



**THE
UNIVERSITY
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**A BIBLIOGRAPHY TO HUMAN-COMPUTER INTERACTION:
CONCEPTS, METHODS AND PROBLEMS**

by

David R. Hill

Research Report No. 84/168/26 October 1984

**DEPARTMENT OF
COMPUTER SCIENCE**

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A Bibliography to Human-Computer Interactions: concepts, methods and problems

Note:

This is a preliminary report -- an expanded version is in preparation.

A list of keywords for access, is on pages 10 and 11. They appear between '%' characters in for each entry.

A bibliography to Human-Computer Interaction: concepts, methods and problems

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- ARBLASTER, A. (1982) Human factors in the design and use of computing languages. *International Journal of Man-Machine Studies* 17 (2), 211-224, August %paper, language aspects, program structure & psychological complexity, programming methodology%
- BADDELEY, S. (1982) The Interface between computers and people. *IEE International Conference on Man-Machine Systems*, July 6-9. 150-156, London: Institute of Electrical Engineers Conference Publication number 212. %paper, general principles%
- BADRE, A. & SHNEIDERMAN, B. (1982) *Directions In Human-Computer Interaction*. 225 pp Norwood, New Jersey: Ablex Publishing Corp. %book%
- BARNARD, P.J. ., HAMMOND, N.V. ., MORTON, J. & LONG, J.B. (1981) Consistency and compatibility in human-computer dialogue. *International Journal of Man-Machine Studies* 16 (1), 87-134, July. %paper, dialog design principles%
- BARR, A. & FEIGENBAUM, E.A. (1981) *The Handbook of Artificial Intelligence*. In 3 volumes: 409pp, 428pp & 640pp, Stanford, CA: Heuristics Press (William Kaufmann, Los Altos). %book, AI%.
- BAS, L.J. & BUNKER, R.E. (1982) A generalised user interface for applications programs. *Communications of the ACM* 24 (12). 796-800. December. %paper, applications, systems%
- BENBASAT, I., DEXTER, A.S. & MASULIS, P.S. (1981) An experimental study of the human/computer Interface. *Communications of the ACM* 24 (11), 762-762, November. %paper, methodology, command abbreviation, experiments%
- BLASER, A. & HACKEL, J. (1977) *Interactive Systems*. 380 pp. *Lecture Notes In Computer Science* Vol. 49. New York; Springer-Verlag. %book, conference%
- BOLINGER, D. (ed) (1972) *Intonation*. 444 pp. Harmondsworth, UK: Penguin Books. %book, speech i/o, underlying theory, intonation%
- BOOTH, T.L., AMMAR, R. & LENK, A. (1981) An Instrumentation system to measure user performance in interactive systems. *Journal of Systems Software* 2 (2). 139-146, June. %paper, performance, experiment%
- BROOKS, R. (1980) Studying programmer behaviour. *Communications of the ACM* 23 (4), 207-213. April. %paper, programmer behaviour, methodology, psychology of programming%
- BROWN, J.W. (1982) Controlling the complexity of menu networks. *Communications of the ACM* 25 (7), 412-418. July. %paper, menus, complexity, principles%
- BUXTON, W. (1983) Lexical and pragmatic considerations of input structures. *Computer Graphics* 17 (1), 31-97, January. %paper, graphical i/o, taxonomy, general principles. communication%
- BYLANDER, E.G. (1979) *Electronic Displays*. 175pp. New York: McGraw-Hill %book, graphical i/o, hardware, perceptual aspects%
- CAIO, F., GUIDA, G. & SOMALVICO, M. (1982) Problem solving as a basis for program synthesis: design and experimentation of the BIS system. *International Journal of Man-Machine Studies* 17 (2), 173-188, August. %paper, ai, problem solving, modelling, program specification%
- CAKIR, A. ., HART, D.J. & STEWART, T.F.M. (1980) *Visual Display Terminals*. New York: John Wiley (Wiley Interscience), 253 pp. %VDTs/VDUs%
- CARD, S.K., MORAN, T.P. & NEWELL, A. (1976) The manuscript editing task: a routine cognitive skill. Xerox PARC Report SSL-76-8, 77pp. Palo Alto, CA: Xerox. %report, information theory, model, task analysis. editing, knowing the user%
- CARD, S.K., MORAN, T.P. & NEWELL, A. (1979) The keystroke-level model for user performance time with interactive systems. Xerox PARC Report SSL-79-1, 50pp. Palo Alto, CA: Xerox. %report, modelling, performance, experiment%

