<td>annual</td>
<td>1</td>
</tr>
<tr>
<td>any</td>
<td>1</td>
</tr>
<tr>
<td>anyone</td>
<td>1</td>
</tr>
<tr>
<td>bang</td>
<td>1</td>
</tr>
</tbody>
</table>

### Alphabetical Order

<table>
<thead>
<tr>
<th>Word</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>8</td>
</tr>
<tr>
<td>abrupt</td>
<td>1</td>
</tr>
<tr>
<td>actually</td>
<td>1</td>
</tr>
<tr>
<td>added</td>
<td>1</td>
</tr>
<tr>
<td>also</td>
<td>1</td>
</tr>
<tr>
<td>always</td>
<td>1</td>
</tr>
<tr>
<td>annual</td>
<td>1</td>
</tr>
<tr>
<td>any</td>
<td>1</td>
</tr>
<tr>
<td>anyone</td>
<td>1</td>
</tr>
<tr>
<td>bang</td>
<td>1</td>
</tr>
</tbody>
</table>
| 3 Text sources and software

The second area to be considered concerns sources of electronic text and the software to analyse these texts. In order to use a concordancer, it is necessary to have texts in machine readable form. There are a number of options regarding the preparation of texts. The keying...
in of texts manually is slow and laborious. However the conversion of printed matter to
electronic form can be automated. An optical character reader (OCR) is a device that converts
printed text into ASCII format electronic text. The process is rather like using a photocopier
but much slower. Alternatively texts can sometimes be obtained already prepared in
electronic form from certain publishers, often on CD-ROM. Other sources are the Oxford Text
Archive in Britain and Project Gutenberg at Oregon State University in the United States.
These serve as international co-ordinating sites for the endeavour to accumulate texts in
machine readable form and include many literary texts. There are also a number of publicly
available English language corpora, varying in size from around a hundred thousand to a
million or more running words. The largest of these, the British National Corpus, consists of
200 million words of spoken and written text representing a wide variety of styles and genres.
It comes with its own text analysis and retrieval software, SARA, and is available over the
internet - free to the academic community.

The learner may work with an individual text, a general corpus or a specialised corpus
(Tribble 1990 : 5; Tribble & Jones 1990 : 15). An individual text is likely to be the subject of a
literature class. A general corpus supplies information about the global behaviour of the items
under investigation. A specialised corpus, by contrast, provides the student with a picture of
how the language is used within a particular genre or register. A collection of academic
papers, for example, can provide valuable insight into usage of vocabulary and grammar
appropriate to the genre of academic writing. The comparative study of different writers or
analysis of image and metaphor, on the other hand, is permitted by a collection of short
stories or poems (see Kirk 1990; Mparutsa et al. 1991).

Many students prepare their own essays with a word processor. In this form they are easily
adapted for use with a concordancer, so that students can learn directly from both their own
and their fellow students’ mistakes (Tribble 1990 : 5-6). Concordance analysis may be used to
investigate transitivity, tense, order of adverbs, article usage, etc.. The learner’s awareness of
English is enhanced as s/he becomes involved in the process of exploring the corpus data.

In order to extract data from a corpus and put it to some sort of use, software tools are
necessary. A number of applications packages have been specially developed for extracting
information from a corpus. If software is to be suitable for use by language learners, it needs
to be user friendly. It also needs to be interactive. In other words, it must respond to the
user’s commands rapidly. If the user has to wait for a long period, say half an hour or more,
between entering commands and receiving output, then the concordancer is not really
practicable in the classroom situation.

