

Current Comments

Science News — A Pioneer
in Science Journalism

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There are certain institutions in the world of science that one tends to take for granted. It is as if one assumes that they were always there and always will be. I suppose *Science* and *Nature* fall into this category. In my recent discussions of science journalism^{1,2} there was one such institution that I neglected to mention. I guess I have been reading *Science News* so long and regularly that I just took for granted your acquaintance with it.

Science News, now in its 58th year of continuous publication, is indeed one of the real pioneers in the dissemination of science information to the public. A weekly publication of Science Service, Inc., *Science News* began publishing in 1921, long before science was "fashionable." I knew Watson Davis, who edited *Science News* from its beginning until 1967. He also co-founded the American Documentation Institute (ADI), the forerunner of the American Society for Information Science.³

I met Watson at the time ADI decided to become a professional society rather than an organization of institutions. ADI had been almost totally preoccupied with promoting microfilm as the

panacea for the world's documentation problems. I also knew Watson Davis through my acquaintance with his son-in-law Calvin Mooers who coined the term "information retrieval" just 30 years ago.

I can't remember when I first started reading *Science News*, but I always found it fascinating. I tried to get my children interested in science through it and one of Science Service's programs, THINGS of Science. I think my son Josh first became fascinated with dinosaurs through an item I gave him from *Science News*. *Science News* was always my tool for bridging the gap between my work in science and my children's preoccupation with other things. Well, I guess a lot of other scientists use *Science News* the same way.

Each week *Science News* is mailed to more than 170,000 subscribers in more than 80 countries, including the USSR. That number includes business, college, and library subscribers, as well as individuals. *Science News* does very little major advertising. This has kept the number of subscribers low. Regrettably, there are no newsstand sales. Many people, unfortunately, simply do not know of

Science News' existence, the editors feel. According to a 1975 survey, more than half of *Science News* readers are scientists or work in science-related professions.⁴ The same survey found that 77% of those who read the magazine are college graduates.

Glenn T. Seaborg, president of the Board of Trustees of Science Service, explains that *Science News* is aimed toward four groups: college-educated adults, teachers, students, and scientists.⁵ A one-year subscription to *Science News* costs \$15.50, and can be ordered by writing the Subscription Dept., 231 West Center St., Marion, Ohio 43302.

E.W. Scripps, co-founder of the Scripps-Howard newspaper chain, and W. E. Ritter, a biologist at the University of California, established Science Service, a non-profit organization, in 1921.

According to Kendrick Frazier, *Science News* editor from 1971 to 1977, who is currently a free-lance writer, Scripps and Ritter "saw that the most important science news never reached the public. The two of them became convinced of the need to translate scientific developments into understandable terms and to give them wider circulation."⁶ At the time, adds Frazier, "Science reporting in the press consisted of cute features about the oddball scientist tinkering in his laboratory and of Sunday-supplement imaginative excursions into entertaining pseudoscience." Or, as Watson Davis once said, "The way to report a scientific

meeting was to pick out the big words in the program and write a funny story."³

Scripps and Ritter set out to legitimize and popularize science through Science Service. According to Dietrick Thomsen, senior editor and physical sciences editor of *Science News*, although Scripps and Ritter maintained active interests in Science Service throughout their lives, they largely allowed the organization to run itself. Of the two, Scripps was particularly interested in Science Service, and even today the Scripps Trust maintains a position on its Board of Trustees.⁷

When they founded Science Service, Scripps and Ritter hired Dr. Edwin Slosson, former chemistry professor and author of *Creative Chemistry*, to direct Science Service. Slosson in turn hired Watson Davis to edit Science Service's publication. Davis had started his career as an assistant engineer-physicist at the National Bureau of Standards and then turned to journalism as the science editor of the *Washington Herald*. Under their guidance, the original publication, *Science News Bulletin*, consisted of 16 mimeographed pages of material sent to 31 newspapers for syndication. The articles from the *Bulletin* appeared in these papers. However, soon after publication of the first *Science News Bulletin*, Science Service began to receive requests for direct access to the *Bulletin* from individuals, schools, and libraries. In response, on March 13, 1922, the Service started issuing the *Science*

News-Letter. The *News-Letter* was no different from the *Bulletin*, and was, in fact, merely “stapled-together reproductions of the service’s press copy.”⁶ Unlike the *Bulletin*, however, the *News-Letter* was available for personal subscription. The *News-Letter* was 16 pages long, with several regular features: for example, Radio News of the Week, News of the Stars, and Science of Growing Things. It also contained several articles. Says staff writer Susan West, “Twelve articles were covered on 13 pages, demonstrating Davis’ attention to conciseness and variety.”⁸ The publication had no formal cover or headlines.

