

*** NEWSLETTER NO. 1 ***

The London Stage Information Bank

Lawrence University
Appleton, Wisconsin 54911
7 June 1971

This newsletter comes into being because I am unable to write personally all of you who have shown an interest in the computerizing of The London Stage, 1600-1800, about our progress in that enterprise, and because the academic community has a big enough stake in what we are doing to deserve a report from time to time.

As you may know, Will Daland, programmer-analyst, and I, Ben Schneider, English Professor and dabbler in computing, with the support of the National Endowment for the Humanities, The American Council of Learned Societies, The U. S. Steel Foundation and generous contributions from private individuals, began last fall a pilot project with the goal of finding out the best way of converting the 11 volumes of The London Stage into the computer-searchable data base of an information service for scholars in theatrical, dramatic, political, social, and economic history. Thanks to the appearance of extra funds that allowed us to continue work five more months, we are much farther along the way to the completion of our data base than we had anticipated. We are now converting the whole 8,000-page record to computer tape in the initial phase of the project instead of in the second phase. As phase one draws to a close, we are able to report progress in all divisions of the enterprise.

Our chief activity has been the analysis of the problem. A study of the potential "user community", based on recent bibliographic materials and responses to our published requests for guidance indicates that the greatest present need is for information about the stage history of plays and about the careers of performers. We have accordingly planned our system along these lines. Analysis of the text as it appears on the page has shown us its basic building blocks (the people of the theatres and their jobs), how they are put together (the formal syntax of the work), and how we may best take advantage of this structure to pick the work apart without losing the exact address of each piece in its original spot. This process has produced six successive versions of input specifications, the last of which is eleven pages long. This last set of specifications (May 1971), of necessity the final one, appears to be working well as we edit the first volumes of the text for typing. Another major effort has been expended in investigation of possible methods of conversion. This involved us in evaluation of the nearly 100 existing input devices, three of which we have tried out extensively.

As a result of these investigations we have contracted with China Data Systems of Hong Kong and New York to type The London Stage and with Information Control Incorporated of Kansas City to read this typing into the computer with their optical scanner. We chose optical scanning as a method of input in preference to all other methods

because it enables us to convert the text on an ordinary Selectric typewriter instead of on a less convenient, more specialized, and higher-priced machine; using this typewriter makes possible the selection of a type font which efficiently expresses the main features of The London Stage without a great deal of arbitrary coding. You are now looking at OCR-B, the European standard font for Optical Character Recognition by machine, and our choice for The London Stage. What we like best about it is that it has both upper and lower case characters, a comparatively new feature in OCR and in computer input by any method. This feature will enable us to produce more civilized, more readable, and more informative printouts than can be obtained with the sans-serif, block capital letters in which computers usually write.

In the computing department, Will Daland has created seven programs, working with a small sample of data. These display text for editing; register errors; enable us to repair flaws in the converted text from a computer terminal; classify and tag items in the calendar that can be identified by their place in the syntactical structure; specify casts for which the text only refers to previous performances; retrieve and group all identified items; and sort in alphabetical order (numerical for dates) six categories of items (type of performance, date, theatre, title of play, role or specialty, actor) in any hierarchical arrangement. At the spring meeting of our advisory board (April 22nd, 1971) we were able to demonstrate all of these programs in operation, the final output being a sort by actor, then by date, of the period September 1738-March 1739, showing each actor's day to day theatrical activity.

The original advisory board of the project consisted simply of editors and publisher of The London Stage. Dean George Winchester Stone, Jr. of New York University was and is the Chairman. The rest of the group consisted of Vernon Sternberg, Director of the Southern Illinois University Press; Emmett Avery, Washington State University; Arthur Scouten, University of Pennsylvania; and Charles Beecher Hogan of Yale. A great blow to the project was the death in December of Emmett Avery, a pioneer compiler of London Stage material who was to have continued his pioneering as a textual analyst for the project. His presence added cheer as well as lustre to Vernon Sternberg's gala celebration in October '70 of the publication of the fifth and last part of The London Stage, which featured a command performance of the four editors by particular desire of the Southern Illinois intelligentsia and a major lecture by professor Harry Levin, as well as a banquet and a reception. At our first advisory board meeting, sandwiched between those events, Emmett Avery helped get the London Stage Information Bank off to a good start, penetrating to the heart of difficulties and suggesting remedies with typical acumen.

Since then we have enlarged our advisory board beyond the publisher and editors of The London Stage to include other leading specialists in theatrical affairs of the period: Professor Allardyce Nicoll, President of the Society for Theatre Research, London, and author of basic books on London stage history; Miss Sybil Rosenfeld, Secre-

tary of the same Society and for many years editor of Theatre Notebook, its principal publication; Professor Cecil Price, Swansea University, Wales, a leading historian of literature and the stage in the 18th century; Professors Philip Highfill and Kalman Burnim, Tufts and George Washington, compilers of a biographical dictionary of actors and actresses during the period of The London Stage; Father Carl Stratman, Loyola of Chicago, editor of Restoration and Eighteenth Century Theatre Research and compiler of dramatic bibliographies, especially a bibliography of all works about the English stage, 1660-1800, published from 1900 to 1968; Professor John Robinson of Nebraska, with J. F. Arnott, Glasgow, compiler of a bibliography of English theatrical literature from the beginnings to 1900.

The project's informative power and usefulness to the academic community, it is apparent, would increase by a factor many times greater than the extra work involved, if we were to add to our data base certain other basic sources of facts about this period, in particular the Stratman and Robinson-Arnott bibliographies. Both Professor Robinson and Father Stratman look favorably upon the idea, and the advisory board has recommended that we seek the funds for adding these works to our pool of information.

Computer processing will improve the usefulness of each of these sources as a result of the exhaustive cross-referencing that will be possible. For example, each item in Father Stratman's bibliography is now listed under a few of several hundred subject headings. By computer, one could make sure that each item was accessible from all headings to which it pertains. A standard set of subject headings suitable for the introductions to the five parts of The London Stage as well as the bibliographies would be a natural outcome of converting these resources. Since both the Arnott-Robinson and Stratman bibliographies are annotated, they are very rich in cross-references. This method of access to the three sources should greatly shorten the task of finding out what is known on a given topic.

Our main job this summer will be editing the text for computer processing before it is typed in Hong Kong. Three stage historians have volunteered to help in this work. They are Mrs. Muriel Friedman, Loyola of Chicago, who is working on the playwright John O'Keefe; Miss Marcia Heinemann, Chicago, who is working on Eliza Haywood; and Leonard Leff, Northern Illinois University, who specializes in R.B. Sheridan. We are extremely grateful to these three for helping us with a formidable task. If any stage historians who receive this newsletter would like to become more intimately acquainted with the 18th century stage while helping us get the editing done, please write soon or call me at 414-739-3681, extension 422. The work will have to be done in June and July of this year. It takes about two weeks of solid work to edit a volume to our input specifications.

During the academic year 1971-1972, the project will pause while we gather funds for the final push and while I take my sabbatical in London, studying actors' lines in Restoration tragedy. I look forward to the opportunity my stay will give me to discuss our

venture with British stage historians.

At present we plan to complete the data base during the two year period from August 1972 to August 1974. Since I shall be teaching part of each year the work will go at a more deliberate pace than it has done. One hopes, however, that there will be no wasted motion. The most difficult phase of the project is over---working out the system. The routine but time-consuming work of fitting each entry exactly to our input specifications, of devising and executing a plan for converting the two bibliographies, and of refining our programs remains to be done.

Anyone who has a specific need for a compilation of information from The London Stage should let us know soon as precisely as possible what it is, if he has not done so already. We will arrange our production schedule so as to meet declared needs first. We shall begin to answer the simpler kinds of queries in September of 1972, and we should be able to answer almost any question by August of 1974.

The London Stage Information Service will reside at Lawrence on much the same footing as a learned journal would. Users of the service will pay a fee proportional to the degree of difficulty of obtaining the information they want but considerably less than Lawrence's cost. An average fee of \$50 has been suggested. This does not seem like a large price to pay for a great saving in scholarly time and a commensurate increase in how much a scholar can know in the span of life given to him. Querying The London Stage Information Bank will cost him less than visiting a distant library and it will similarly increase his fund of knowledge.