- CARD, S.K., MORAN, T.P. & NEWELL, A. (1983) *The Psychology of Human-computer interaction*. Hillsdale, NJ: Lawrence Erlbaum. %book, psychological principles, modelling, format specification, applications, experiment, performance (& limitations), modelling, cognition%
- CARROLL, J.M. (1983) Presentation and form in user-interface architecture. *Byte* 8 (12), 113-122, December. %paper, popular, dialog structure, learning, training, classes of users, metaphors, dialog design guidelines%
- CARROLL, J.M. & THOMAS, J.C. (1982) Metaphor and cognitive representation of computing systems. *IEEE Transactions on Systems, Man & Cybernetics SMC-12* (2), 107-116, March/April. %paper, psychological principles, cognition, metaphors%
- CATER, J.P. (1983) *Electronically Speaking*. 230p., Indianapolis: Howard W. Sams. %book, popular, speech i/o, applications, hardware%
- CHAUDHARY, B.D. & SAHASRABUDDHE, H.V. (1983) Two dimensions of program complexity. *International Journal of Man-Machine Studies* 18 (5), 605-511, May. %paper, program comprehension, program structure & complexity, cognitive aspects%
- CHERRY, C. (1978) *On Human Communication*. 374pp, 3rd. edition, Cambridge, MA: MIT Press. %book, general principles, communication, language aspects, cognitive aspects, speech analysis%
- CLANTON, C. (1983) The future of metaphor In man-computer systems. *Byte* 8 (2), 263-279, December. %paper, popular, metaphors, layering, user models (of system), learnability, general principles, knowing the user%.
- CLARE, J.N. & SINCLAIR, M.A (1979) *Search and the Human Observer*. 195 pp. Erlbaum Hillsdale, NJ: Lawrence Erlbaum. %book, psychological principles, conference, search strategies%
- COHEN, A. & NOOTEBOOM, S.O. (1975) *Structure and Process In Speech Perception*. 353pp. New York: Springer-Verlag. %book, speech i/o, conference, perception, underlying theory%
- COOMBS, M.J. & ALTY, J.L (eds) (1981) *Computing Skills and the User Interface*. 499 pp. London: Academic Press. %book, general principles%
- COTON, J.W. & KLATZKY, A.L (1978) *Semantic Factors In Cognition*. 256pp. Hillsdale, NJ: Lawrence Erlbaum. %book, cognitive aspects, learning, models, visual, information processing, semantic, memory%
- COBALLIS, M.C. & BEALE, I.L (1976) *The Psychology of Left and Right*. 240pp. Hillsdale, NJ: Lawrence Erlbaum. %book, psychological principles, underlying theory, left/right handedness%
- COREN, S. & GIRGUS, J.S. (1978) *Seeing Is Deceiving*. 272pp, Hillsdale, NJ: Lawrence Erlbaum. %book, psychological principles, illusions, taxonomy, perception, visual, neural mechanisms%
- CUFF, R.N. (1980) On casual users. *International Journal of Man-Machine Studies*, 12 (2), 163-188, February. %paper, user classes, user profiles, database access, dialog design principles%
- CURTIS, W. (1981) *Human Factors In Software Development*. 641 pp New York: IEEE (Catalog Number EHO 185-9) %collection, problem solving in programming, language characteristics, program specification, debugging & faults, Individual differences, software tools, programmer behaviour% :
- DARLINGTON, J., DZIDA, W. & HERDA, S. (1983) The role of excursions in interactive systems. *International Journal of Man-Machine Studies* 18 (2), 101-112, February. %paper, dialog design principles%
- DAVIS, A. (1983) User or computer error? Observations on a statistics package. *International Journal of Man-Machine Studies* 19 (4), 359-376, October. %paper, experiment, general principles, user classes, errors%
- DAVIS, R (1983) Task analysis and user errors: a methodology for assessing interactions. *International Journal of Man-Machine Studies*, 19 (6), 561-574, December. %paper, experiment, dialog specification, evaluation, methodology%
- DEAN, M. (1983) Simplify, simplify, simplify. *Byte* 8 (12), December. %paper, popular, dialog styles, user classes, general principles%

