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FRANCIS NARIN WINS THE 1988 DEREK JOHN DE SOLLA PRICE AWARD

The Editorial and Advisory Board and the Publishers of *Scientometrics* are glad to announce that the 1988 Derek John de Solla Price medal has been awarded to *Francis Narin* for his distinguished contributions to the field of scientometrics.

Dr. *Francis Narin* the winner of
the 1988 Derek John de Solla Price Medal

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COMMENTS ON FRANCIS NARIN, RECIPIENT OF THE 1988 DEREK DE SOLLA PRICE AWARD

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'Science and technology indicators are quantitative measures of R&D activity. These indicators are used to assess R&D performance in the same manner that economic indicators are used to asses national and corporate economic performance'. A quotation from Francis Narin's first page of this company's introduction brochure Short and direct language, Derek de Solla Price would love this.

The use of specific data on science and technology for policy and management. Francis *Narin* provides science and technology indicator services to government and private clients. He was the first who systematically developed indicators that can answer quantitatively questions of the following kind:.

– are scientific papers published in basic science journals cited in again basic, or in applied and practitioner journals?

– is there a relationship between high priority scores on research grants and the scientific production (number of publications) and impact (number of citations)?

– are grants to medical schools or to specific national institutes more productive than grants to university departments?

– are younger scientists more productive than older;

– what is the trend of a country's scientific performance (as measured in publication numbers), and what is its impact (and where does that come from); to give a topical example: is British science declining or not?

– what are the areas of strength and weakness in the technology of a country, or of a specific company?

– what is the scientific basis of recent technological developments and innovations?

and so on.

A common criticism to work like this, is that it is 'only numbers'. Of course, this is not true. Structuring data in an innovative way does give new information, new insight. Numbers need explanation, but explanation needs data.

From the above it is clear that science and technology studies are not only Francis Narin's academic interest, but also his business interest. Like IBM, Bell, Philips, but

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of course smaller, a combination of business and research. I admire Francis *Narin* for the way he handles this difficult combination. The basis of his work is craftsmanship and thoroughness.

Narin's activities in science and technology studies started more than twenty years ago. To be more specific, 1988 is not only the year of the Derek de Solla Price Award for him, but it is also precisely twenty years ago that his company Computer Horizons was founded, in Chicago. But I can assure you that there is no particular aspect in the dynamics of science in coupling with a time lag of precisely twenty years the foundation of indicators business and this award.

A real dynamical aspect of science, however, is communicating your work and your results to colleague-scientists. Francis *Narin* published, although having his own company to manage, about 60 publications. It is fascinating that the list of publications does not only reflect his productivity in the field of quantitative studies of science and technology as such, but also his personal and intellectual interest in specific fields, ranging from special education for children to the linkages between industrial innovations and science.

Francis *Narin* published in a multitude of journals. To give you a few examples: *The Journal of the American Society for Information Science, Scientometrics, Social Studies of Science, World Patent Information, Physics Today, Research Policy, Nature.* But also a paper published in the *Journal of Studies on Alcohol.*

Let me return to science. I will try to highlight Francis Narin's most important contributions to the field of quantitative studies of science and technology, or science and technology. Of course, this small review is on my own responsibility. Undoubtedly, Fran has his own most dear pieces of work.

We start with Narin's important role in the famous project TRACES (Technology in Retrospect And Critical Events in Science) of the US National Science Foundation in 1968. The aim of this project was to search for the roots of civil technology in basic science. The project was a reaction on the highly criticized Pentagon project Hindsight.

A next important event was the publication in 1976 of the report 'Evaluative Bibliometric: The Use of Publication and Citation Analysis in the Evaluation of Scientific Activity', written again under contract with the National Science Foundation. It is without any doubt the pioneering work in using bibliometric data for application in science policy and research management. It also marks the important contributions of Fran *Narin* to the remarkable series of the *Science Indicators Reports* published by the US National Science Board.

At the same time, 1976, the concept of the journal influence weight, to improve Garfield's journal impact factor, was introduced by *Narin* and co-workers. Also

pioneering work was done on journal-to-journal linkages and disciplinary journal clusters.

A few years later, 1980, Mark *Carpenter,* Martin *Cooper* and Francis *Narin* publish 'Linkage between Basic Research Literature and Patents'. It is the beginning of a long series of, again pioneering, work on the use of patents and citations in patents for technology policy, R&D management, corporate planning.

Francis Narin's pièce de résistance is the linkage of science and technology by quantitative methods and techniques. In doing that, he does not only contribute to the field of studies of science and technology, but also to the ability of governments and industries to keep pace with rapid technological advances.

To speak in our own scientometric language, Fran Narin's work has a high impact, reflected in the very many citations received by his work. (No, I didn't make a citation analysis this time). We all know the tragic fate of a citation: when it is given in a paper published in a journal not covered by the Institute for Scientific Information, it is lost for ever. Every scientist has his or her citations cemetery.

But, there are notable exceptions. About a year ago (March 1988), Fran was once again in Leiden. He was very cheerful that morning. Had the students around Hotel Nieuw Minerva been quiet this time, last night? Maybe, but that was not the point. He showed me the front page of the *New York Times,* Monday, March 7, 1988. It came immediately from the States to Leiden, you have a fax or not. And he said: 'look!'. I saw a picture of a demonstration in Llasa, the capital of Tibet. O, I said, they don't like you in Tibet Fran, too much Chinese journals in your fixed journal set? But of course, this was not the message. 'A Novel Technique Shows Japanese Outpace Americans in Innovation'. One page in the *New York Times,* I am sure this is the nicest non-ISI citation a researcher can dream of. Let me quote a small piece of the *New York Times* article. 'When the numbers are broken down on a year-by-year basis, the gap between Japanese and American patents appears to be growing, although Dr. *Narin* of Computer Horizons cautioned that the statistical significance of the trends was uncertain'. So, you see, there is still work to do. And that's why we are here.

Without any doubt, Francis *Narin* had and has a very important impact on the field of quantitative studies of science and technology, and on the development and use of science and technology indicators.

The 1988 Derek de Solla Price Award is well-deserved, for his scientific work, craftsmanship, and scholarship.