Please write if you have any questions about The London Stage Information Bank or if you have any suggestions for its future course.

Yours sincerely,

A handwritten signature in cursive script that reads "Ben R. Schneider, Jr." with a stylized flourish at the end.

Ben R. Schneider, Jr.
Department of English
Director

venture with British stage historians.

At present we plan to complete the data base during the two year period from August 1972 to August 1974. Since I shall be teaching part of each year the work will go at a more deliberate pace than it has done. One hopes, however, that there will be no wasted motion. The most difficult phase of the project is over---working out the system. The routine but time-consuming work of fitting each entry exactly to our input specifications, of devising and executing a plan for converting the two bibliographies, and of refining our programs remains to be done.

Anyone who has a specific need for a compilation of information from The London Stage should let us know soon as precisely as possible what it is, if he has not done so already. We will arrange our production schedule so as to meet declared needs first. We shall begin to answer the simpler kinds of queries in September of 1972, and we should be able to answer almost any question by August of 1974.

The London Stage Information Service will reside at Lawrence on much the same footing as a learned journal would. Users of the service will pay a fee proportional to the degree of difficulty of obtaining the information they want but considerably less than Lawrence's cost. An average fee of \$50 has been suggested. This does not seem like a large price to pay for a great saving in scholarly time and a commensurate increase in how much a scholar can know in the span of life given to him. Querying The London Stage Information Bank will cost him less than visiting a distant library and it will similarly increase his fund of knowledge.

Please write if you have any questions about The London Stage Information Bank or if you have any suggestions for its future course.

Yours sincerely,

Ben R. Schneider, Jr.
Ben R. Schneider, Jr.
Department of English
Director

*Mailing list for this
is about 100 names.
Enquiries increasing.
Ben*

RECEIVED

*** NEWSLETTER NO. 2 ***

JAN 27 1972

The London Stage Information Bank

PRESIDENT

Lawrence University
Appleton, Wisconsin 54911
January 1972

Since writing of our progress last June in Newsletter No. 1, I've gone to England on sabbatical, but the construction of LSIB has proceeded at a regular pace, I won't say without a hitch but without any disasters, to the point where 11 of 11 volumes have been edited for the computer, 11 have been typed for optical scanning, and 7 have been converted to computer tape by scanning. The whole corpus should be "in the can" by March 1. The process was global in scope. Text was edited in Chicago, Columbus, DeKalb, Appleton and London, typed in Hong Kong by China Data Systems, and scanned in London by Computer Services Center before going to its final destination in Appleton. In spite of this dispersion of facilities, this was really a good way to do the job. The quality of the resulting tapes is high, thanks to wholehearted effort on all fronts. I am extremely grateful in particular to Muriel Friedman (Loyola of Chicago), Marcia Heinemann (Chicago), Leonard Leff (Illinois), and Mark Auburn (Ohio State) for dropping everything last summer to edit the text. Without their help it would have been impossible to meet the production schedules of our typing and scanning services.

Since I last wrote, Will Daland has added two important programs to our system, one for editing our tapes and another, most basic, for enabling us to select items from our store according to several qualifications at once. For example we may select all performances of a given role by a given actor at a given theatre, or all performances containing a certain actor, a certain play and a certain song in them. He also refined our existing system so as to make it more efficient. It takes about twelve hours, now, to pass one volume through the system of programs that check, rearrange, and interpret the scanner output so retrieval can take place. Will also installed some useful options which can be switched on or off as needed: to print or not to print certain error messages; to print or not to print images of the text in its various stages of transformation; to add or delete certain processes. Some errors in the text that the programs can automatically locate and report are faulty page sequence; missing page number; impossible section code; incomplete bracket or parenthesis; incomplete delimiter of extraneous text or index entry; impossible year, month, day; missing item; faulty punctuation; erroneous reference to previous cast. Will left the project in October, when our budget for programming ran out, but not before teaching Cindy Percak, a Lawrence English major who is good in math and Fortran too, how to operate the system.

On December 13th and 14th, 1971, we gave the system a massive and grueling test, asking it to produce from the scanner tape of part 5, volume I, all casts of plays by O'Keefe, arranged alphabetically by play, and to produce from part 4, volume III, all performances by 40 actors important in Sheridan's plays, arranged by actor in one printout and arranged by role in another. The system passed with flying colors. Although this early output cannot be definitive, due to errors in the text to be weeded out in the next phase, it was produced according to specifications actually laid down by two of our editors for their own research purposes, and it proves that our programs can successfully sift really large masses of material.

In developing a service like this, especially because there are so few examples to serve as models, we should work as closely as possible with the community of scholars we intend to serve. To this end, at the meeting last month of the Modern Language Association, a seminar was held on the topic, "The Future and Expansion of The London Stage Information Bank." It was conceived and organized by David Mann of Miami (Ohio), who became interested in computers and the stage after making a Congreve concordance by computer, to be published in the Cornell series. David has generously donated his tape of the works of Congreve for inclusion in the Information Bank, where we hope it will be the forerunner of a large collection of play texts, filling in the bare facts of the theatrical calendar with actual lines spoken on the stages. 24 people participated in the seminar. Dean G. W. Stone, as chairman, listed the biggest problems facing us:

1. Organizing in compatible form the masses of material at hand.
2. The expense of retrieving sets of information from this mass by individual scholars.
3. Interpreting the exciting new combinations that one may come upon by our method.
4. Reducing reams of printout by microcopy to reduce wear and tear, and the time spent later on duplication.
5. Planning in advance of any new publication the possibility of composing on machine-readable tapes which can be transferred to a disc-type data bank.
6. Choosing suitable items for extending the information bank.
7. Finding funds.

Muriel Friedman then spoke about the way in which LSIB and her research on the prolific playwright O'Keefe impinged. Having already compiled the casting data "by hand" from the printed pages of the text, she was in a unique position to judge the value of machine work on the same material. Leonard Leff spoke on his study of the casting of Sheridan's plays, pointing out how listings from LSIB of actors' stage careers could serve as a clue to Sheridan's motives for picking the actors for his plays and thus as clues to Sheridan's own understanding of these plays. Harold Moss, who has completed independently a computer-assisted correlation of the content of 3,000 songs from ballad operas, showing how highly imitative they were of each other, discussed ways in which LSIB might help in further research on songs of the period. David Mann closed the formal presentations by suggesting some advantages to be gained by adding play texts to our information store. My communication from London, suggesting new lines of research that might be opened up by the existence of fast machine access to a large store of information on a single area of research, was circulated. Discussion following the presentations centered on the problem of devising a retrieval system that would work for materials widely divergent in form and content, on the ever-present problem of costly duplication of effort in parallel computer projects, and on the problem of financial support for LSIB.

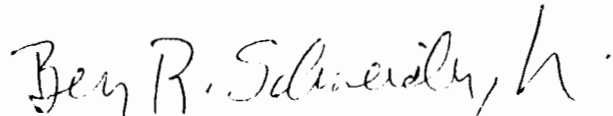
Dean Stone announced that the Society for Theatre Research had generously made available for inclusion in the information bank their bibliographical publication, English Theatrical Literature, based on Robert Lowe's work of that name and compiled by James Arnott and John Robinson. He also announced the granting by the National Endowment for the Humanities of \$85,000, of which we would have to raise half, for the completion of the information service in two more years. He was encouraged by those assembled to request continuation of the seminar at the next MLA meeting.

At this point in the development of LSIB, our programs are concentrated on the interpretation and analysis of the calendar, and more particularly on the part of the calendar that gives casting information about roles, songs and dances, and the actors, singers and dancers who performed them. The computer breaks down a performance entry (the program at a particular theatre on a particular day, including comments) into component parts and identifies these as date, theatre, title, performer and performance. Although we have tagged as such all proper names and titles occurring in comments and parenthetical parts of cast lists, we have still to develop programs capable of identifying words and phrases connected with such information as benefit performances, receipts, command performances, revivals, standard notices, and so forth. Programming to retrieve information from parenthetical text in the calendar is planned for the next phase of the project. Also still before us is an exhaustive proofreading of the whole text as it appears on

tape, to correct typing errors and to revise the form of statement when it varies from the form expected by the computer. Further, the Arnott-Robinson bibliography is to be subjected to the same analysis and conversion process already undergone by The London Stage. We will be ready to add other basic sources when they become available.