- DICKSON, D.R. & MAUE-DICKSON, W. (1982) Anatomical and physiological bases of speech. 338pp. Boston: Little, Brown and Co.
- DUNSMORE, H.E. & GANNON, J.D. (1979) Data referencing: an empirical investigation. *Computer* 12 (12), 50-59, December. %paper, psychology of programming, experiment%
- EASON, K. & DAMODARAN, L. (1979) Design procedures for user Involvement and user support. Infotech State-of-the-Art Report. 370pp. Maidenhead: Infotech International. %paper, conference, design procedures, knowing the user, systems%
- EDMONDS, E.A. (1982) The man-computer Interface: a note on concepts and design. *International Journal of Man-Machine Studies* 16 (3), April. %paper, general principles%
- EDWARDS, S. (1983) Why Is software so hard to use. *Byte* 8 (12), 127-138, December. %paper, popular, ease of use, user models (of system), general principles%
- EMBLEY, D.W. & NAGY, G. (1981) Behavioural aspects of text editors. *Computing Surveys* 13 (1), 33-70, March. %paper, survey, editing, experiments%
- EHRENREICH, S. L (1981) Query languages: design recommendations derived from the human factors literature. *Human Factors* 23 (6), 709-725. %paper, database access, language aspects%
- FLANAGAN, J.L. <1972> Speech analysis, Synthesis and Perception. 2nd. edition. 444pp. New York: Springer-Verlag. %book, speech i/o, speech analysis, underlying theory, perception%
- FITTS, P.M. & POSNER, M.I. (1973) Human Performance. 162 pp. London: Prentice-Hall International. %book, psychological principles%
- FOLEY, J. & WALLACE, V. (1974) The art of natural graphic man-machine conversation. *Proceedings of the IEEE* 62 (4), 462-471, April. %paper, dialog design principles, graphical i/o%
- FOLEY, J.D. & VAN DAM, A. (1982) Fundamentals of Interactive Computer Graphics. 664pp. Reading, MA: Addison-Wesley. %book, graphical i/o, general principles, applications, colour, hardware%
- FORD, W.R. (1981) Natural Language Processing by Computer -- a New Approach. Ph.D. Thesis, 87pp. Baltimore: Johns Hopkins University. %thesis, natural language, innovative interfaces%
- GAINES, B.R & SHAW, M.L.G. (1983) Dialog engineering. in *Designing for Human-Computer Communication* (eds. M. Sime and M. J. Coombs), Academic Press, London) pp. 23-53. %book, general principles, dialog design principles%
- GAINES, B.A. & FACEY, P.V. (1977) BASYS - a language for processing interaction. *Proceedings of Conference on Computer Systems and Technology (IERE 36)*, University of Sussex, U.K. 1977 251-262. %conf paper, language characteristics%
- GALITZ, W.O. (1981) Handbook of Screen Format Design. 212pp. Wellesley, Massachusetts: QED Information Sciences Inc. %book, screen layout%
- GESCHEIDER, G.G. (1976) Psychophysics: Method and Theory. 177pp. Hillsdale, NJ: Lawrence Erlbaum (John Wiley). %book, underlying theory, experiment, psychological theory, evaluation, methodology%
- GILB, T. & WEINBERG, G.M. (1977) Humanized Input: techniques for reliable keyed Input. 263pp. Cambridge, MA: Winthrop. %book, keyed input, general principles, dialog design guidelines, dialog specification%
- GILOI, W.K. (1978) Interactive Computer Graphics. 354pp, Englewood Cliffs. NJ: Prentice-Hall. %book, graphical i/o, hardware%
- GOLEMAN, D. (1983) The electronic Rorschach. *Psychology Today* XX, 38-43, February, %paper, popular%
- GOOS, G. & HARTMANIS, J. (eds) (1977) Interactive Systems. 380 pp Berlin: Springer-Verlag. %collection, conference, systems, management, applications%
- GRANDJEAN, E. (1976) Sitting Posture. 253pp. London: Taylor & Francis.