I will start with OCP (Oxford Concordance Program) and its PC version Micro-OCP because they
have been widely used by language students (Burgess 1987 : 33; Dodd 1987 : 27; Davidson
1990; Kirk 1990). Micro-OCP is a flexible package that can be used to produce word-counts,
word-lists, indices, KWIC concordances and statistical information from texts. It can sort
word-lists in ascending or descending order of frequency, alphabetical or reverse-alphabetical
order. However it is not the most user friendly of the software packages available, nor is it
interactive. WordCruncher allows a set of parameters to be defined that enable the user to
search using a phrase, a list of words, two or more words in a defined context, tag words for
text fields, or any logical combination of these. MicroConcord and the Longman Mini
Concordancer are concordance programs designed with the language learner in mind. They
offer the opportunity to study the uses, collocations and meanings of selected items, and the
structure of language. Unlimited quantities of text may be investigated at speeds fast enough
to make interactive classroom concordancing viable. MicroConcord and the Longman Mini
Concordancer both contain their own selected corpora of texts but can, in addition, be used
with other texts. TACT is a very easy-to-use interactive concordancer that was devised for
literary analysis. It is especially suitable for use by students and also features a collocation
generator program that lists all the maximal phrases in a text. For the Macintosh, Conc 1.70
and Free Text are available as freeware.
4 Learner Activities

In the third and final area of this discussion the sort of activities that students might undertake with a concordancer, are surveyed. Faerch and Kasper (1983) suggest that the foreign language learner first forms hypotheses concerning target-language rules and then tests these. In line with this assumption, there have been a number of innovations and rediscoveries in recent years which come under the heading of what might be described as ‘discovery learning’. According to this approach, the learner is equated with the researcher who having formed a hypothesis on the premise of intuition or slender evidence, goes on to test, reject or refine this in the light of further evidence (Johns 1988 : 14).

It has been suggested that it is as a learning resource to be used freely by students on their own initiative that the most important potential use of an interactive concordancer lies (Johns 1986 : 161). Electronic text analysis offers the student the opportunity to take control of his/her own learning by means of purposeful interaction with text(s). Johns (1991) calls this approach ‘Data Driven Learning’ (DDL). The computer is, thus, not seen as a surrogate teacher but is instead regarded a special kind of informant, which is passive and silent until the learner poses a question. It then responds to the question by providing data that the learner tries to interpret. The higher level skills of inferencing, connecting, interpreting and evaluating are then brought into play and informal acquisition is facilitated in addition to selective attention to linguistic or literary features. Once students are familiar with a concordancer, they may use it as readily as a dictionary to find examples of usage from their chosen corpus of text. Their task, then, is to discover the rules from the examples.

The role of the teacher thus becomes that of director and coordinator of student-initiated research rather than transmitter of knowledge. The teacher is restricted to suggesting points at which it may help to solve learning difficulties. It has been observed that since open-ended uses of the computer utilise the computer as a facility or resource, the type of activity is not pre-determined (Phillips 1987 : 176; Johns 1988 : 11, 14; 1991 : 3). Students’ use of a concordancer involves more than looking up facts. A single consultation has a tendency to raise other questions, requiring further concordances, which leads to a kind of conjectural learning. The teacher may feel that s/he is being placed at risk, since this sort of activity may be difficult for the teacher to control and therefore difficult to incorporate into a tightly planned lesson (Higgins 1988 : 43; Johns 1988 : 11). The teacher, therefore, must be prepared to stand back and hand autonomy over to the student.

Errors in students’ written work can be dealt with by comparing the items which the students have misused with examples from authentic text. Johns (1986 : 161) describes how he used this method with his students.

One possibility with which we have experimented is its use in helping students to correct their written work, some mistakes being underlined and a ‘C’ placed in the margin signifying “You have used this word in a way which is different from how an English person would use it: if you get a concordance of the word you should be able to work out a suitable correction for yourself.”