That's the news for now. Do you know of any prospective donors in your part of the world who might be interested in a project involving the theatre and computers? What other basic sources of information on the Restoration and 18th Century stage would be advisable to include in our data base? Do you know of any likely sources in process of publication the printing of which might yield machine-readable tapes for which we should negotiate? Is it likely that your own research may use LSIB in some way? (When we are operational in 1974 we will start providing answers to queries on a first come first served basis.) Answers to these questions will be most welcome as an aid to future planning.

Yours sincerely,

A handwritten signature in cursive script that reads "Ben R. Schneider, Jr." followed by a small flourish.

Ben R. Schneider, Jr., Director
2, Gloucester Crescent
London, NW1 7DS
England

RECEIVED

DEC 26 1972

*** NEWSLETTER NO. 3 ***

PRESIDENT

The London Stage Information Bank

Lawrence University
Appleton, Wisconsin 54911
December 1972

Word has just come that the Mellon Foundation has given us funds to equal the large outstanding part of our offer from The National Endowment for the Humanities, conditional on our securing a matching sum. With help also from Mr. William Bradford of Easton, Pennsylvania, to whom we are also extremely grateful, our budget goal for phase two of the project has been reached.

In phase one, all eleven volumes of The London Stage, 1660-1700 were converted to computer tape, and programs were written for locating errors, for identifying items, for filling in "As 22 Sept" references to casts, and for retrieving and sorting calendar items. I attach a sample of output showing how individual records of an actor playing a role at a theatre on a date may be sorted by actor, then play, then role, then date to show each actor's repertoire in its historical relations. The same records might have been sorted by role and date to emphasize the history of the roles. The program sorts all categories of information at once in any order.

A major task of phase two will be to develop a system by which the converted text of these volumes may be edited on a cathode ray tube terminal (a typewriter with a TV screen for a page). On demand, passages from LS may be made to appear on the screen. After positioning a marker at the desired place, one may insert, delete, or change text while the device automatically expands or contracts the text to compensate for the change. For the first time in the history of mankind, it is possible to alter bad text without reinscribing any good text. This capacity will be a boon to the machine-readable London Stage, which in addition to having had to be reinscribed by typists onto computer tape has still to be normalized in many places where items are not presented according to the syntax required by our programs. Since further changes will not necessitate further reinscribing, no further errors can be introduced and the text must forever increase in accuracy.

Besides programming for this terminal, phase two will also include refinement of existing programs, for instance enabling our sorting program to find last names of people even when they are hidden among titles, initials, forms of address, and additions.

I am often asked what sorts of information people will want to get from our retrieval service. Subjects of enquiries to date give some indication of what we may expect, and suggest some of the many possibilities for machine-assisted research in this vast collection of facts. I shall simply list them: identity of Mrs. Mirthwit for edition of Moll Flanders (E. Kelly, SUNY Oneonta); location of quote from Dryden (D. Gibbs, MD, Lichfield, Staffs); misbehavior of Templars, for Smollet edition (G. Rousseau, California-Berkeley); Sheridan's plays (M. Auburn, Ohio); casting of Sheridan's plays (L. Leff, Illinois-DeKalb); O'Keefe's plays (Muriel Friedman, Loyola); Staging of Shakespeare (M. Rosenberg, California-Berkeley); role names (Peter Tasch, Temple); actors (W. Coleman, Drake); popularity of plays, box receipts, index to comments, (L. Conolly, Alberta); Italian actors (P. Koch, Pittsburgh); French influence (E. Walker, Toronto); Poland and Poles (E. Bojarski, McMurray); Spanish influence (Mildred Boyer, Texas); comparative statistics--comedy, tragedy, pantomime, J. Parisi (Roosevelt); Commonwealth theatrical people in Restoration (W. Williams, Illinois-DeKalb); singers, composers, librettists, dancers (Olive Baldwin and Thelma Watson, Bristol, England);

Information for series of books on Social History of English Theatre (J. R. Brown, Sussex, General Editor); statistics on satirical plays, 1720-50 (Jean Kern, Coe); 18th century vocabulary for OED (R. W. Burchfield, Oxford); Eliza Heywood's stage career (Marcia Heinemann, Chicago); Rich's offerings as manager (Paul Sawyer, Bradley); materials for catalogue of restoration theatre music (S. Lincoln, CUNY).

We have sent an exhaustive breakdown of all actors' repertoires in one volume of The London Stage to Messrs. Highfill, Burnim, and Langhans to try out as an aid in compiling their Biographical Dictionary of Actors. Their response to these first fruits of LSIB, even in this unedited form, is that the printouts are "crucial" to their enterprise, and they want more of the same as fast as we can produce them. While on sabbatical in England last year I sent a sample of printout to Irving Wardle, drama critic of the London Times, to see if he felt this kind of thing might be useful in his profession. He thought that LSIB was "potentially a very useful source," and asked to be added to our newsletter list.

There is considerable interest also in the project among people who see it as a technical model rather than simply a source of information. Computer people at Princeton, Skidmore, Drexel, Western Ontario, and Louvain have asked for information about the project. Scholars thinking of computer applications to their own research problems have consulted me about LSIB: their number includes Emmett Bedford, Wisconsin-Parkside (concordance to Pope); Pauline Ryan, Oxford (analysis of Hausa material); Thomas Berger, St. Lawrence (collation of Shakespeare); and Vincent Ryan, California Press (converting text for computer). At a conference in Edinburgh, I was invited to participate in the planning of the Dictionary of Early Modern English Pronunciation edited by Bror Danielsson, Stockholm. R. W. Burchfield (Oxford English Dictionary Supplement) and Angus Cameron (Toronto) and C. J. E. Ball (Oxford), editors of the new Dictionary of Old English, have expressed interest in the project. Richard Venezky (Wisconsin), who is the computer consultant for the latter dictionary and who helped LSIBat its inception, has reported on the project at a Conference on Computers and Developing Nations at Tel Aviv. The following periodicals have made enquiries and carried news of it: The British Studies Monitor, The Historical Methods Newsletter, New Scientist, Computerworld, The London Times, The Forum of the Special Interest Group in Information Retrieval of the Association for Computing Machinery, and the Newsletter of Special Interest Group in Language Analysis and Studies in Humanities of the same Association. I have been invited to talk about the project at the Society for Research in English Literature (London), the Drama Department (Glasgow), the Computer Science Department (Westfield College, London), the conventions of the Midwest Modern Language Association and of the American Society for Information Science, and at a Symposium on the Case for a British Theatre Institute, in London. The last mail brought a request for a copy of an "ouvrage" called "The London Stage Information Bank, 1972," from the Ministere de l'Education Nationale, Paris. I could only send them old newsletters to explain that we are a project, not a book.

The number of enquiries about the project continues to surprise me. Some of it stems, I think, from the uniqueness of The London Stage itself, the like of which the data-processing industry has never seen. Another reason seems to be the novelty of the typing-scanning method of conversion that its 21,000,000 characters forced us to discover.

On 5 April, 1972, the British Part of the project's Advisory Board met. Present were Miss Sybil Rosenfeld (Society for Theatre Research), Professors W. A. Armstrong (Westfield College, London), J. F. Arnott (Glasgow), Cecil Price (Swansea), and Mr. Simon Trussler (Theatre Quarterly), and I.

The principal topic of discussion was how LSIB might best serve the British com-

munity of scholars and critics. One problem was the location of an English center for storing and processing tapes of the data base to facilitate efficient access for British scholars. The universities of Swansea, London, and Glasgow were preferred as possible sites of the British base because members of the Advisory Board were members there; compatibility of LSIB with the computer systems of these universities is being investigated. Financing the information service might be achieved by a fee charged to the individual user, similar to a fee charged for microfilm; but the board preferred financing by means of an annual subscription by academic institutions or departments enabling their members to use the service free of charge.