- GRANDJEAN, E. (1973) *Ergonomics of the Home*. 344pp. London: Taylor & Francis, %book, general principles, workplace design, anthropometry, disabled%
- GRANDJEAN, E. & VIGLIANI, E. (eds) (1980) *Ergonomic Aspects of Visual Display Terminals*. 300pp. London: Taylor & Francis, %book, VDTs/VDUs, workplace design, personnel%
- GREEN, M. (1983) A catalog of graphical Interaction techniques. *Computer Graphics* 17 (1), 46-52, January. %paper, graphical, i/o, formal specification, dialog tools, taxonomy%
- GUEST, S.P. (1982) The use of software tools for dialogue design. *International Journal of Man-Machine Studies* 18 (3), 263-286, April. %paper, dialog tools, software tools%
- HANSEN, W.J. (1971) User engineering principles for interactive systems. Fall Joint Computer Conference, AFIPS Conference Proceedings 39, 523-532, New York: American Federation for Information Processing. %paper, dialog design principles, real system%
- HARRIS, L.R. (1977) User oriented data base query with the ROBOT natural language query system. *International Journal of Man-Machine Studies* 9 (6), 697-713, November. %paper, natural language, database access, real system%
- HARRIS, L.R. (1979) Man/machine communication In natural language. Infotech State-of-the-Art Report on Man-Computer Communication Vol. 2, 370pp, Maidenhead: Infotech International. %paper, natural language, database access%
- HAYES, P.J. & REDDY, O.J. (1983) Steps towards graceful Interaction In spoken and written man-machine communication. *International Journal of Man-Machine Studies* 19 (3), 231-284, September. %paper, general principles%
- HAYES, P.J. & SZEKELEY, P.A. (1983) Graceful Interaction through the COUSIN command Interface. *International Journal of Man-Machine Studies* 19 (3), 285-306, September. %paper, real system%
- HOLLNAGEL, E. & WOODS, D.D. (1983) Cognitive Systems Engineering: new wine In new bottles. *International Journal of Man-Machine Studies* 19 (1), January. %paper, cognitive aspects, dialog specification, user models (of system), models of users, task analysis%
- HUGGINS, W.H. & ENTWISTLE, D.R. (1974) *Iconic Communication*. 171 pp Baltimore: Johns Hopkins U. Press. %book, psychological principles, icons%,
- HUNT, A.W.G. (1975) *The reproduction of colour In photography, printing and television*. 614pp, 3rd. edition. New York: John Wiley. %book, reference, colour%
- JACOB, R.J.K. (1983) Using formal specifications in the design of a human-computer Interface. *Communications of the ACM* 26 (4), 259-264, April. %paper, dialog specification%
- KAMRAN, A. & FELDMAN, M.B. (1983) Graphics programming independent of interaction techniques and styles. *Computer Graphics* 17 (1), 58-66, January. % paper, graphics i/o, dialog design principles, language aspects, dialog tools, dialog styles, device independence%
- KANTOWITZ, B.H. (ed) (1974) *Human Information processing*. 365pp. Hillsdale, NJ: Lawrence Erlbaum. %book, psychological principles, underlying theory, man as information processor, models, cognitive aspects%
- KAY, A. (1979) Ideas for novice programming in a personal computing system. State-of-the-Art Conference on User-Friendly Systems, London, November. Infotech International. %paper, conference, innovative Interfaces, user classes%
- KEELE, S.W. (1973) *Attention and Human Performance*. 184pp, Pacific Palisades, CA: Goodyear. %book, psychological fundamentals, man as information processor, memory, information theory, attention%
- KENDIG, F. (1983) A conversation with Roger Schank. *Psychology Today* 17 (4), 28-36, April. %paper, popular, natural language, cognitive aspects, psychological principles, memory, expert systems%
- KERNIGHAN, B.W. & PLAUGER, P.J. (1974) *Elements of Programming Style*. 147pp, New York: McGraw-Hill. %book, program structure, documentation%

- KIGER, J.I. (1984) The depth/breadth trade-off in the design of menu-driven user Interfaces. *International Journal of Man-Machine Studies* 20 (2), 202-214, February. %paper, menus, dialog design principles%
- KLATZKY, R.L. (1975) *Human Memory: structures and processes*. 276pp. San Francisco: W.H. Freeman. %book, psychological principles, underlying theory, memory%
- KNUTH, D.E (1979) *TEX and METAFONT: new directions in typesetting*. 305pp. Bedford, MA: Digital Press. %book, type fonts, documentation, document preparation, typography%
- LANDEAU, J. (1983) How is a computer like an onion? *Byte* 8 (12), 250-257. December. %paper, popular, dialog design procedures, documentation, real system, knowing the user%
- LANDY, F.J. & TRUMBO, D.A (1976) *Psychology of work behaviour*. 582pp. Homewood, IL.; The Dorsey Press. %book, personnel issues, leadership, motivation, job satisfaction, performance (& limitations), general, principles%
- LEDGARD, H., WHITESIDE, J.A., SINGER, A. & SEYMOUR, W. (1980) The natural language of interactive systems. *Communications of the ACM* 23 (10), 556-569, October. %paper, general principles, language aspects, commands, comparison, experiment, natural language%
- LEDGARD, H., SINGER, A. & WHITESIDE, J. (1981) *Directions in Human Factors for Interactive Systems*. 190 pp. Berlin: Springer-Verlag, %book, methodology, real system, experiment, formal specification, experimental design, dialog design principles, general principles%
- LEGGE, D. (ed) (1970) *Skills*. 378pp. Harmondsworth, UK: Penguin Books, %book, skill, psychological principles, underlying theory%
- LEHISTE, I. (1970) *Suprasegmentals*. 194pp. Cambridge, MA: MIT Press. %book, speech i/o, underlying theory, rhythm intonation%
- LEMMONS, P. (1983) Hard choices for software houses. *Byte* 8 (4), 242-256, April. %paper, popular, rationale%
- LEMOS, A.S. (1983) On the readability of COBOL manuals. *International Journal of Man-Machine Studies*, 19 (4), 377-390, October. %paper, readability, experiment, comparison, methodology%
- MACKWORTH, J.F. (1970) *Vigilance and Attention*. 189pp. Harmondsworth, UK: Penguin Books, %book, psychological principles, underlying theory, detection theory, attention, vigilance%
- LUKEY, F.J. (1980) Understanding and debugging programs. *International Journal of Man-Machine Studies* 12 (2), 189-202, February. %paper, debugging, program comprehension, cognitive aspects%
- MACNEILAGE, P.F. (1983) *The Production of Speech*. 302pp. New York: Springer-Verlag. %book, speech i/o, underlying theory%
- MAGUIRE, M. (1982) An evaluation of published recommendations on the design of man-computer dialogues. *International Journal of Man-Machine Studies* 18 (3), 237-262, April. %paper, critique, dialog design principles, evaluation%
- MALHOTRA, A. THOMAS, J.C., CARROLL, J.M. & MILLER, L.A. (1980) Cognitive processes in design. *International Journal of Man-Machine Studies* 12 (2), 119-140. February. %paper, experiment, problem solving, modelling, protocol analysis, software design, procedures%
- MARTIN, J.T. (1973) *Design of Man-Computer Dialogues*. 559pp. Englewood Cliffs: Prentice-Hall. %book, general principles, applications, psychological principles, user classes, systems, dialog style, graphical i/o%
- MAYER, R.E. (1981) The psychology of how novices learn computer languages. *Computing Surveys* 13 (1), 121-141, March. %paper, survey, psychology of programming, user models (of system)%
- McCORMICK, E.J. (1976) *Human Factors in Engineering and Design*. 491pp. New York: McGraw-Hill. %book, general principles, display of information, auditory i/o, tactile i/o, workplace design, control%
- METZGER, P.W. (1973) *Managing a Programming Project*. 201pp. Englewood Cliffs, NJ: Prentice-Hall. %book, management, general design procedures, maintenance, software tools%