It has been observed that overseas students frequently have difficulty remembering word collocation (Fox 1987 : 146). Moreover teachers rarely find collocation errors easy to explain. Overt explanation of collocational rules is not practicable. Nevertheless students could gain an insight into word usage from the set of examples that a concordance provides (Levy 1990 : 178; Johns 1988 : 11-12). Concordances could, for example be obtained for the words interest and depend in order to ascertain which prepositions normally follow them.
Jon Mills

tes of use; and, far from being e-cream van - children are more
iane, when did you first become Diane Abbott:> I’ve always been
mbridge, and umm I’m still very viewer:> One ... one thing which
een to nineteen-year-old group, patterns of living which do not
depend on fossil fuels at all or do de
epend on them only to a very sligh
gin to pay this by direct debit. irst applications of fertilizer

(Diane Abb
interested in politics? <Diane Abb
interested in politics, as um, far
interested. I’m just doing a serie
interested me was. um, polite viol

(Tribble & Jones 1990 : 38)

Differences in register are another area that students can investigate with text analysis and retrieval software. Kirk (1990) describes a project undertaken by undergraduate students of English in which different varieties or registers of English were investigated for the frequency distribution of individual features or groups of features among their vocabulary and grammar. Amongst the varieties investigated were the language of reporting in national and provincial daily and Sunday newspapers, a comparison of learned and scientific writings with romantic fiction, 18th century prose, lyrics of contemporary popular song, and spoken and written humour. Kirk concludes that the students involved learnt both about the structure of the vocabulary and syntax of English on the one hand, and about the structure of individual texts and how these could be shown to differ systematically on the basis of frequency bundles on the other hand. Furthermore he found the activity to have been instrumental in constructive personal learning and observed a growth of proficiency in linguistic identification and of understanding of language use. The students got a feel for the nature of empirical enquiry and their understanding of the structure and relationship of texts was enriched.

A concordancer may be used as an accessory to writing. Levy (1990 : 184 ff.) sees one use of a concordancer as being integrated into a word processing environment with an on-line spelling checker, grammar checker and thesaurus. The whole system might then be combined in a hypertext environment with the word as the basic link. The following diagram illustrates the concept.
Jon Mills

Levy (1990 : 185)
Working with this system students have a variety of options as they write or after they have completed a draft. For example, a student might first consult the thesaurus to find a synonym, secondly cross-check with the dictionary for the meaning and then consult a concordance of the item to observe its usage. The system may be either used to check the student’s accuracy of usage or alternatively provide a broader approach to linguistic discovery.

In the field of literary studies, there are a number of approaches regarding the use of a concordancer. It has been suggested that the teaching of literature in ELT encourages personal response to text by increasing students’ sensitivity to the linguistic means by which textual affects are achieved. A close focus on the linguistic or stylistic features of text is therefore latent. Within the field of literary studies, the application of electronic text analysis to stylistics is of value to the study of structure, style, prosody and content of texts. It is feasible to draw conclusions about why a writer uses words in a certain manner if it is accurately known how they use words. It then becomes possible to theorise about how texts achieve their effects. An empirical basis is essential if a theory is to be credible and the computer provides the means to collect data not only more accurately but also for much longer texts than would prove feasible by human endeavour (Phillips 1987 : 176, 181). Working with a group of students of German, Burgess (1987 : 35) observes that concordance work brought awareness of the complexity of the average literary text. The nature of the literary text as a pattern, a composite form made up of recurring elements, dependent for this effect on both content and form is made explicit by such work. Discussion of what can be done with text analysis software involves consideration of the reasons for making concordances and wordlists, which leads to scrutiny of literary analysis methodology.

Word frequency analyses are well known in the field of authorship studies (Wisbey 1971; Hockey 1980). Electronic text analysis offers statistical investigation of, amongst other things, the size and diversity of an author’s vocabulary, or detailed study of single words or small sets of words such as and or the use of on vs. upon. In the first paragraph of Hemmingway’s short story Cat in the Rain, out of 93 word tokens, only some 8 adjectives, big, green, good, bright, gravel, long and empty are employed. This feature of Hemmingway’s style may be easily discovered by students from a wordlist that they have generated and result in useful class debate of Hemmingway’s reasons for deliberately adopting such an ascetic technique (Phillips 1987 : 177).