We also discussed the place of LSIB in the structure of British theatrical institutions. Mr. Simon Trussler, who is a member of the working party for a British Theatre Institute, was able to report that a proposal for an Institute had been presented to the Minister of Education for action. He could say that, although means of preserving records of current theatre were uppermost in their planning, LSIB was thought of as having a place in the prospective Institute and that his group hoped that a continuation of LS into the 19th century would eventually be forthcoming. The board felt that limiting expansion of LSIB to records related to theatre from 1660-1800 was desirable especially at first, if we were to discover the true potential of such a service. However, the opinion had some support that if expansion outside these limits did take place, a continuation of LS into the 19th century would have first priority.

Board members suggested these records as possible additions to the data base: Loewenburg's Annals of Opera; North American performances of plays; theatre outside London; Dibdin's History of the Edinburgh Stage; W. S. Clark's work on the Dublin stage; Father Stratman's bibliography of plays; Mrs. Larpent's Diary; Shirley Karman's Steele; the Wesleyan edition of Fielding's plays; items in the Regents Series.

As previously announced, we shall be adding to our data base in phase two the Arnott-Robinson bibliography English Theatrical Literature, 1559-1900 and the late Father Stratman's bibliography Restoration and Eighteenth Century Theatre Research, 1900-1968. SEL (summer 1972) heralds Father Stratman's work as a major bibliographical effort, and continues, "There is a pressing need to find alternatives that will allow for almost continuous updating of important bibliographical information," and to explore "new techniques and methods of information retrieval if ... bibliographical compilation is to be carried on at a rate commensurate with the needs created by increases in productive research."

Beside these works, we are considering the addition of several other sources of information on theatre in the period of The London Stage. David Mann (Miami) has offered the tape produced in the creation of his concordance to Congreve's plays. William Williams (De Kalb) has offered a tape of his computer-compiled index to The Stationer's Register, 1640-1708, and Paule St. Marie (Montreal) her tape of Moliere's plays. A classification into types of all plays from 1660-1747 by Joseph Parisi (Roosevelt), a list of role names being compiled by Peter Tasch (Temple), and an edition of The Grub Street Journal by Bertrand Goldgar (Lawrence) may also be available to us.

When phase two ends officially on 1 September 1974, we will be able to offer a retrieval service capable, we hope, of finding any kind of thing that can be classified as some kind of thing from The London Stage and the two bibliographies. Some of the other sources I have mentioned may also be "on line." Meanwhile, if your research might make use of LSIB in any way, please let me know, so that we may be sure to accommodate our service to your needs if at all possible.

Yours sincerely,

Ben R. Schneider, Jr.

Ben R. Schneider, Jr., Director

1748	5	9	dl	The Merchant of Venice	Prologue	Garrick
1747	11	18	dl	The Orphan	Chamont	Garrick
1747	11	19	dl	The Orphan	Chamont	Garrick
1747	11	20	dl	The Orphan	Chamont	Garrick
1747	11	21	dl	The Orphan	Chamont	Garrick
1747	11	30	dl	The Orphan	Chamont	Garrick
1747	12	19	dl	The Orphan	Chamont	Garrick
1748	1	20	dl	The Orphan	Chamont	Garrick
1748	3	31	dl	The Orphan	Chamont	Garrick
1748	10	11	dl	The Orphan	Chamont	Garrick
1748	11	10	dl	The Orphan	Chamont	Garrick
1749	1	28	dl	The Orphan	Chamont	Garrick
1749	3	20	dl	The Orphan	Chamont	Garrick
1747	11	10	dl	The Provoked Wife	Sir John Brute	Garrick
1747	11	11	dl	The Provoked Wife	Sir John Brute	Garrick
1747	11	28	dl	The Provoked Wife	Sir John Brute	Garrick
1747	12	15	dl	The Provoked Wife	Sir John Brute	Garrick
1748	1	14	dl	The Provoked Wife	Sir John Brute	Garrick
1748	2	11	dl	The Provoked Wife	Sir John Brute	Garrick
1748	10	18	dl	The Provoked Wife	Sir John Brute	Garrick
1748	12	22	dl	The Provoked Wife	Sir John Brute	Garrick
1747	11	16	dl	The Recruiting Officer	Plume	Garrick
1747	12	2	dl	The Recruiting Officer	Plume	Garrick
1748	11	1	dl	The Recruiting Officer	Plume	Garrick
1747	9	19	dl	The Refusal	Occasional Prologue	Garrick
1747	9	29	dl	The Refusal	Occasional Prologue	Garrick
1747	10	28	dl	The Refusal	Occasional Prologue	Garrick
1748	1	23	dl	The Refusal	Occasional Prologue	Garrick
1748	4	22	dl	The Refusal	Occasional Prologue	Garrick
1747	10	15	dl	The Stratagem	Archer	Garrick
1747	12	1	dl	The Stratagem	Archer	Garrick
1748	1	25	dl	The Stratagem	Archer	Garrick
1748	3	29	dl	The Stratagem	Archer	Garrick
1748	11	11	dl	The Stratagem	Archer	Garrick
1749	1	17	dl	The Stratagem	Archer	Garrick
1749	3	18	dl	The Stratagem	Archer	Garrick
1749	4	8	dl	The Stratagem	Archer	Garrick
1747	12	4	dl	The Suspicious Husband	Parts	Garrick
1747	12	5	dl	The Suspicious Husband	Ranger	Garrick
1747	12	7	dl	The Suspicious Husband	Ranger	Garrick
1747	12	8	dl	The Suspicious Husband	Ranger	Garrick
1747	12	9	dl	The Suspicious Husband	Ranger	Garrick
1747	12	21	dl	The Suspicious Husband	Ranger	Garrick
1748	1	16	dl	The Suspicious Husband	Ranger	Garrick
1748	2	5	dl	The Suspicious Husband	Ranger	Garrick
1748	9	27	dl	The Suspicious Husband	Ranger	Garrick
1748	12	29	dl	The Suspicious Husband	Ranger	Garrick
1749	1	31	dl	The Suspicious Husband	Ranger	Garrick
1749	3	13	dl	The Suspicious Husband	Ranger	Garrick
1749	4	26	dl	The Suspicious Husband	Ranger	Garrick
1748	11	8	dl	Venice Preserv'd	Jaffier	Garrick
1748	11	14	dl	Much Ado about Nothing	Benedick	Garrick

Part of Garrick's work

Seasons of

1747-8

and

1748-9

only

♦♦♦ NEWSLETTER NO. 4 ♦♦♦

THE LONDON STAGE INFORMATION BANK

LAWRENCE UNIVERSITY

APPLETON, WISCONSIN 54911

DECEMBER 1973

SINCE I WROTE TO YOU ABOUT A YEAR AGO, THE LONDON STAGE PROJECT HAS TRAVELED A ROCKY ROAD; BUT THE HIGHWAY AHEAD LOOKS SMOOTHER, AND WE ARE PICKING UP SPEED. IN PHASE ONE THE WHOLE ELEVEN VOLUMES OF THE LONDON STAGE, 1660-1800, WERE CONVERTED TO COMPUTER TAPE AND PROGRAMS WERE COMPLETED FOR IDENTIFYING, SELECTING AND TABULATING CAST LIST ITEMS. IN PHASE TWO, BEGUN ON 1 AUGUST 1972, OUR GOAL IS TO PERFECT OUR TAPES, GENERATE A COMPREHENSIVE INDEX TO ALL NAMES AND TITLES, AND ADD TO OUR INFORMATION BASE THE ARNOTT-ROBINSON-LOWE BIBLIOGRAPHY, ENGLISH THEATRICAL LITERATURE, 1559-1800, AND FATHER CARL STRATMAN'S BIBLIOGRAPHY, RESTORATION AND EIGHTEENTH CENTURY THEATRE RESEARCH, 1900-1968. PHASE TWO HAS FALLEN UPON HARD TIMES.