- MILLER, G.A. (1951) *Language and Communication*, 298pp. New York: McGraw-Hill. %book, natural language, communication, underlying theory%
- MILLER, LA. & THOMAS, J.C. (1977) Behavioural Issues in the use of interactive systems. *International Journal of Man-Machine Studies* 9 (4), 509-536, July. %paper, survey, general principles%
- MILLS, M.I. (no date) *A study of the human response to pictorial representation on Telidon*. Telidon Behavioural Research 3, 150pp, Ottawa: Dept. of Communications, Govt. of Canada. %report, Telidon, psychological principles, picture comprehension, displaying information, cognitive aspects, animation, problem solving%
- MOHER, T. & SCHNEIDER G.M, (1982) Research in software engineering. *International Journal of Man-Machine Studies* 16 (1), 65-88, January. %paper, methodology, experiment, language aspects, psychology of programming, bibliography%
- MORAN, T.P. (1981) An applied psychology of the user. *Computing Surveys* 13 (1), 1-11, March. %paper, survey, psychological principles, knowing the user, general principles, systems%
- MORAN, T.P. (1981) The command language grammar: a representation for the user interface of interactive computer systems. *International Journal of Man-Machine Studies* 15 (1), 3-50, July, %paper, dialog specification%
- MORAY, N. (1969) *Listening and Attention*, 107pp. Harmondsworth, UK: Penguin Books. %book, psychological principles, underlying theory, attention, perception, communication%
- MOZEICO, H. (1982) A human computer interface to accomodate user learning stages. *Communications of the ACM* 25 (2), 100-104, February. %paper, learning, adaptive%
- MYERS, W. (1980) Computer graphics: the human Interface. *Computer* 13 (6), 45-54, June. %paper, graphical i/o, general principles, learning, user models (of system), language aspects%
- NEWMAN, W.M. & SPROULL, R.F. (1979) *Principles of Interactive Computer Graphics*. 541 pp. 2nd. edition, New York: McGraw-Hill. %book, graphical i/o, dialog design principles, displaying Information%
- NICHOLS, J.A. & SCHNEIDER, M. (chair-people) (1982) *Human Factors in Computer Systems*. (Proceedings of Gaithersburg Conference, held at the National Bureau of Standards March 15-17, a veritable goldmine of papers) 399 pp New York: Association for Computing Machinery %collection, conference, command naming, displaying information, cognitive aspects, social factors, methodology, dialog design tools, documentation, editing, evaluation, communication & protocols, psychology of programming, dialog specification, design guidelines, innovative interfaces, cognitive models%
- NOLL A.M. (1971) *Man-Machine Tactile Communication*. Ph.D. Thesis, 89pp. New York: Brooklyn Polytechnic. %thesis, touch, graphical i/o, hardware%
- OBERQUELLE, H., KUPKA, I. & MAASS, S. (1983) A view of human-machine communication and co-operation. *International Journal of Man-Machine Studies* 19 (4), 309-334, October. %paper, general principles, formal specification, communication, user classes%
- OLSON, D.R. (1983) Automatic generation of interactive systems. *Computer Graphics* 17 (1), 53-57, January. %paper, graphical i/o, dialog tools, dialog specification, language aspects%
- ORR, W.D. (ed) (1968) *Conversational Computers*. 227pp. New York: John Wiley, %book, general principles, early collection, problem solving, systems, applications, graphical i/o, social aspects%
- PARKINSON, A.C. (1980) *An Efficient Computational Approach to the Comprehension of Purposeful English Dialogue*. Ph.D. Thesis, 147pp. Stanford, CA: Stanford University. %thesis, natural language, dialog, conversation, survey%
- PAXTON, A.L. & TURNER, E.J. (1983) The application of human factors to the needs of the novice computer user. *International Journal of Man-Machine Studies* 19 (2), 137-156, February. %paper, general principles, user classes, software accessibility, social aspects%
- POOLE, H.H. (1966) *Fundamentals of Display Systems*. 403pp. Washington, DC: Spartan. %book, hardware, perceptual aspects, vision%

