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Teaching Computers and the Humanities Courses: A Survey

Joseph Rudman

This is the fifth in a series of surveys of computer courses for humanists published by *Computers and the Humanities*.[1] These have been undertaken to provide information about past and existing courses to those who might be designing a course on the use of the computer for humanists. This information is intended to help avoid past mistakes and to build on past successes.

Although the form used in the present survey (see Appendix A) is almost identical to that used in the 1978 survey,[2] the method of reporting the results is quite different. With 346 courses reported to date (210 in U.S. — 136 non-U.S.), only limited treatment can be given in this paper: some overall statistics on the numbers of courses offered by deparments, the texts used, the types of equipment available, and the programming languages taught. More questionnaires continue to trickle in and the number of reported courses—including those mentioned in the literature[3], at conferences, or in the responses to the survey—should reach well over 400. To distribute this information, a clearinghouse is being established by the Association for Computers and the Humanities.

The present plan for this clearinghouse is that the entire database of survey information, along with other information on computer courses for humanists gathered from the literature, will be provided on a floppy disk along with a shareware database program. This will allow access to all of the desired information, cross-tabulated to individual requirements. As an alternative, the clearinghouse could also provide a printout of the desired information.

Anyone who has not returned one of these surveys can copy the one in this article (Appendix A) and return it along with any pertinent material.

The survey was mailed to well over 2,000 colleges and universities in the United States and to almost 500 colleges and universities around the world. In addition, the surveys were made available at the 1986 MLA convention in New York, the 1987 York College conference "Computing in Liberal Arts Education," the 1987 International Conference on Computers and the Humanities at the University of South Carolina, and at the 1987 Computers and Teaching in the Humanities conference at the University of Southampton in Great Britain.

The survey was addressed to the "Office of the President" with the request that it be forwarded to the appropriate departments. Each institution was allowed to define what it meant by the term humanities. The survey was intended to reach every professor teaching a computers and the humanities course as well as the greatest possible number of humanities departments which do not offer such a course. No attempt was made to poll a statistically valid sampling.

The total number of surveys returned to date is 686: 346 respondents report courses and 340 report none. Questionnaires were returned by 281 institutions in the United States (47 different states) and 104 institutions in eighteen other countries. Appendix D provides a tabular display of some of the information provided by the no course returns. Of note is the fact that five courses were reported discontinued, due to the departure or promotion of the professor, lack of student interest, or inadequate funding.

Eleven respondents said that they and their students use the computer rather than teach or take

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a computer course for humanists. This use was, however, mainly word processing. Forty-five courses are currently in the planning stage, and a further forty-six respondents either requested more information or stated that the possibility of offering such a course was being actively considered. This fact again demonstrates the need for a clearinghouse that can be constantly updated.

The 1978 survey[4] which listed each institution, department, course title, instructor, textbook, aims, and suggestions was eighteen pages long. The same categories of information, were they to be printed here, would require more than eighty pages. Some of the more lengthy material has therefore been omitted, but all the information will be disseminated either by the clearinghouse or in future articles.

The decision not to print the "Aim(s) of the Course" and the "Suggestions for Someone Planning a Similar Course" was difficult because of the inherent value of the information. Many respondents also sent extensive class handouts and course outlines. This information will also be made available.

Appendix B is a frequency list of departments that reported courses. I did not cross-reference this list. For example, a researcher looking for all of the courses taught by computer science departments, could miss the one listed under "Philosophy and Computer Science." Naturally, the clearinghouse database will solve this type of problem.

Appendix C is a listing and a frequency count of the reported textbooks. The books considered secondary or peripheral (e.g., an Austin novel used in stylistic analysis) have been omitted. The survey revealed a great variety of textbooks in use, though it is conceivable that the new books by Hockey, Ide, Oakman, and Tannenbaum[5] will supersede many of the current titles. It is also interesting to note the large number of courses in which handouts or "documentation" are used rather than specific texts.

Appendix E, a list of computers used in the reported courses, may be of limited value insofar as it reflects the choice of the institution or scientific disciplines rather than the professor teaching a humanities course. However, the list could give applications software developers an insight into which machines might be targeted.

Nancy Ide treats in some depth the problem of whether to teach a programming language (and if so which one) or simply concentrate on application programs. Elsewhere in this issue, Appendix F lists each programming language and its frequency of use in the reported courses. Application programs are taught only in 131 cases. It is perhaps safe to assume that in all courses where a programming language is taught application programs are also taught.