TO ACCOMPLISH FINAL EDITING OF OUR TAPES BY THE MOST EFFICIENT METHOD WE KNEW OF, WE PLANNED TO USE A CATHODE RAY DISPLAY TERMINAL (LIKE THAT USED BY AIRLINE TICKET AGENTS) ATTACHED TO LAWRENCE'S TIME-SHARING COMPUTER (FIFTEEN OTHER PEOPLE CAN USE IT AT THE SAME TIME). PASSAGES OF TEXT STORED IN THE COMPUTER'S MEMORY CAN BE CALLED TO THE SCREEN, FIXED, AND SENT BACK TO THEIR ORIGINAL PLACE. FUNDS FOR THIS DEVICE DID NOT MATERIALIZE UNTIL DECEMBER 1972, FOUR MONTHS AFTER OUR GRANT PERIOD HAD BEGUN. EARLY IN JANUARY, WE ORDERED A DISPLAY TERMINAL AND AN INTERFACE TO INTRODUCE IT TO THE COMPUTER. IN MID-APRIL THE TERMINAL ARRIVED, A BIT AHEAD OF TIME. IN THE MIDDLE OF JUNE, THE COMPUTER MANUFACTURER DELIVERED THE INTERFACE, A MONTH AND A HALF LATE. ON THE 20TH OF JULY HE GOT AROUND TO INSTALLING IT. ON THE 30TH OF JULY WE DISCOVERED THAT THE COMPUTER'S TIME-SHARING SYSTEM MADE GARBAGE OUT OF ANY TRANSMISSION FROM THE SCREEN LONGER THAN TWO LINES. WITH NO HELP FROM THE MANUFACTURER WE SUCCEEDED IN RECONSTRUCTING THE TIME-SHARING SYSTEM TO ACCEPT LONG TRANSMISSIONS ON THE 22ND OF AUGUST.

DURING THE MONTH OF SEPTEMBER SO MANY DIFFERENT THINGS WENT WRONG WITH THE COMPUTER THAT IT WAS NO USE TO US.

ON ABOUT THE FIRST OF OCTOBER, REID WATTS, A GRADUATE OF KANSAS UNIVERSITY IN MATH, PHYSICS, AND COMPUTER SCIENCE WHO HAD JOINED THE PROJECT AS SYSTEM DESIGNER AND PROGRAMMER IN MAY AND WHO HAD BEEN ABLE TO USE THE TERMINAL ONLY TWO WEEKS SINCE THEN, VERY RESOURCEFULLY PROVIDED US WITH A BASIC SEARCH PROGRAM SUFFICIENT TO LET US BEGIN EDITING LONDON STAGE TAPES. TWO NIMBLE-FINGERED, SHARP-EYED UNDERGRADUATES, SUZANNE FUSCO AND SUSAN KOCH, JOINED THE PROJECT AS TEXT-EDITORS, AND PHASE TWO WAS UNDER WAY ABOUT ONE YEAR BEHIND SCHEDULE.

WE HAVE ASKED FOR AND BEEN GRANTED BY THE NATIONAL ENDOWMENT FOR THE HUMANITIES, WHOSE MATCHING GRANT SUPPORTS THE PROJECT, PERMISSION TO EXTEND THE DEADLINE FOR PHASE TWO ONE YEAR, TO 1 SEPTEMBER 1975. I AM SORRY THAT WE WILL BE UNABLE TO SUPPLY RELIABLE INFORMATION FROM OUR TAPES UNTIL THAT DATE. BUT IF YOU ARE INTERESTED IN USING THE LONDON STAGE INFORMATION BANK AND HAVE NOT YET COMMUNICATED YOUR NEEDS, PLEASE DO SO AS SOON AS POSSIBLE, SO THAT WE CAN TAKE ACCOUNT OF THEM IN FUTURE DEVELOPMENTS.

THERE ARE FIVE REASONS WHY OUR TAPE OF THE LONDON STAGE CONTAINS ERRORS: 1) THE ORIGINAL TEXT CONTAINED SOME ERRORS; 2) ERRORS WERE INTRODUCED BY EDITORS WHO MARKED THE TEXT FOR TYPING; 3) THE TYPISTS MADE SOME ERRORS; 4) THE OPTICAL SCANNING MACHINE WHICH READ THE TYPING ONTO OUR TAPES MADE SOME MISTAKES; AND 5) SOME CORRECT PASSAGES APPEAR WRONG TO OUR PROGRAMS, WHICH HAVE A VERY RIGID NOTION OF THE PROPER SYNTAX FOR EXPRESSING CAST LISTS. IT IS EASIER TO "CORRECT" THE SYNTAX THAN TO WRITE PROGRAMS THAT WILL ACCOUNT FOR ALL VARIATIONS IN THE STRUCTURE OF AN ENTRY. TO MAKE CORRECTIONS OF THE COMPUTER TEXT, WE CALL THE OFFENDING PASSAGE TO THE SCREEN BY SIMPLY QUOTING IT. WE USE ELLIPSES TO INDICATE THAT AN OPTIONAL AMOUNT OF UNSPECIFIED TEXT IS TO ACCOMPANY THE SPECIFIED PORTION. FOR EXAMPLE, TYPISTS BEGIN EVERY PERFORMANCE ENTRY WITH "♦P" FOLLOWED BY THE DAY OF THE MONTH, AND EVERY AFTERPIECE, DANCE, SONG OR OTHER SECTION WITH "♦" PLUS A LETTER INDICATING WHICH KIND IT IS. THEREFORE, TO CALL UP A WHOLE PERFORMANCE ON THE 22ND OF A MONTH, WE QUOTE "♦P22...♦P". IF WE WANT TO FIX A MISSPELLED WORD, WE CAN SIMPLY QUOTE THE MISSPELLING, AS WE DO WHEN WE SEE "ÜTHELD" ON A PRINTOUT. IN ONE VOLUME, THE EDITOR PUT REFERENCES TO PREVIOUS CASTS AT THE END OF A CAST LIST ENTRY INSTEAD OF BEFORE, WHERE THE COMPUTER UNDERSTANDS THEM. WE ROOT ALL THESE OUT BY SEARCHING FOR SECTIONS DEFINED AS: "♦...BUT SEE...♦"

THIS METHOD OF SEARCH BY QUOTATION ALLOWS US TO LOOK FOR ANY STRING OF CHARACTERS IN THE TEXT, DESCRIBED AS SPECIFICALLY OR AS GENERALLY AS WE WISH AND SURROUNDED BY ANY AMOUNT OR TYPE OF CONTEXT. WE CAN LOOK FOR ANY WORD, ANY PHRASE, ANY SYLLABLE, ANY ARBITRARY STRING OF PUNCTUATION, CHARACTERS AND SPACES, IN ANY CONTEXT DEFINED THE SAME WAY. BY MEANS OF ELLIPSES WE CAN MAKE ANY AMOUNT OF TEXT OPTIONAL, AT THE BEGINNING, MIDDLE, OR END OF OUR QUOTATION. TO MAKE THE POSSIBILITIES EVEN MORE GENERAL, WE HAVE DEFINED SOME CHARACTERS OF A SPECIAL SET ON OUR TERMINAL--NOT UPPERCASE, LOWERCASE, OR BOLDFACE, BUT DIMFACE--AS KINDS OF CHARACTERS: DIMFACE X IS ANY CHARACTER, DIMFACE N IS ANY NUMBER, DIMFACE L IS ANY LETTER, DIMFACE S IS ANY SMALL LETTER AND DIMFACE K IS ANY CAPITAL. (DIMFACE C ISN'T AVAILABLE; IT CANCELS YOU.) THIS SCHEME MAKES IT POSSIBLE FOR US TO CALL FOR A WIDE VARIETY OF TEXTUAL CONFIGURATIONS IN A WIDE VARIETY OF CONTEXTS. TO FIND PERSONS HAVING AN INITIAL WE CAN QUOTE "K. K... ", WHERE "K" STANDS FOR ANY CAPITAL. THE SPACE BEFORE THE FINAL QUOTATION MARK GUARANTEES THAT WE WILL GET HIS LAST NAME ONLY, NOT THE WHOLE PAGE FOLLOWING HIS NAME.

THE SYSTEM OF FINDING TEXTUAL ELEMENTS BY QUOTATION IS OF COURSE NOT RESTRICTED TO EDITING ALONE. IT IS ALSO A MOST USEFUL SEARCH AND RETRIEVAL TOOL. THE PROGRAMS DEVELOPED IN PHASE ONE FOR SEARCHING, SORTING AND TABULATING CAST LISTS CANNOT MANAGE COMMENTS AND OTHER PARENTHETICAL MATERIAL IN A TYPICAL ENTRY. FOR THESE WE REQUIRE A MORE FLEXIBLE AND SENSITIVE TOOL. THIS SYSTEM FOR INTERACTIVE TEXT-PROCESSING, ANALYSIS, AND RETRIEVAL (KNOWN TO THE COMPUTER AS SITAR) WILL ENABLE US TO HELP SCHOLARS ANSWER SOME OF THEIR MORE INTANGIBLE QUESTIONS. CONSIDER, FOR INSTANCE, THE QUESTION OF FRENCH INFLUENCE. IN A RECENT SESSION WITH SITAR I TRIED LOOKING FOR EVIDENCE USING THE SAME SORT OF CLUES I WOULD USE IF I WERE SCANNING IT WITH MY EYE.

