"""""Current comments"

The Mythology of Scientific Information and Doomsday Philosophers

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The article "Drowning in Data" by Frank Kendig¹, managing editor of the just defunct Saturday Review of the Sciences, reveals a total incomprehension of the problem. It seems to me typical of a rather romanticized and mythical view (that science writers in particular seem to relish) of the science information problem.

There is absolutely no evidence to support Kendig's claim that "our rate of knowledge acquisition is accelerating." Information does not produce either knowledge or wisdom. S.A. Goudsmit, editor of *Physical Review*, commented on the difference some time ago².

Kendig quotes Emilio Segree, a Nobel Prize winner: "On K-mesons alone, to wade through all the papers is an impossibility." But I do not believe that Segree, or any other Nobel laureate, has as much difficulty as Kendig suggests in separating "the gold from the dross." There are complex mechanisms at work in the process of scientific information, in-

cluding what is traditionally called refereeing and what sociologists call the reward system in science. The aggregate working of these mechanisms enables scientists to select what is important.

It is a favorite game of science writers to use the hackneyed example of Gregor Mendel as a way of perpetuating the myth that there are hundreds or thousands of unsung heroes in science whose brilliant ideas remain buried in the literature, waiting for discovery. To take such a situation as the problem of modern science information is an absurdity.³

Kendig asks, "What if there is a tiny bit of data buried in this paper [on K-shell coulomb-ionization cross sections], some off-hand comment that could radically change the thinking of geologists or oceanographers or even plastic surgeons? Would this piece of information lie fallow for a generation like Mendel's notions of dominant and recessive traits? This is the problem; no one yet has a solution."

What a mockery SR makes of the legitimate and very effective job that is being done by the information industry to provide scientists with access to information on an unprecedented scale. The problem of the modern scientist is not to find an automaton that will think for him, that will perceive relationships no one has perceived before, that will pose questions never posed before, that will, in other words, utilize buried or otherwise unobtainable information. Artificially intelligent machines may do some of these things some day but that is not the issue.

To add insult to injury, Kendig suggests that we train a new kind of scientist (what he calls a "synthesist"), as though the professions of information scientist and science-information specialist did not exist. It is this suggestion that reveals the whole absurdity of his position. As far as I can tell, the "synthesist" is some sort of super-scientist. He is smarter, and presumably able to use the information his colleagues don't, and able to see significances his colleagues can't. (He may also live in a world of 48-hour days.) But all this assumes that the information is available, and that he wouldn't drown in it.

Presumably, the fault, dear Brutus, is not in our information stores, but in ourselves. Hence the need for the synthesist. But you can't have it both ways.

Undoubtedly, the professional science writer, when he joins the ranks of science-information specialists, can make a much-needed contribution to this never-ending task, but I would hope that he will continue to perform the function of interpreting science for the layman. If Kendig's editorial is what can be expected from the science-writer, we shall never eliminate the sense of hopelessness, the Doomsday philosophy, that pervades so much writing today.4

- Kendig, F. Drowning in data. Saturday Review of the Sciences 1(3): 26, 24 March 1973.
- Goudsmit, S.A. Is the literature worth retrieving? Physics Today 19(9):52-55, 1966.
- Zirkle, C. The role of Liberty Hyde Bailey and Hugo de Vries in the rediscovery of Mendelism. J. History Biol. 1(2):205-18, 1968.
 - discovery of Mendelism. J. Heredity 55(2): 65-72, 1964. There is a mythology about Mendel's work which has been perpetuated. His work was not buried in the literature. It was seen and cited. Neither a Science Citation Index nor a Chemical Abstracts, nor a hypothetical Synthesizer would have changed the fact that Mendel's work was simply ahead of its time.
- Readers will find a pleasant contrast to Kendig's pessimism in two recent books: John Maddox's The Doomsday Syndrome (New York: McGraw-Hill, 1972), and Stephen Franklin's Knowledge Park (Toronto: McClelland & Stewart, 1972).