

I am often asked if information science or a specific aspect of it (citation analysis) can contribute to the field of technology assessment. Stated in different terms one can ask, "How predictive can we make information analysis?" About one thing I am certain, information retrieval through citation indexing does produce results which help the investigator uncover significances and relationships that he had not originally perceived. That is why I called it *a posteriori* as opposed to *a priori* indexing.² We also know that the use of citation analysis can describe, sometimes in an elegant way, the history of scientific fields. By the display of these "paradigms" one may gain some insight into the future. We also know from certain case studies, as I once did long ago during the Thalidomide tragedy, creative literature analysis may in fact provide clues that less precise individuals might call predictive. There was in fact evidence in the literature that would cause many serious investigators to ponder the possible teratological effects of that drug.

As another example I might mention my own long-standing concern with the long-term effects of electromagnetic

radiation, about which we seem to know so little. Somehow invisible phenomena have always been a source of concern. Communication satellites presumably are innocuous sources of radiation, despite their increasing number. A colleague at the FCC assures me that the power which reaches the earth from an INTELSAT satellite is about 10^{-30} of the exposure limit recommended by the American Standards Institute.³ Nevertheless, electromagnetic pollution is a much more down-to-earth business. The *potentially* harmful effects of radar stations and other high-powered communication transmitters are far from trivial, especially where their power is, in effect, multiplied by large antennas. My friend also assures me that "problems resulting from such transmissions have long been recognized by both government and industry groups and both are working on them." Ironically, my original interest in the effects of "invisible" radiations stems from some interesting studies concerning the effects of electromagnetic phenomena on patients in mental hospitals!⁴ It is somewhat reassuring to learn that someone is doing technology assessment even before Congress acts.

1. Kash, D.E. & White, I.L. Technology assessment: harnessing genius. *C&E News* p. 36-41, November 29, 1971.
2. Garfield, E. Citation indexes for science. *Science* 122:108-111, 1955.
3. Ende, A.H. Personal communication, March 8, 1972.
4. Friedman, H., Becker, R.O., and Bachman, C.H. Psychiatric ward behaviour and geophysical parameters. *Nature* 205:1050, 1965.