FIRST I SEARCHED FOR THE WORD "FRENCH", WHICH IS ALSO A ROOT, AND DISCOVERED FIRST A FRENCHMAN IN HENRY V, THEN AN INTERLUDE CONTAINING A FRENCH, IRISH, SCOTTISH AND ENGLISH SAILOR, FOR THE STATED PURPOSE OF ILLUSTRATING NATIONAL CHARACTERISTICS. THEN I FOUND AN ADVERTISEMENT FOR LODGINGS FOR THE SEASON IN FAMILIES "BOTH ENGLISH AND FRENCH." I ALSO LOOKED FOR CLUSTERS OF LETTERS PECULIAR TO THE LANGUAGE, LIKE FINAL "LLE". USING THE QUOTATION "♦...LLE ...♦", I LANDED ALL SECTIONS CONTAINING UNMARRIED FRENCH DANCERS, ESPECIALLY Mlle CAPDEVILLE.

AT SEMINAR 59, "COMPUTERIZING THE LONDON STAGE," SCHEDULED FOR FRIDAY MORNING, DECEMBER 28TH AT THE FORTHCOMING MLA MEETING, I PLAN TO DEMONSTRATE SITAR BY MEANS OF A TELEPHONE HOOKUP OF OUR TERMINAL TO THE LAWRENCE COMPUTER. ANYONE INTERESTED SHOULD WRITE PROFESSOR JOSEPH DONOHUE, DEPARTMENT OF ENGLISH, U MASS, AMHERST, WHO IS CHAIRMAN OF THE SEMINAR.

SITAR ALSO WORKS MARVELOUSLY FOR WRITING THINGS LIKE NEWSLETTERS. OUR TERMINAL IS A TYPEWRITER THAT FORGIVES ALL MISTAKES. I CAN WRITE ON TOP OF MISTAKES, DELITERATING THEM WITHOUT A TRACE, AND INSERT OR DELETE AS MUCH AS I WANT WITHOUT AFFECTING THE REST. THE TERMINAL EXPANDS OR CONTRACTS THE TEXT TO FIT THESE CHANGES FASTER THAN THE EYE CAN SEE. THE FINISHED PRODUCT, HOWEVER, MUST BE PRINTED ON ANOTHER TERMINAL WHOSE TYPEFACE, AS YOU CAN SEE, LEAVES SOMETHING TO BE DESIRED. OUR SETUP WORKS WELL FOR COPYING NEW TEXT INTO THE COMPUTER. BESIDES EDITING, SUSAN AND SUZANNE HAVE EXPERIMENTED WITH ENTERING THE ARNOTT-ROBINSON-LONE BIBLIOGRAPHY. PRELIMINARY FINDINGS INDICATE THAT A METHOD AS FAST, ACCURATE AND ECONOMICAL AS THIS WILL COST 1/4TH THE AMOUNT/CHARACTER THAT WE PAID FOR CONVERTING THE LONDON STAGE BY TYPING AND SCANNING. THE IMPUNITY WITH WHICH A TYPIST CAN MAKE MISTAKES ON SUCH AN EASILY-CORRECTIBLE MEDIUM, BY REDUCING TENSION ABOUT ERRORS, INCREASES BOTH SPEED AND ACCURACY; AND THE WHOLE PROCESS INVOLVES ONLY ONE STEP FROM KEYBOARD TO COMPUTER. THIS DIVIDEND OF SITAR IS GOOD NEWS NOT ONLY FOR US BUT MAY ALSO BE A GOOD OMEN FOR JOE DONOHUE, WILLIAM ELLIS, AND THEIR COHORTS WHO ARE ABOUT TO UNDERTAKE THE LONDON STAGE, 1800-1900, WITH THE ASSISTANCE OF THE COMPUTER.

YOURS SINCERELY,

Ben R. Schneely H.
Director

◆◆◆ NEWSLETTER NO. 5 ◆◆◆
THE LONDON STAGE INFORMATION BANK

LAWRENCE UNIVERSITY

APPLETON, WISCONSIN 54911

JANUARY 1975

AS THE TERMINAL DATE FOR THE PROJECT (SEPTEMBER 1975) RAPIDLY APPROACHES, I CAN ANNOUNCE REASONABLE PROGRESS TOWARD THAT GOAL. EDITING THE COMPUTER VERSION OF THE TEXT HAS BEEN AND REMAINS OUR PRINCIPAL ACTIVITY. DURING THE PAST YEAR AND ONE-HALF, 14 STUDENT EDITORS HAVE KEPT OUR EDITING TERMINAL BUSY NEARLY EVERY AFTERNOON AND EVENING HOUR, AND EVERY WEEKEND AND VACATION DAY. THEY HAVE VIRTUALLY ELIMINATED TYPOGRAPHICAL ERRORS AND MOST DEVIATIONS IN PUNCTUATION AND SYNTAX THAT CAUSE OUR PROGRAMS TO GO ASTRAY. A NUMBER OF COMPLEX DEVIATIONS REQUIRE EDITORIAL DECISIONS THAT ONLY A THEATRE HISTORIAN WHO KNOWS HOW OUR PROGRAMS WORK CAN MAKE. I AM AT PRESENT THE ONLY SUCH PERSON, BUT BEGINNING NEXT FALL OTHERS MAY COME INTO BEING. UNTIL THEN THESE FINAL REVISIONS WILL GO SLOWLY. WHEN SEPTEMBER COMES, HOWEVER, I BELIEVE I CAN DELIVER AS PROMISED PROOFS OF THE INDEX TO NAMES AND TITLES THAT IS TO ACCOMPANY THE PUBLISHED VOLUMES OF THE LONDON STAGE FOR THE EDITORS OF THESE VOLUMES TO CORRECT. ALSO, AT THIS TIME A COMPUTER VERSION OF THE TEXT ACCURATE ENOUGH TO SERVE AS A BASE FOR TABULATIONS COMPILED IN ANSWER TO SCHOLARS' QUERIES (WE HAVE A BACKLOG OF 17 NOW) WILL BEGIN TO MATERIALIZE. THIS "DATA BASE" WILL BE COMPLETED IN SECTIONS, AND IN RESPONSE TO DEMAND WE WILL BEGIN IN THE MIDDLE OF THE CENTURY AND WORK TOWARD THE END; THE EARLY PART OF THE CENTURY WILL BE FINISHED LAST. COMPILATIONS OF ACTORS' REPERTOIRES WITH ROLES IN ALPHABETICAL ORDER AND THE THEATRE AND DATE OF EACH PERFORMANCE; OFFERINGS AT COMPETING THEATRES, ARRANGED TO SHOW SIMILARITIES AND DIFFERENCES; ACTORS OF ALL SHAKESPEAREAN ROLES, ARRANGED ALPHABETICALLY BY ROLE, SHOWING THE DATE AND THEATRE OF EACH PERFORMANCE--AN INFINITE VARIETY OF TABULATIONS OF THE REITERATED INFORMATION IN THE LONDON STAGE, TAILORED TO THE INDIVIDUAL SCHOLAR'S NEED, WILL BE AVAILABLE AT LAWRENCE'S COST IN HUMAN AND MACHINE TIME. GARRICK'S REPERTOIRE (2500 ROLES) WOULD COST ABOUT \$80.