- POLYA, G. (1945) How to Solve It. 253pp. Princeton: Princeton U, Press (Doubleday 'Anchor' books). %book, problem solving%
- POPE, A., KATES, G. & FINEBERG, D. (1983) Making life easier for professional and novice programmers. Byte 8 (12), 155-160, December. %paper, popular, innovative interfaces, applications, animation, program representation%
- REISSNER, P. (1981) Human factors studies of database query languages. Computing Surveys 13 (1), 13-31, March. %paper, database access, language aspects, experiment, general principles, survey%
- ROBERTS, T.L (1979) Evaluation of computer text editors. Xerox Technical Report SSL-79-9, Palo Alto, CA: Xerox PARC. %report, editing, evaluation, user performance, learning, systems%
- ROSENTHAL, D.S.H. (1983) Managing graphical resources. Computer Graphics 17 (1), 38-45, January. %paper, graphical i/o, specification%
- ROUSE, W.B. (1980) Systems Engineering Models of Human-Machine Interaction. 152pp. New York: North Holland, %book, performance (& limitations), models, modelling, underlying theory, human behaviour, taxonomy%
- ROUSE, W.B. (1981) Human-computer interaction in the control of dynamic systems. Computing Surveys 13 (1), 71-100, March. %paper, survey, task allocation, control, models of users, systems%
- SACKMAN, H.S. (1970) Man-Computer Problem Solving. 272pp. Princeton: Auerbach. %book, programmer behaviour, user classes, experiment, problem solving, individual differences, social factors%
- SEIL, R.G. & SHIPLEY, P. (1979) Satisfaction In Work Design. 220pp. London: Taylor & Francis, %book, job satisfaction, task analysis%
- SHACKEL, B. (ed) (1979) Man/Computer Communication Vols. 1 & 2. 348 pp. and 370pp. Maidenhead: Infotech International. %collection, conference, surveys, general principles, displaying information, cognitive aspects, speech input, speech output, workplace design, documentation, VDTs/VDUs, dialog design, natural language, language aspects, dialog styles, social aspects, user classes, knowing the user%
- SHACKEL, B. (ed) (1980) User-Friendly Systems. 172pp. Maidenhead, UK: Infotech International. %collection, conference, usability, knowing the user, psychological principles, visual communication, natural language, innovative interfaces, dialog design principles, critique%
- SHACKEL, B. (ed) (1981) Man-Computer Interaction: Human Factors Aspects of Computers and People. 560 pp Rockville, Maryland: Sijthoff & Noordhoff. %collection, conference, communication, experiment hardware, language aspects, models of users, user classes, evaluation%
- SHEIL, B.A. (1981) The psychological study of programming. Computing Surveys 13 (1), 101-120, March. %paper, survey, psychology of programming, program structure & psychological complexity, programmer behaviour%
- SHEPPARD, S.B., CURTIS, B., MILLMAN, P. & LOVE, T. (1979) Modern coding practices and programmer performance. Computer 12 (12), 41-49, December. %paper, programmer performance, program comprehension, structured programming, debugging, Individual differences, experiments%
- SHERIDAN, T.B. & FERRELL W.R. (1974) Man-Machine Systems: Information, Control and Decision Models of Human Performance. 452pp. Cambridge, MA: MIT Press. %book, decision models, control, man as Information processor, signal detection%
- SHERR, S. (1979) Electronic Displays. 636pp. New York: John Wiley, %book, hardware%
- SHNEIDERMAN, B. (1979) Human factors experiments In designing Interactive systems. Computer 12 (12), 9-19, December. %paper, general principles, attitudes, learning, control, response time, closure, memory, Individual differences, knowing the user, error handling%
- SHNEIDERMAN, B. (1980) Software Psychology. 320 pp Cambridge, Massachusetts: Winthrop. %book, experiments, experimental design, methodology, psychological principles, psychology of programming, programming style, communication within teams, evaluation, database access, natural language, general principles, design procedures%