A descending frequency wordlist may be used to select likely candidates for concordancing. The first lexical item encountered in a descending frequency list is normally found to operate, in some way, at the level of the ‘literary device’ (Louw 1990 : 166). To illustrate, here is a list for Dylan Thomas’ Fern Hill.

---

**Fern Hill**

- green
- bright
- gravel
- long
- empty

**Cat in the Rain**

- big
- good
- gravel
The first lexical item encountered is *green*. If a concordance is produced for this item, its metaphorical use becomes apparent.

One approach requires literature students to examine an argument or set of arguments found in critical literature and use a concordancer to check their validity. The study of thematic patterns or recurrent images in literature may be aided by data concerning the distribution of selected words throughout a given text. For example, Humphreys (1984:48), in a discussion of the language of Shakespeare’s *Julius Caesar*, maintains that “Blood likewise figures symbolically in many guises - the blood of noble race, the life-stream of heroic figures, the guarantee of Roman quality...”. By means of a text analysis and retrieval program, a student could produce a concordance of the words *blood* and *bloody* to verify Humphreys’ assertion (Davidson 1990:81, 84).
The development of a given type of imagery in, for instance, a Shakespeare play, could be traced in this manner. One could, for example, produce a concordance of all the examples of eye imagery in King Lear, with each occurrence cited according to its line number (Phillips 1987: 181).
Certain themes throughout a particular play could be traced by calling up all the verses in which certain keywords crop up. Phillips (1987: 181-2) shows how a KWIC concordance of the -ing form of the verb can be used as a powerful tool in the stylistic analysis of Hemmingway's *Cat in the Rain*.
had a momentary feeling of being quite dark and still raining.

The husband went on reading, lying propped up with two pillows, resting his eyes from reading.

To the rain?' he asked, putting the book down. 'It was going to wet,' she smiled, speaking Italian. Of course, the hotel was only two Americans stopping at the hotel. They did not listen. George was on the bed reading. 'Did you get the cat?' he asked. 'It was getting dark.' The husband went on reading, lying propped up with the book down. 'I want to pull my umbrella over her, she thought, looking at herself with the hand mirror. 'I get so tired of looking like a boy.' George shift again. His wife was looking out of the window. It was raining harder. A man in a rubber cape was crossing the empty square to the cafes. A waiter stood looking out at the empty square. Outside right under the dressing-table, looking at her profile again. Geo like a boy.' George shift out of the window. It was propped up with two pillows. 'I get so tired of looking', she asked, looking at her profile again.

Together the words 'looking' and 'reading' account for 13 out of 31 citations or 42%. The word 'looking' has a marked association with the female character and 'reading' with the husband. Phillips suggests that this possibly indicates that the wife is confined to the passive role of observer of life because the husband is too involved in his reading and therefore pays too little attention to his wife.

In one final example, Misek-Falkoff (1983: 2-6) discusses the concordancing of theme words such as love, hope and fear. The following is a concordance of the word love, spoken by the character Eve, in Milton's Paradise Lost.

```plaintext
answering looks | Of sympathy and love: There I had fixed | Mine eyes  | EVE 85
y in out mutual help | And mutual love, the crown of all our bliss | AD&EVE 107
qual fear, that my firm faith and love | Can by his fraud be shaken | EVE 340
n the event. | And what is faith, love, virtue, unassayed | Alone, wi | EVE 344
female sex, the more to draw his love, | And render me more equal; a | EVE 373
me in bliss or woe: | So dear I love him, that with him all deaths | EVE 373
deprived | Thy presence: agony of love till now | Not felt, nor shal | EVE 375
May join us, equal joy, as equal love: | Lest, thou not tasting, dif | EVE 375
, | 0 glorious trial of exceeding love, | Illustrious evidence, examp | EVE 383
| Shall separate us, linked in love so dear, | To undergo with me | EVE 383
presented | This happy trial of thy love, which else | So eminently nev | EVE 383
| 0 glorious trial of exceeding love, | | us, Adam: witness Heaven | What love sincere, and reverence in my | EVE 450
ceptance, hopeful to regain | Thy love, the sole contentment of my heart | EVE 454
```
Misek-Falkoff (1983: 6) observes that Eve's use of love alters rapidly after the fall, before which it is coupled with faith (stanza 340) and after which it pairs with agony (stanza 375).