IF ARRANGEMENTS WITH THE THEATRE DEPARTMENT OF THE UNIVERSITY OF WISCONSIN AT MADISON GO ACCORDING TO PLAN, TWO STUDENTS IN THEATRE HISTORY WHO WANT TO LEARN COMPUTER METHODS OF RESEARCH WILL SPEND FOUR DAYS A WEEK AT LAWRENCE (2 DAYS APIECE) STARTING NEXT FALL. IN RETURN FOR EDITING ASSISTANCE, I WILL INTRODUCE THEM TO SOME OF THE MYSTERIES OF COMPUTING. IF ANY OTHER THEATRE HISTORIANS ARE INTERESTED IN DOING THE SAME, PLEASE DO NOT HESITATE TO APPLY.

A FULL ACCOUNT OF THE LONDON STAGE INFORMATION BANK HAS JUST BEEN PUBLISHED BY ADDISON-WESLEY. IT IS CALLED "TRAVELS IN COMPUTERLAND," AND I AM THE AUTHOR. IF YOU REQUIRE OR MAY REQUIRE INFORMATION FROM THE BANK AND HAVE NOT COMMUNICATED WITH ME, PLEASE DO SO, SO THAT WE MAY INCLUDE YOUR NEEDS IN OUR PLANS.

YOURS SINCERELY,

Ben Ross Schneider, Jr.
BEN ROSS SCHNEIDER, JR.
DIRECTOR

*** NEWSLETTER NO. 6 ***
The London Stage Information Bank

Lawrence University

Appleton, Wisconsin 54911

September 1975

A N N O U N C E M E N T

The London Stage Information Bank at Lawrence University now has provisional indexes to all names and titles in The London Stage, 1660-1800, "A Calendar of Plays & Afterpieces, Together with Casts, Box-receipts and Contemporary Comment, Compiled from the Playbills, Newspapers and Theatrical Diaries of the Period", edited by van Lennep, Avery, Scouten, Stone and Hogan, Southern Illinois University Press, 1960-1968, 11 volumes, 8000 pages. Indexes from 1740 to 1791 (about 2/3rds of the total) are the fruits of a second editing pass through the computer version of the text, and the second pass for the rest is in progress. A third pass will pick up the remaining errors. We have computer programs that will search the entire corpus for anything it contains. Meanwhile, our grant has run out, we have valid information, and scholars are waiting for it. Therefore, in exchange for contributions to our editing fund, we are ready to supply information to scholars.

Fees will be based on our estimate of the time we save the scholar-- on how much text we search, how many "hits" we sort, how long a list we print. In other words, how much page-scanning, note-taking and filing he doesn't have to do. The formula will be one cent per page scanned plus one cent per item sorted plus one cent per item printed plus postage. For example, we would calculate the price for providing Garrick's career (2500 appearances), sorted by role to show his repertoire, thus:

Search 2373 pages	\$23.73	
Sort 2500 items	25.00	
Print 5000 items	50.00	(original list & role sort)
Postage	5.00	
TOTAL	103.73	

The original list of hits would display the record chronologically. Samples are printed versos. One line is one item. The cost to locate names or titles in provisional indexes will be one cent per page you wish covered times the number of different items. These indexes give theatre and date only.

If you pay for the information from a research grant, we ask that you budget twice as much, for the same reason that institutions pay extra for journals. We need this kind of subsidy, too.

I will be happy to make estimates.

Yours sincerely,

Ben Ross Schneider, Jr., Director

*will suggest
this when I
estimate*

*** NEWSLETTER NO. 6 ***
The London Stage Information Bank
Lawrence University Appleton, Wisconsin 54911

October 1975

A N N O U N C E M E N T

The London Stage Information Bank at Lawrence University now has provisional indexes to all names and titles in The London Stage, 1660-1800, "A Calendar of Plays & Afterpieces, Together with Casts, Box-receipts and Contemporary Comment, Compiled from the Playbills, Newspapers and Theatrical Diaries of the Period", edited by van Lennep, Avery, Scouten, Stone and Hogan, Southern Illinois University Press, 1960-1968, 11 volumes, 8000 pages. Indexes from 1740 to 1791 (about 2/3rds of the total) are the fruits of a second editing pass through the computer version of the text, and the second pass for the rest is in progress. A third pass will pick up the remaining errors. We have computer programs that will search the entire corpus for anything it contains. Meanwhile, our grant has run out, we have valid information, and scholars are waiting for it. We are ready to supply it to them.

Fees will be related to the time we save the scholar--on how much text we search, how many "hits" we sort, how long a list we print. In other words, how much page-scanning, note-taking and filing he doesn't have to do. The formula, for an introductory period only, while major editing continues, will be one cent per page scanned plus one cent per item sorted plus one cent per item printed plus postage. For example, we would calculate the price for providing Garrick's career (2500 appearances), sorted by role to show his repertoire, thus:

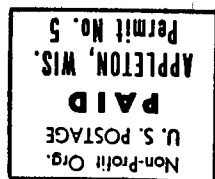
Search 2373 pages	\$23.73	
Sort 2500 items	25.00	
Print 5000 items	50.00	(original list & role sort)
Postage	5.00	
TOTAL	\$103.73	

The original list of hits would display the record chronologically. Samples are printed versos. One line is one item. The cost to locate names or titles in provisional indexes will be one cent per page you wish covered times the number of different items. These indexes give theatre and date only.

I will be happy to make estimates.

Yours sincerely,

Ben Ross Schneider, Jr.
Ben Ross Schneider, Jr., Director



Address correction requested

London Stage Project
Lawrence University
P. O. Box 1847
Appleton, WI 54911

p 1759 12 4	dl	Oroonoko	Oroonoko	Garrick
p 1759 12 5	dl	Zara	Lusignan	Garrick
p 1759 12 6	dl	Oroonoko	Oroonoko	Garrick
p 1759 12 8	dl	Oroonoko	Oroonoko	Garrick
p 1759 12 10	dl	Oroonoko	Oroonoko	Garrick
p 1759 12 11	dl	Oroonoko	Oroonoko	Garrick
p 1759 12 14	dl	Zara	Lusignan	Garrick
p 1759 12 15	dl	Much Ado about Nothing	Benedick	Garrick
p 1759 12 18	dl	The Provok'd Wife	Sir John	Garrick
p 1759 12 20	dl	Jane Shore	Hastings	Garrick
p 1759 12 22	dl	Every Man in His Humour	Kitely	Garrick
p 1759 12 28	dl	Oroonoko	Oroonoko	Garrick
p 1760 1 5	dl	King Lear	King Lear	Garrick
p 1760 1 10	dl	The Suspicious Husband	Ranger	Garrick
p 1760 1 12	dl	Every Man in His Humour	Kitely	Garrick
p 1760 1 15	dl	The Stratagem	Archer	Garrick
p 1760 1 10	dl	Rule a Wife a Have a Wife	Leon	Garrick
p 1760 1 24	dl	The Desert Island	Prologue	Garrick
a 1760 1 24	dl	The Way to Keep Him	Lovemore	Garrick
a 1760 1 25	dl	The Way to Keep Him	Lovemore	Garrick
p 1760 1 26	dl	The Desert Island	Prologue	Garrick
a 1760 1 26	dl	The Way to Keep Him	Lovemore	Garrick
p 1760 1 28	dl	The Desert Island	Prologue	Garrick
a 1760 1 28	dl	The Way to Keep Him	Lovemore	Garrick
p 1760 1 29	dl	The Desert Island	Prologue	Garrick
a 1760 1 29	dl	The Way to Keep Him	Lovemore	Garrick
p 1760 1 31	dl	The Desert Island	Prologue	Garrick
a 1760 1 31	dl	The Way to Keep Him	Lovemore	Garrick
CHRONOLOGICAL RECORD				
p 1742 2 26	gf	Pamela	Jack Smatter	Garrick
p 1744 2 21	dl	Regulus	Regulus	Garrick
p 1744 4 18	dl	Regulus	Regulus	Garrick
p 1742 5 31	dl	Richard III	Richard	Garrick
p 1743 12 17	dl	Richard III	Richard	Garrick
p 1744 1 3	dl	Richard III	Richard	Garrick
p 1744 2 18	dl	Richard III	Richard	Garrick
p 1744 4 7	dl	Richard III	Richard	Garrick
p 1744 5 7	dl	Richard III	Richard	Garrick
p 1744 5 31	dl	Richard III	Richard	Garrick
p 1744 11 3	dl	Richard III	Richard	Garrick
p 1744 12 15	dl	Richard III	Richard	Garrick
p 1745 1 12	dl	Richard III	Richard	Garrick
p 1745 2 12	dl	Richard III	Richard	Garrick
p 1742 3 6	gf	Richard III	Richard III	Garrick
p 1761 4 6	dl	Romeo and Juliet	Mercutio	Garrick
p 1761 4 13	dl	Romeo and Juliet	Mercutio	Garrick
p 1761 4 20	dl	Romeo and Juliet	Mercutio	Garrick
p 1751 9 20	dl	Romeo and Juliet	Romeo	Garrick
p 1752 10 13	dl	Romeo and Juliet	Romeo	Garrick
p 1753 10 4	dl	Romeo and Juliet	Romeo	Garrick
p 1754 10 11	dl	Romeo and Juliet	Romeo	Garrick
p 1755 10 8	dl	Romeo and Juliet	Romeo	Garrick
p 1755 11 11	dl	Romeo and Juliet	Romeo	Garrick
p 1756 4 1	dl	Romeo and Juliet	Romeo	Garrick
p 1756 10 9	dl	Romeo and Juliet	Romeo	Garrick
p 1756 10 11	dl	Romeo and Juliet	Romeo	Garrick
p 1756 10 12	dl	Romeo and Juliet	Romeo	Garrick
ROLE SORT				