- SHNEIDERMAN, B. (1983) Direct manipulation: a step beyond programming languages. *Computer* 16 (8), 57-69, August. %paper, innovative interfaces, general principles, feedback, visual communication, direct manipulation (of entities)%
- SHURTLEFF, D.A. (1980) *How to Make Displays Legible*, 157pp. La Mirada, CA: Human Interface Design. %book, displaying information, experiment, characters, hardware, comparison%
- SINGLETON, W.T. (1974) *Man-Machine Systems*. 178pp. Harmondsworth, UK: Penguin Books. %book, general principles, personnel, management, training%
- SINGER, A.J. (1979) *Formal Methods and Human Factors In the Design of Interactive Languages*. Ph.D. Thesis, 186pp. Amherst, MA: University of Massachusetts. %thesis, dialog design principles, dialog specification, knowing the user, experimental methodology, editing%
- SMITH, E.E. & MEDIN, D.L. (1981) *Categories and Concepts*. 203pp. Cambridge, MA: Harvard U. Press. %book, psychological principles, cognitive aspects, conceptualisation, pattern recognition%
- SMITH, M.J. (1975) *When I Say NO, I Feel Guilty*. 324 pp New York: Bantam Books. %book, popular, language issues, error handling%
- SMITH, H.T. & GREEN, T.R.G. (eds) (1980) *Human Interaction with Computers*. London: Academic Press. %collection, social aspects, general principles, communication, task allocation, applications, psychology of programming%
- SPENCE, R. (1975) *Man, computers, and creativity; the dialogue problem*. Armstrong Memorial Lecture. Columbia University, New York, 25th. April, London, UK: Department of Electrical Engineering, Imperial College. %paper, graphical i/o, real system, applications, screen layout, menus, dialog design principles, response time%
- SPENCE, A. & APPERLEY, M. (1982) Hierarchical dialogue structures in interactive computer systems. Institute of Electrical Engineers Conference on Man-Machine Systems, UMIST, Manchester, 6-9 July, London: Institute of Electrical Engineers, Publication number 212. %paper, dialog design principles, menus, dialog structure%
- SPIER, M.J. (1976) Software malpractice -- a distasteful experience. *Software Practice and Experience* 6, 293-299, June. %paper, program structure, debugging & faults, programming methodology, software maintenance, management attitudes%
- SPOEHR, K.T. & LEHMKUHLE, S.W. (1982) *Visual Information Processing*. 298pp. San Francisco: W.H. Freeman. %book, psychological principles, perceptual aspects, vision%
- STEVENS, S.S. (1966) *Handbook of Experimental Psychology*. 1436pp. 8th. printing originally published 1951. New York: John Wiley. %book, reference, psychological principles, perceptual aspects, vision, audition, touch, learning, human performance, physiology, ... %
- SUEN, C.Y. & DE MORI R. (1982) *Computer Analysis and Perception Volume II: Auditory Signals*. 167pp. Boca Raton, FL: CRC Press. %book, speech i/o, collection, auditory perception, recognition, syllables, ISI%
- THIMBLEBY, H. (1982) Interactive system design: a personal view. IEE Conference on Man-Machine Systems, UMIST, Manchester, July 6-9, 118-122, London: Institute of Electrical Engineers Conference Publication Number 212. %paper, conference, general principles%
- THOMAS, J.C. (1978) A design-Interpretation analysis of natural English with applications to man-computer interaction. *International Journal of Man-Machine Studies* 10 (5), 651-666, September. %paper, language aspects, communication, natural language%
- THOMAS, J.C., & CARROLL, J.M. (1981) Human factors in communication. *IBM Journal of Research & Development* 20 (2), 237-263, February. %paper, communication -- basic nature, conversation%
- THOMAS, J.J. & SCHNEIDER, M. (1984) *Human Factors in Computer Systems*. Norwood, NJ: Ablex. %book, general principles%