5 Conclusion

The possibilities for increased learner autonomy that electronic text analysis provides have far reaching implications for language pedagogy. Old convictions, such as the centrality of the syllabus, begin to fade. In any given educational setting, a decision has to be made as to what extent students can take charge of their own learning.

Bibliography

Bradley, J. & L. Presutti (1993) TACT 1.2 Computer software. Toronto: Univ. of Toronto, Freeware. IBM PC or compatible, MS-DOS.
Longman Mini Concordancer Computer software. Harlow:Longman Group Ltd. IBM PC or compatible.
MicroConcord Computer software. Oxford: OUP. IBM PC, XT, AT or PS/2 or compatible with minimum 175K RAM, hard disk and MS-DOS 2.11 or higher.


Thompson, J. Conc 1.71 Computer software. Dallas: Summer Institute of Linguistics, Freeware. Mac SE/30 or higher.


Appendix

Some Useful Addresses

British National Corpus Oxford University Press, Walton Street, Oxford OX2 6DP. Tel.: 0865 56767. Fax: 0865 56646. E-mail: natcorp@uk.ac.ox.vax.

Conc 1.71 is available as freeware from the International Academic Bookstore, Summer Institute of Linguistics, 7500 W. Camp Wisdom Road, Dallas, TX 75236, USA. Tel. 214-709-2404; Fax: 214-709-2433; E-mail: academic.books@sil.org. It can also be downloaded by anonymous ftp. Contact lexical@nmsu.edu for details.

Electronic Text Library Janet Caldwell Publishing, Oxford University Press, Walton Street, Oxford OX2 6DP. Tel.: 0865 56767.

English Poetry Full Text Database on CD-ROM Chadwyck-Healet Ltd., Cambridge Place, Cambridge CB2 1NR. Tel.: 0223 311479.

International Corpus of English Project Professor Sidney Greenbaum, Director, Department of English, University College London, Gower Street, London WC1E 6BT. Tel.: 071 387 7050 ext 3121. E-mail: ucleseu@uk.ac.ucl.

Machine Readable Spoken English Corpus Gerry Knowles, Dept. of Linguistics and Modern English Language, Lancaster University, Lancaster LA1 4YT. Tel.: 0524 65201 ext 3023. Fax: 0524 843085. E-mail: eia008@uk.ac.lancaster.central.

Oxford Text Archive contact Lou Burnard, Oxford University Computing Services, 13 Banbury Road, Oxford OX2 6NN. Tel.: 0865 273238. Fax: 0865 273275. E-mail: archive@uk.ac.ox.vax.
Project Gutenberg general enquiries to Project Gutenberg Director of Communication, E-mail: dircompg@ux1.cso.uiuc.edu

TACT text-retrieval and concordance application is available by FTP as /pub/cch/tact/tact2.1gamma on <epas@utoronto.ca>. Disks with an obsolete printed manual are about $22 from the Centre for Computing in the Humanities, Robarts Library, Room 14297A, 4 Bancroft Ave., Toronto, ON M5S 1A5, Canada <cch@epas.utoronto.ca>. Ask Ian Lancashire (ian@epas.utoronto.ca) about the TACT-L@utoronto.bitnet discussion group.

Text Encoding Initiative contact Lou Burnard, Oxford University Computing Services, 13 Banbury Road, Oxford OX2 6NN. Tel.: 0865 273238. Fax: 0865 273275. E-mail: lou@uk.ac.ox.vax.