Bm
Schneider

*** NEWSLETTER NO. 7 ***

The London Stage Information Bank
Lawrence University Appleton, Wisconsin 54911

June 1978

Since our last Newsletter (October 1975), The London Stage Project has devoted itself to extracting, editing, and annotating an Index to all names and titles in the calendar of performances of The London Stage, 1660-1800. This Index is now in press, and will be published late this year by the Southern Illinois University Press as a companion volume to the 11-volume set. Although we had a raw index to the corpus when we last communicated, it was far from the definitive finding list we wanted to make it. A great many persons were buried in indiscriminate heaps with others having the same name, while other items hardly ever spelled the same way twice, were scattered all over the index. The work of pinning down some 500,000 references has been similar to that of writing thousands of notes to learned journals. Half of the more than 50,000 items in the raw index turned out to be variants of others. There were endless "decisions and revisions." Should "Coffee-house" be hyphenated? What if the text presents two cast lists for the same performance? Should "Their Majesties" be treated as a name or a title? In an attempt to settle such questions we assembled a set of more than 150 rules. The project employed as many as 6 student editors at a time, 19 in all. They merit highest praise for tireless attention to detail, total acceptance of responsibility, dedication to accuracy, and determination to find the right answer. It is impossible to convey how much they have accomplished, but the printouts they have inspected and marked, if piled on top of each other, would reach an altitude of 30 feet.

The labors of Charles Beecher Hogan and George Winchester Stone Jr, compilers of parts four and five of the original volumes have been equally heroic. They have provided identifiers for plays, operas, oratorios, songs, specialty acts, pantomimes, burlettas, and masques, and for scene-painters, box-keepers, treasurers, renters, wardrobe-keepers, ambassadors, statesmen, kings, carpenters, chandlers, acrobats, rope-makers, printers, lawyers, coffee-house managers, and tavern-keepers. 89 of the 96 trades described in Campbell's London Tradesman are mentioned in the Index.

Work was supported by generous grants from The National Endowment for the Humanities (three times), The American Council of Learned Societies, The American Philosophical Society, The Andrew Mellon Foundation, The United States Steel Foundation, The Billy Rose Foundation, Lawrence University and generous gifts from Mrs John A. Logan, Charles Beecher Hogan, Miss Faith Bradford, Dr and Mrs J. Merrill Knapp, Jr, and a Friend of Lawrence University. It took seven years to produce this index by computer and about \$200,000. If Lawrence had charged for computer time, the figure might have been double. There can be little doubt that making the vast resources of The London Stage easily accessible is worth even this amount. It is a foundation on which scholars will build for years to come. But could it have been done faster and for less by conventional methods?

The answer is that without the computer the Index would probably never have been done at all; certainly not in 8 years. To compile it by hand, one would have had to write one card for each reference. Ultimately he would have had to sort 500,000 cards, a file about 100 yards long. If, using an alternative method, he had added references to master cards for

each item, he would find himself searching an average of 25,000 cards 500,000 times. Besides, computer methods have saved substantial printing costs. The computer has produced camera-ready copy without the help (or errors) of human typists or typesetters. Since typesetting costs about \$125 per page and this Index is 1000 pages long, the project has saved something like \$125,000. Further, the ease of making proof copies by computer results in greater accuracy in the final product. Five proof editions of the machine-readable text and five editions of the Index, each more accurate than the last, preceded the final product. In the task of sorting out different persons with the same name and merging identical items with different names, proof indexes made the relevant facts easy to find. Without such aids, the person who compiles by hand must depend almost entirely on what he remembers, certainly too little for so compendious a source. And so, if the Index could have been done without the computer it would probably have been less thorough and less accurate than the present one.

Finally, both the computer-readable text and the programming systems developed to serve it are available for future use:

1) LSIB: Lawrence University will maintain The London Stage Information Bank as a service to scholars in the wide variety of subjects covered by this comprehensive record. We can extract information about any theatre, title, performance, performer, name or title in commentary, or any combination of these, and rearrange the result by sorting so as to show trends in such things as theatre offerings or ticket prices, stage careers of actors, royal patronage, or role histories. About 80% of the casts in the London Stage volumes do not produce references in Index because the source simply refers the reader to a previous date on which the cast was the same, only noting any changes. Our programs fill in and revise the missing casts to complete the record for all performers. Furthermore, we have a virtual concordance to the corpus, enabling us to extract the context of any word, word-segment, or phrase in parenthetical remarks or commentary. Keeping in mind the limited means of research scholars, we have set up a minimal fee schedule for the information service that only partly covers the cost of providing it. The charge will be one cent for every London Stage page scanned and one-half cent for each line printed. A list of all the actresses who played Ophelia, for example, would cost \$80 for searching the 8,000-page corpus plus perhaps 50 cents to print out the 100-odd Ophelias. A list of the repertoires of these actresses would cost perhaps \$50 more. There will be no charge for sorting such lists to order. The computer version of the text is available only through agreement with the Southern Illinois University Press, which holds the copyright.

2) GWSJR1: Our system for extracting cast lists, known to the computer as GWSJR1, is available for export to scholars engaged in similar projects. This system is suited to the creation, search, and indexing of any regularly-structured reference work, be it bibliography, catalogue, or inventory. It can also make indexes to prose works. The system, comprising more than a year's programming

and seven years of testing and improving, is written in the PL/1 language and operates on a small IBM-360 computer. The cost of making it available is \$500 to an educational institution or \$900 to a business.

3) SITAR: This program product is, as its acronym declares, a System for Interactive Text-editing, Analysis, and Retrieval. With SITAR, insertion, deletion and replacement of text are accomplished instantly and visibly on passages displayed on the screen of a video computer terminal. A passage is retrieved from the source by simply stating key words that define it; up to 23 lines may be displayed at a time. When the screen is correct, the user presses a button and the new version replaces the old. SITAR can copy, format, and print a file, replace all instances of one word with another, and accumulate a list of all "hits" satisfying a search request. It has been used for such things as writing the same letter with variations for various people, maintaining and searching address lists, creating and keeping up to date the Lawrence course catalogue, writing books, and analysing literary texts, accomplishing such tasks with a set of short English command words which mean exactly what they do. SITAR "interacts" with its user, asking him for information needed to complete a task, forgiving his mistakes, and prompting sound procedure. The system comprises more than a year's programming and has been tested and improved over a four-year period of continual use. It is written in the BASIC language for a small DEC-PDP/11 computer. The cost of making it available is \$500 to an educational institution or \$900 to a business.

The computing industry estimates that it costs \$5 to write, "debug" and document one statement of a computer program. At this rate, both SITAR and GWSJR1 would cost \$20,000 to duplicate. These figures give some idea of the cost of "re-inventing the wheel." Therefore, I will be happy to consult with any scholar engaged in a similar project about the feasibility of using our software. And I stand ready to help research scholars take advantage of the vast resources of The London Stage Information Bank.

Sincerely yours,

Ben Ross Schneider Jr
Ben Ross Schneider Jr
Director