Howard D.White: Recipient of the 2005 Derek de Solla Price Award of the journal Scientometrics

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Howard White has a long record of creativity and scholarship that spans information science, library science, and related areas in the social sciences. The more than 90 publications in his bibliography include two books, two ARIST reviews, and an extensive list of journal articles and conference proceedings. His work has been cited in more than 400 articles indexed in the ISI databases — an average of about 15 citations/year since 1977. While the citing articles come primarily from journals in LIS and Computer Science/Information Systems, his work has also been cited in a wide variety of fields in the natural and social sciences and humanities.

His selection for the Price Award reflects his extensive and substantial contributions to information science and scientometrics – bibliometrics and citation analysis, automatic visualization of co-occurrence data in scholarly literatures, innovations in online searching and evaluation of online bibliographic retrieval systems.

White is perhaps best known to the scientometrics community for his many important, innovative contributions to both theory and practice in bibliometrics and domain analysis – for which he received the ASIS Research Award in 1993 and the Award of Merit in 2004. A common thread among all of his works is *improvement of the interface where human beings, computers, and information meet.* His introduction of Author Co-citation Analysis and its associated visualization tools made co-citation mapping accessible to the broader research community. The founding paper in JASIS 1981, coauthored with Belver Griffith, mapped a relatively small set of authors in information science. It stands as his most cited paper and is a good example of his innovation skills. As he told me at the time, he was experimenting with searching the

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citation databases in Dialog and found that an author's name, as a cited author, could serve as a subject heading representing the general subject matter of that author's work and that two cited authors' names when ANDed together, functioned in the same way to retrieve items in a very specific subject area as two subject terms joined with a Boolean AND. Over the past quarter century, as readers of *Scientometrics* know, the techniques for ACA have spread world-wide both within and outside information science and scientometrics.

As first author of two ARIST reviews on bibliometrics and information visualization, he synthesized a wide range of applications and, more importantly, provided a theoretical framework for looking at the bibliometric ranked distributions as patterns of human choice behavior. The IV review set a useful list of questions that one should ask about the growing number of IV of document collections and results of text and document mining as those seen here at this meeting.

In the late 1990s, with his colleague Xia Lin and Jan Buzydlowski (their PhD student), and with support as a Drexel Research Scholar, White developed a technology for automatically generating and displaying ACA maps on the fly. His most recent innovation is "Author-Centered Bibliometrics" which combines citation analysis and information retrieval tools to create rich subject-relevant contextual profiles of individual scholars – work referenced by Cronin as invocation of "citation identity."

He is perhaps less well-known in scientometric circles for his innovative contributions to online searching and evaluation of bibliographic databases. In the early 1980s, he devised new methods of evaluating MEDLINE and related bibliographic database – using cocited document clusters as an evaluation tool – as part of a funded study of their coverage and indexing of the literature of the Medical Behavioral Sciences. His two chapters on literature retrieval for meta-analysis (1994) and the follow-up "Literature Retrieval for Interdisciplinary Syntheses" (1996) show online searchers new ways to gather concrete data from diverse disciplines – an increasingly critical contribution, as interdisciplinarity begins to dominate the research world. The first of these, a chapter in *The Handbook of Research Synthesis*, has been cited by almost 50 papers in various areas of the social sciences, including education and psychology.

His goal has always been to make information accessible and meaningful to users and scholars and, in doing this, he has addressed of the "big questions" Marcia Bates asked in 1999: the Physical Question – "What are the features and laws of the recorded-information universe" and the Design Question – "How can access to recorded information be made most rapid and effective. I might also note that he has continuously and actively worked to build bridges between information science and related disciplines such as social networks analysis and linguistics. This strong interest in the human and linguistic aspects of bibliometrics and IR pervade his research and

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writing and are clearly articulated in two very recent articles "Does Citation Reflect Social Structure? Longitudinal Evidence from the 'Globenet' Interdisciplinary Research Group" (*JASIST* 2004) and "Citation Analysis and Discourse Analysis Revisited (*Applied Linguistics* 2004).

White is an exemplary 'scientist-poet' of the sort he called for in his short essay in *JASIS*. For his important and widely adopted methodological and theoretical contributions to information science and scientometrics, for the intellectual rigor that his work demonstrates, for his lucid and graceful exposition, and for his breadth of vision, Dr. Howard D. White is a deserving recipient of the Derek de Solla Price Award, made biannually by the journal *Scientometrics*.

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