In 1926 the *Science News-Letter* became a printed magazine. Book reviews and a long feature article were added to each issue. The magazine continued, however, to be a by-product of the company’s newspaper service. It remained basically unchanged until the late 1960s. In 1966 the name was shortened to *Science News* and the publication for individual subscribers, rather than that for newspaper syndication, became the principal product of Science Service. The paper shifted, says Susan West, “from a lay publication to a more professional magazine with full technical explanation and scientific detail. There was also more emphasis on the politics of science.”⁸ Adds Kendrick Frazier, “By 1970 the earlier relationship had completely reversed: now the staff prepared original reports for the magazine, and only selected

portions...were disseminated to newspaper clients...”⁶

Despite the many changes, *Science News* remains dedicated to its founding principles to report science news accurately and clearly. Dr. Slosson, who directed Science Service from 1921 to 1929, developed a list of writing “don’ts” for his science writers that are still followed today.⁶ *Current Contents*[®] readers may find them of interest because they are similar to some tenets I try to follow in writing these essays. Among them:

“Don’t overestimate the reader’s knowledge and don’t underestimate the reader’s intelligence. He may not know as much as you about this particular thing—let’s hope not, anyway—but otherwise he may be as bright as you are—let’s hope so, anyway.”

“Don’t say ‘this discovery is interesting’ unless you can prove that it is, and if you can prove it you don’t have to say it.”

And:

“Don’t think you must leave out all the technical terms. Use them whenever necessary without apology, and if possible, without formal definition. People are not so easily scared by strange words as you may think.”

Watson Davis edited *Science News* from 1921 until his death in 1967. He also directed Science Service for much of that time. His colleagues say that, like Slosson, he had a profound effect on *Science News* reporting. Explains Susan West: “Realizing that sensational pseudo-science is often confused

with the real thing, Davis outlined 91 stores to be handled with care, which he recommended not be used or used only after thorough investigation. Included were cancer cures, universal germ killers, telepathy, obesity drugs, perpetual motion, sea serpents, inheritance of acquired characteristics, creation of life and 'sweeping claims of any sort.' His insistence on clarity, careful subject choice and enthusiasm for all science still pervades *Science News*.⁸

Today, *Science News* is a short, concise, weekly magazine of science articles. Since 1977 it has been edited by Robert J. Trotter, the magazine's former senior editor and behavioral sciences editor. Each issue contains between 10 and 20 pages of science news, with an additional three or four pages of advertisements. A one-page black and white advertisement costs \$1.495.

The initial pages of the magazine are devoted to "Science News of the Week." Another page of each issue contains short pieces on new developments in areas such as astronomy, biomedicine, biology, behavior, earth sciences, and zoology. The areas covered vary from week to week. Recent items in this department have included pieces on a growth-stimulating substance found in mother's milk,⁹ a drug that induces identical twins in mice,¹⁰ and a study of eye contact between strangers passing on the street.¹¹

One, sometimes two, feature articles comprise the final section of the magazine. One recent article

discussed the social aspects of spider web-building,¹² while another, by Joan Arehart-Treichel, covered the slow destruction of the barrier beaches that line the United States' eastern seaboard.¹³ I am constantly amazed at her creativity and productivity. These feature articles are among the best in science writing.

In fact, two *Science News* writers recently received awards for their work: Jonathan Eberhart, space sciences editor, won the 1976 American Association for the Advancement of Science—Westinghouse Science Writing Award, and John Douglas, who is no longer with *Science News*, received the 1978 Science in Society Award from the National Association of Science Writers. Other writers, including Arehart-Treichel and Joel Greenberg, have won awards for pieces in other papers and journals. It is because of this consistently high quality of writing that articles from *Science News* are so frequently selected for ISI's Press Digest.

In addition to these feature articles, *Science News* prints letters from readers and reviews new science books and television programs. The reading is interesting, varied, and enjoyable. It is not too complicated for the lay person, and is a delight to scientists who appreciate having complex subject matter interpreted clearly and intelligently.

In its effort to bring science to the public, Science Service has done much more than just publish *Science News*. To support its many activities, Science Service occas-

sionally seeks grants from educational foundations, although not from individuals.

From 1930 to 1959, Science Service, with CBS, produced a radio series called "Adventures in Science." On this interview program, Watson Davis talked with over 1,300 scientists.³ I was not aware of this at the time I discussed the idea of a science radio network,⁴ but I hope to hear some of these interviews the next time I visit the Museum of Broadcasting in New York.

Convinced that science as it is taught in schools is boring for students and actually alienates many of them, Science Service initiated the Science Youth Activities Program in the early 1940s to involve young people in science. This program provides numerous extracurricular science activities for young people.⁵ For example, the local science fairs, which culminate in the International Science and Engineering Fair, are competitions in which students exhibit their science projects.

Science Talent Search is a scholarship program for high school seniors administered by Science Service and supported since its inception by Westinghouse. Here the emphasis is on the quality of the independent research projects and school grades. Participants must also answer questions to demon-

strate their interest in science. In past years the projects done for these competitions have become so advanced that the scientist-judges have complained they "do not have sufficient background to evaluate all the exhibits to which they have been assigned."⁵

The final part of the Youth Activities Program, THINGS of Science, consists of monthly kits available by subscription for \$15.00 a year. Intended for students aged 10 to 16, the kits contain instructional manuals and necessary materials to enable students to perform simple science experiments at home. It's a great way to spend a few hours with adolescents if you can haul them away from the TV set.