Conclusion

The Vassar Workshop, the Southampton Conference and its sequel to be held in 1988, this special issue of *CHum*, the 1988 Oberlin Conference, and the proliferation of courses now being offered—all attest to the burgeoning interest in computer courses for humanists. There is now rarely need to defend the value of a course to teach the use of the computer to humanists. Instead, more effort can be channeled toward researching some of the disputed and questionable areas: programming languages versus application programs, choice of programming languages, single courses or sequences of courses, content of courses, choice of textbooks, team-taught courses as opposed to ones offered by specific departments, the degree to which students should be familiar with hardware, the relative importance of mathematics and statistics, and so on. The information gathered by this survey is intended to fill a gap by providing relevant resources for anyone planning to institute or modify a computer and the humanities course. Contributions, corrections, and suggestions are welcomed.

FOOTNOTES

1. Edmund A. Bowles, "Towards a Computer Curriculum for the Humanities," *Computers and the Humanities*, 6, 1 (September 1971), 35-38.
Leila de Campo, "Computer Courses for the Humanist: A Survey," *Computers and the Humanities*, 7, 1 (September 1972), 57-62.
John R. Allen, "The Development of Computer Courses for Humanists," *Computers and the Humanities*, 8 (1974), 291-295.
Joseph Rudman, "Computer Courses for Humanists: A Survey," *Computers and the Humanities*, 12 (1978), 253-279.
2. See Rudman, fn. 1.
3. See Rudman, "Selected Bibliography for Computer Courses in the Humanities," in this issue.
4. Rudman, "Computer Courses for Humanists: A Survey." pp. 260-278.
5. Susan Hockey. *A Guide to Computer Applications in the Humanities*. Baltimore: Johns Hopkins University Press, 1980.
Susan Hockey. *SNOBOL Programming for the Humanities*. Oxford: Oxford University Press [Clarendon Press], 1986.
Nancy M. Ide. *Pascal for the Humanities*. Philadelphia: University of Pennsylvania Press, 1987.
Robert L. Oakman. *Computer Methods for Literary Research*. Revised Edition. Athens GA: University of Georgia Press, 1984.
Robert S. Tannenbaum. *Computing in the Humanities and Social Sciences*. To be published.

APPENDIX A

COMPUTER COURSES FOR HUMANISTS: A SURVEY

This survey is being conducted as part of the research for a study of the design of courses that deal with the use of the computer by humanists. The analysis of the survey is to be published by CHum. The following action by your office would be appreciated:

1. Send a photo copy of this questionnaire to each department head in the humanities.
2. Send a photo copy of this questionnaire to the head of Computer Science.

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If your department offers a computer course for humanists, please answer questions 1 thru 11. If not, please answer questions 11 and 12. I would appreciate receiving as much detailed information (notes, outlines, etc.) about any relevant course as possible. A "clearinghouse is being set up to disseminate this information. Please send this questionnaire and other pertinent information to:

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U.S.A.

THANK YOU.

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1. Title of Course_____
2. Department_____ 3. Instructor_____
4. Credit(Grad/Undergrad)_____ 5. Prerequisite(s)_____
6. Text(s)_____
7. Computer(s)_____
8. Language(s)_____
9. Aim(s) of course_____
   _____
   _____
   _____
10. Suggestions for someone planning a similar course
    _____
    _____
    _____
11. Do you know of such a course that might be missed by this survey
    a. Institution_____
    b. Instructor_____
12. If you do not now offer such a course, do you plan one in the future_____ or see such a course as having any value_____

COMMENTS_____
_____

APPENDIX B

Courses per Department

Department	U.S.A.	Non-U.S.A	Total
Anthropology	–	1	1
Archeology	–	3	3
Architecture	2	–	2
Art, Art History	6	–	6
Arts	–	6	6
Business	5	–	5
Child Welfare	–	1	1
Classical and Modern Languages	–	1	1
Classical and Romance Languages	1	–	1
Classics	1	1	2
Computer Science	46	12	58
Computer Science and Arts	–	2	2
Computer Science, Modern Languages, and European Studies	–	1	1
Core	2	–	2
Design	4	–	4
Domestic Science	–	1	1
Drama	1	–	1
Economics	–	1	1
Education	1	5	6
Electronics and Computer Science	–	1	1
English	44	21	65
English and Computer Science	2	–	2
English, Humanities, and Journalism	1	–	1
Faculty Development Program	1	–	1
Fine Arts	2	1	3
Folklore	–	1	1
Foreign Language	5	–	5
French	–	9	9
General Studies	1	–	1
Geography	–	2	2
German	–	1	1
Historical Social Science (Inst. of)	–	1	1
History	11	5	16
Honors Program	1	–	1
Humanities	6	2	8
Humanities and Social Sciences	1	–	1
Industrial Design	–	1	1
Interdisciplinary	2	2	4
Italian	–	1	1

