

## Henry G. Small

### Employment:

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| 2010-present | Senior Scientist, SciTech Strategies, Inc.   |
| 1977- 2010   | Director, Contract Research and Chief Scientist - ISI  |
| 1972-1977    | Senior Research Scientist - ISI  |
| 1971-1972    | Acting Director - Center for History and<br>Philosophy of Physics, American Institute of Physics,<br>New York    |
| 1969-1970    | Research Associate - Center for History and<br>Philosophy of Physics, American Institute of Physics,<br>New York |
| 1963-1967    | Teaching Assistant in Chemistry, University of Wisconsin   |

### Education:

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| 1971 | Ph.D., History of Science and Chemistry,<br>University of Wisconsin, Madison |
| 1966 | M.A., Chemistry, University of Wisconsin, Madison                            |
| 1963 | B.A., Chemistry, University of Illinois, Urbana                              |

### Honors and Professional Activities:

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| 1962         | Phi Beta Kappa   |
| 1974-1979    | Senior Fellow, Department of History and Sociology<br>of Science, University of Pennsylvania |
| 1977-1981    | Editor, <u>Newsletter</u> , Society for Social Studies of Science                            |
| 1979-present | Editorial Board, <u>Scientometrics</u>   |
| 1979-1981    | Council, Society for Social Studies of Science   |
| 1980-1982    | ASIS Committee on the Future of Information<br>Science                                       |
| 1985-1998    | Science & Arts Committee, Franklin Institute   |

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| 1986-present | Editorial Board, <u>Journal of the American Society for Information Science</u> |
| 1987         | ASIS Best <u>JASIS</u> Paper Award  |
| 1987         | Derek de Solla Price Medal, <u>Scientometrics</u>                               |
| 1988         | AAAS Fellow   |
| 1998         | Award of Merit, American Society for Information Science                        |

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Small, H. (1973). The relationship between citation indexing and word indexing: the study of co-occurrences of title words and cited references. *Proceedings of the American Society for Information Science*, 10, 217-218.

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Small, H. (1974). Multiple citation patterns in scientific literature: the circle and hill models. *Information Storage and Retrieval*, 10(11-1), 393-402.

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Small, H. (1976). Structural dynamics of scientific literature. *International Classification*, 3(2), 67-74.

Small, H. (1977). A co-citation model of a scientific specialty: a longitudinal study of collagen research. *Social Studies of Science*, 7(2), 139-166.

Small, H. & Koenig, M.E.D. (1977). Journal clustering using a bibliographic coupling method. *Information Processing and Management*, 13(5), 277-288.

Garfield, E., Malin, M.V. & Small, H. (1977). Citation data as science indicators. In: *Toward a Metric of Science*, Y. Elkana et al., eds. (New York: John Wiley), 179-207.

Small, H. (1978). Cited documents as concept symbols. *Social Studies of Science*, 8(3), 237-340.

Small, H. & Crane, D. (1979). Specialties and disciplines in science and social science: an examination of their structure using citation indexes. *Scientometrics*, 1(5-6), 445-461.

Small, H. (1979). Co-citation context analysis: the relationship between bibliometric structure and knowledge. *Proceedings of the American Society for Information Science*, 16, 270-275.

Small, H. & Greenlee, E. (1980). Citation context analysis of a co-citation cluster: recombinant-DNA. *Scientometrics*, 2(4), 277-301.

Small, H. (1980). Co-citation context analysis and structure of paradigms. *Journal of Documentation*, 36(3), 183-196.

Stewart, J.A., Small, H. & Hagstrom, W.O. (1981). The breakup and dispersion of a new conceptual 'continent'. *Geoscience Canada*, 8(1), 8-15.

Small, H. (1981). The relationship of information science to the social sciences: a co-citation analysis. *Information Processing and Management*, 17(1), 39-50.

Small, H. (1982). *Physics Citation Index, 1920-1929*. (Philadelphia: Institute for Scientific Information), 2 Volumes.

Small, H. (1982). Citation context analysis. *Progress in Communication Sciences*, 3, 287-310.

Griffith, B.C. & Small, H. (1983). The structure of the social and behavioral sciences literature. *Stockholm Papers in Library and Information Science*, Report TRITA-LIB-6021.

Small, H. (1984). Lives of a scientific paper. In: *Selectivity in Information Systems*, K. Warren, ed. (New York: Praeger), 83-97.

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Small, H., E. Sweeney, & Greenlee, E. (1985). Clustering the science citation index using co-citations. 2. Mapping science. *Scientometrics*, 8(5-6), 321-340.

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#### Reviews/Commentary:

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H. Small et al, "Co-Citation Clusters as Indicators of Specialty Development." Final report on Grant SRS-79-12157, October 1983.

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H. Small and D. Pendlebury, "Federal Support of Leading-Edge Research; A Report on a Method for Identifying Innovative Areas of Scientific Research and Their Extent of Federal Support," Final report on OTA Contract No. J3-4870.0, March 1989.

H. Small, et. al., "Analysis of the Research Literature on Aging." Final report on National Academy of Sciences Subcontract No. CNN-8633-9-001, April, 1989.

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H. Small, "Bibliometric Measures of Basic Research," Final report on OTA Contract No N3-2030.0, Sept. 1990.

H. Small, "Bibliometrics of Japan Studies," Proc. Workshop on Information Resources for Japanese Studies in the U.S., NACISIS, Japan, Dec. 1993.

H. Small and H. Rothman, "Investigations into the Structure of Science and Social Science using the SCI-Map System," in: Identifying Innovation in Social Science: Some Bibliometric Approaches, SPSG Review Paper No. 8, Oct. 1994.