- THOMAS, J.J., HAMLIN, G., BUXTON, W., ROSENTHAL, D., YEN, A. & KASIK, D. (1983) Graphical input interaction technique (GIIT) workshop summary. *Computer Graphics* 17 (1), 5-30, January. %paper, survey, graphical i/o, general principles, software tools, modelling%
- VAN DEN BOS, J. (1982) Introduction to man-computer communication. *Computer Graphics Forum* 1 (4), 194-203, December. %paper, general principles, graphical i/o%
- VAN DIJK, T.A. (1977) *Cognitive Processes In Comprehension*. 352pp, Hillsdale, NJ: Lawrence Erlbaum. %book, psychological principles, underlying theory, cognitive aspects, comprehension, understanding, conversation, ai%
- WARFIELD, R.W. (1983) The new interface technology: an introduction to windows and mice. *Byte* 8 (12), 218-230, December. %paper, popular, innovative interfaces, graphical i/o, metaphors, knowing the user, documentation, psychological principles%
- WEINBERG, G.M. (1971) *The Psychology of Computer Programming*. 288 pp. New York: Van Nostrand Reinhold. %book, psychology of programming%
- WEISER, M. (1982) Programmers use slices when debugging. *Communications of the ACM* 25 (7), 446-452, July. %paper, debugging, dataflow model, program decomposition%
- WEISER, M. & SHERTZ, J. (1983) Programming problem representation in novice and expert, programmers. *International Journal of Man-Machine Studies* 19 (4), 391-398, October. %paper, cognitive aspects, user classes, problem representation%
- WESTON, G.F. & BITTLESTON, R. (1982) *Alphanumeric Displays*. 194pp. New York: McGraw-Hill. %book, displaying information, characters, hardware%
- WEYER, S.A. (1982) The design of a dynamic book for information search. *International Journal of Man-Machine Studies* 17 (1), 87-108, January. %paper, information access, electronic documents, database access, search strategies, smalltalk%
- WINSTON, P.H. & BROWN, R.H. (1979) *Artificial Intelligence: an MIT Perspective*. 2 vols. 492pp. & 486pp. Cambridge, MA: MIT Press. %book, ai%
- WITTEN, I.H. (1982) *Principles of Computer Speech*. 286pp. London: Academic Press, %book, speech output, general principles, dialog design principles, hardware, text-to-speech%
- WOODWORTH, A.S. & SCHLOSBERG, H. (1971) *Experimental Psychology*. 1279 pp. 3rd. Edition re-edited by J.W. Kling & L.A. Riggs. New York: Holt, Rinehart & Winston. %book, reference, psychological principles, perceptual aspects, vision, audition, touch, learning, ... %
- WRIGHT, P. & BASON, G. (1983) Detour routes to usability: a comparison of alternative approaches to multipurpose software design. *International Journal of Man-Machine Studies* 18 (4), 391-400, April. %paper, design alternatives, design procedures, knowing the user%

Keywords used in the bibliography
(words are bracketed by '%' characters)

accessibility	experiments and methodology
adaptive	expert systems
advertised products	feedback
applications analysis	general principles
animation	graphical i/o
attention	hardware
attitudes	help
audition	human performance .
auditory i/o bibliography	i/o types
book	icons
characters	illusions
closure	individual differences
cognitive aspects collection	information access
commands	information theory
command abbreviation	innovative interfaces
command naming	intonation
communication & protocols	job satisfaction
communication within teams	keyboards
communication - basic nature	keyed input
comparison	knowing the user
comprehension	language aspects
conceptualisation	language characteristics
conference	layering
control	leadership
conversation	learning/learnability
colour	left/right handedness
critique	legal aspects
database access	lsi
dataflow model	maintenance
debugging & faults	man as information processor
decision models	management attitudes
decision theory	memory
dialog	menus
dialog design alternatives	metaphors (organisational/integrating)
dialog design guidelines	models of users
dialog design principles	motivation
dialog design procedures	natural language
dialog specification/formal description	neural mechanisms
dialog structure	paper
dialog styles	pattern recognition
dialog tools ,	perceptual aspects
direct manipulation (of entities)	performance (& limitations)
disabled	personnel issues
displaying information	popular
documentation	problem decomposition
document preparation	problem solving in programming
early	productivity .
ease of use	program decomposition
editing	program specification
electronic documents	program structure & psychological complexity
error handling	programmer behaviour
experimental design	programmer performance

programming aids
programming methodology
programming style
protocol analysis
psychological fundamentals
psychological design principles
psychology of programming
rationale
readability
real system
recognition
reliability
report
response time reviews/surveys
rhythm
screen and panel design
search strategies semantic
smalltalk
social aspects
social factors
software accessibility
software tools
syllables
system design procedures
systems & applications
tactile i/o
task allocation
task analysis
telidon and such
text entry
text-to-speech
thesis
training
type fonts
typography understanding
user classes
user models (of systems)
user profiles
user satisfaction
VDUs/VDTs
vigilance
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