Journalism	2	–	2
Journalism and Communication	1	–	1
Language and Philosophy	1	–	1
Langues et Linguistique	–	1	1
Latin	–	1	1
Law	–	3	3
Letters and Social Science	–	1	1
Lettres	–	1	1
Liberal Arts	1	–	1
Librarianship	–	1	1
Linguistics	1	2	3
Linguistics and Computing	–	3	3
Linguistics and International Studies	–	1	1
Linguistics and Mathematics	–	2	2
Linguistics and Phonetics	–	4	4
Linguistics and Speech Sciences	–	1	1
Literature	–	1	1
Literature and Home Economics	–	1	1
Literature, Law, and Economics	–	1	1
Management	1	–	1
Mathematics	12	–	12
Mathematics and Computer Science	5	4	9
Mathematics and Physics	–	1	1
Mathematics, Statistics, and Computer Science	–	1	1
Media Studies	1	–	1
Modern Arabic Studies	–	1	1
Modern and Classical Languages and Religion	1	–	1
Music	8	4	12
Music Composition and History	1	–	1
Philogie, (Inst. for German)	–	1	1
Philosophy	7	5	12
Philosophy, Humanities, and Computer Science	1	–	1
Philosophy and Computer Science	2	–	2
Philosophy and Mathematics	1	–	1
Plan for Alternative General Studies	1	–	1
Political Science	–	2	2
Politics	–	1	1
Psychology	4	1	5
Religion	1	2	3
Slavic Languages	–	1	1
Social Science	9	–	9
Social Studies and History	1	–	1
Sociology	–	5	5
Sociology, Anthropology, and Computer Science	1	–	1
Speech Communications	1	–	1

APPENDIX C

Reported Textbooks

US/ Non US	Total	Title Author
3/4	7*	A Guide to Computer Applications in the Humanities Hockey
1/1	2	A SNOBOL4 Primer Griswold and Griswold
-/1	1	An Introduction to Computer Assisted Language Teaching Kenning and Kenning
1/-	1	An Introduction to Information Processing
1/-	1	Applied Structured BASIC
-/1	1	Approaching Macintosh: A Guide to Learning
1/-	1	Artificial Intelligence Boden
1/-	1	BASIC and Personal Computers Owyer and Critchfield
-/1	1	BASIC Programming in BBC MICRO Cryer and Cryer
1/-	1	Cognitive Computer Schank
1/-	1	Computer Ethics Johnson
2/-	2	Computer Fundamentals for an Information Age Shelly and Cashman
-/1	1	Computer Law Topper
4/1	5	Computer Methods for Literary Research Oakman
1/-	1	Computer Music Dodge and Jerse
2/-	2	Computer Power and Human Reason Weizenbaum
-/1	1	Computer Programming in BASIC Bishop
1/-	1	Computer Programs for Literary Analysis Abercrombie
1/-	1	Computers and Applications Slotnick, et al.
1/-	1	Computers and Application Software Price
3/-	3	Computers and Data Processing Caprone and Williams
-/1	1	Computers and Data Processing Deikel and Deikel
2/-	2	Computers and Data Processing Today Mandell
2/-	2	Computers and Information Processing Oleary and Williams
1/-	1	Computers and Social Change
1/-	1	Computers and the Information Society
1/-	1	Computers and User Software
1/-	1	Computers in Contemporary Society Siff and Black
-/2	2	Computers in Linguistics Butler
-/1	1	Computers in Society Sanders
-/1	1	Computers in Society Skann and Skann
1/-	1	Computers in the Classroom Radin et al.
2/-	2	Computers in the Humanities and Social Sciences Tannenbaum
-/1	1	Computers Today
1/-	1	Computers Today Spencer
1/-	1	Creative Computer Imaging Truckenbrod

* Susan Hockey's two books are listed with one count because in many instances the respondents simply wrote, "Hockey."

-/1	1	Data Processing in Archaeology Richards and Ryan
1/-	1	Designing User Interfaces Schneiderman
1/-	1	Ethics and Social Issues in the Use of the Computer Snapper and Johnson
1/-	1	Essential LISP Anderson et al.
1/-	1	Essentials of Structured Basic Ageloff
1/-	1	Four Software Tools Duffy
1/-	1	IBM PC's Goldstein and Goldstein
-/1	1	Improve Your Writing with Word Processing Noble and Noble
1/-	1	Instructional Software Walker and Hess
1/-	1	Introduction to Computers Long and Long
1/-	1	Introduction to Computers and Information Systems Athey and Zinud
-/1	1	Introduction to Natural Language Processing Harris
-/1	1	Introduction to Programming in BASIC Bishop
-/1	1	Language and the Micro-Computer Last
-/1	1	Language as a Cognitive Process Winograd
-/1	1	Language Manual/Target Text Leviathan
-/1	1	Learning and Teaching with Computers O'shea and Self
-/1	1	Learning LOGO on the APPLE II McDougall
-/1	1	Logical Thought Andrews
-/1	1	Mathematics and Computers in Archaeology Doran and Hodson
1/-	1	Microcomputer Applications in Business Database Systems
1/-	1	Microcomputer Use Alberts-Hallam et al.
-/1	1	MICROSOFT Macinations
-/1	1	Mindstorms Papert
1/-	1	Mystical Machine Savage
-/2	2	Oh! PASCAL
-/3	3	PASCAL Findly and Watt
2/1	3	PASCAL for the Humanist Ide
1/1	2	Programming Concepts and Problem Solving Linz
1/-	1	Programming in PROLOG Clacksin and Mellish
-/2	2	Programming Language/One Bates and Douglass
1/-	1	Radlow
-/-	-*	SNOBOL Programming for the Humanities Hockey
1/-	1	Statistical Analysis by Computer Newton and Nelson
-/1	1	Statistics in Linguistics Butler
-/1	1	Structured COBOL
-/1	1	Structured FORTRAN Ellis
-/1	1	SYMLOG: A Computerized Approach to Symbolic Logic Portoraro and Portoraro

−/1	1	Teaching, Learning and Computers NCCS
1/−	1	The Computation of Style Kenny
1/−	1	The Computer: A Tool for the Teacher
−/1	1	The Computer Book: Programming and Language Skills for Students of ESL
2/−	2	The Computer in Composition Instruction Wresch
2/−	2	The Historian and the Computer Shorter
1/−	1	The Information Technology Revolution Forester
−/1	1	The Language of Computer Music Huron
4/−	4	The Mind Tool Graham
5/−	5	Understanding Computers Hopper and Mandell
−/1	1	Understanding Computers and Cognition Winograd and Flores
1/−	1	Understanding Computers and Data Processing Parker
2/−	2	Using BASIC Hennefeld
2/−	2	Using Computers Today Sullivan et al.
1/−	1	Using Productivity Software
1/−	1	Using the Microcomputer in the Classroom Camus and Bitter
1/−	1	Writing Better Computer User Documentation Brockmann
11/10	21	DOCUMENTATION
16/12	28	HANDOUTS

APPENDIX D

Returns Not Reporting a Class

Catagory	U.S.	Non U.S.	Total
Number of Returned Surveys	287	53	340
Number of Institutions	188	35	223
Number of States/Countries	46	13	——
Had a Course but Discontinued	5	−	5
Use the Computer do not Teach it	10	1	11
Request More Information	23	2	25
Plan a Course — YES	30	15	45
— POSSIBLE	19	2	21
Such a Course has value — YES	119	24	143
— ?	27	4	31

APPENDIX E

Computers

Computer	U.S.	Non U.S.	Total
Apple (II, IIE)	36	2	38
Macintosh (+)	28	6	34
AMIGA	6	2	8
DEC	3	4	7
DEC Rainbow	9	–	9
VAX	22	21	43
IBM	7	5	12
IBM PC (XT, AT)	62	19	81
IBM Mainframe	13	16	29
Amdahl	–	6	6
AT&T	5	1	6
BBC Micro	–	12	12
NEC	–	5	5
Olivetti	–	7	7
Prime	3	2	5
Radio Shack	3	1	4
SUN	3	1	4
Zenith	7	1	8
OTHERS (Types)	19	12	31

APPENDIX F

Programming Languages Reported

Language	U.S.	Non U.S.	Total
Assembly	1	–	1
AWK	2	–	2
BASIC	50	24	74
C	3	1	4
CMU Tutor	1	–	1
COBOL	–	1	1
FORTRAN	–	8	8
IMP	–	1	1
LISP	10	3	13
LOGO	5	4	9
PASCAL	21	9	30
PL-1	2	4	6
PROLOG	7	8	15
SNOBOL (SPITBOL)	5	5	10
APPLICATIONS ONLY	90	41	131