Throughout their long history, Science Service and *Science News* have increased public awareness of and interest in the sciences. I think Watson Davis explained it best. According to Kendrick Frazier, Watson said "that Science Service's efforts, beginning in the 1920s, helped create the relationship of mutual respect, if not always unquestioned trust, that exists today between science and the press and helped establish the tradition of solid coverage of science to provide the information and understanding the citizen needs to function in today's complex world."⁶

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Current Comments

Science Journalism: You've Come a Long Way Baby, But . . . !

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Most of the public's knowledge of science, technology, and medicine comes from the mass media. Since so many social, political, and economic issues revolve around scientific questions, you might expect significant science coverage. The sad fact is that science reporting is minimal.

In 1975 only about 5% of American newspaper stories was devoted to science and medicine—the *same* figure reported for 1958 (p. 455).¹

Up-to-date figures on science news are difficult to find. We called several major newspapers to ask for estimates. The *New York Times* and *Washington Post* told us they did not keep track of such information. Robert C. Cowen, science editor of the *Christian Science Monitor*, estimates that one page per week goes to natural science.

I believe that European newspapers do a much better job of covering science. However, this coverage is difficult to quantify. Dr. Bernard Dixon, editor of *New Scientist*, estimates that the space allocated for science and technology in Britain's six national dailies

“is so small as to be negligible—certainly less than one percent.”² Dr. Greta Jones and Professor A.J. Meadows of the University of Leicester's Primary Communications Research Centre in England reported that the London *Daily Telegraph's* amount of science coverage has actually been declining. In 1968, they say, the paper published 515 items relating to science; in 1969, 409; in 1971, 396; and in 1973, 290.³ But from informal inquiries I have learned that Russian newspapers devote roughly 5 to 10% of their space to science, and that many news stories include more technical detail than American readers are accustomed to getting. I do know that the German *Frankfurter Allgemeine Zeitung* has a large full time staff of science writers. They subscribe to *Current Contents*[®] and use it regularly.

Popular magazines deal with a wide variety of specialties. It is difficult to make generalizations about the amount or quality of science writing in these magazines as they are aimed at so many different audiences. Bill Katz of the State

University of New York at Albany, editor of the "Magazines" column in *Library Journal*, estimates there are about 2,000 of them published in the world today.⁴ *Time* and *Newsweek*, America's two best known weekly news magazines, have circulations of about five and three million, respectively. Both regularly publish short features on science, medicine, and the social and behavioral sciences, although they rarely do an in-depth cover story (of 5 or 6 pages) on a science topic.

My friends at ISI® who regularly watch television tell me that only a small fraction of American TV is devoted to science. It was not easy to get relevant data. The research department at the American Broadcasting Company (ABC) said one to two percent of the network's news coverage goes to science. The National Broadcasting Company (NBC) and the Columbia Broadcasting System (CBS) couldn't give us exact figures, but the amount is probably roughly the same. So much for science on the commercial networks.

The Public Broadcasting Service (PBS), however, estimated that about 11% of their daytime hours devoted to instructional programs cover science. Unfortunately, these programs reach a relatively small part of the total viewing audience.

The only weekly American TV program which deals with general science is PBS's *Nova*. PBS tells us that in February of this year *Nova*

reached 4.88 million households, or only about 5.7% of the homes in the US.

The BBC, sometimes helped by American co-sponsors, does better. Their *Horizon* programs give a comprehensive treatment to different areas of current scientific research. They have also produced such outstanding two-hour epics as "The Restless Earth." This covered plate tectonics for the informed layman.

National Public Radio, which, like PBS, is funded by the Corporation for Public Broadcasting and private donations, tells us that roughly 5% of the material sent over its 180 stations deals with science. However, as I mentioned in an earlier essay, the American Chemical Society's *Man and Molecules*, a science program aimed at the lay audience, is broadcast by 500 commercial stations in the US and other countries.⁵

Of course, none of these estimates takes into account science-oriented entertainment programs. For example, *Marcus Welby, M.D.* would not be classified as science reporting. But this program (now in reruns) does indeed convey a considerable amount of authentic medical information. All medical data was checked with qualified consultants. Unfortunately, the program gives a syrupy and grossly distorted view of the present-day American family doctor. If every doctor spent as much time with each patient as Welby does, we'd

need at least five times as many doctors. Maybe we do, but we don't have them now!

David Perlman, science editor of the *San Francisco Chronicle*, asserts that there is "virtually no biology, no behavioral science, no physical science on everyday television."⁶ But commercial TV will drop everything to cover a manned flight to the moon. Carl Sagan claims that "in all three [commercial] network news departments there is not a single person whose job includes scanning *Science* or *Nature* each week for newsworthy material."⁷

Apart from the abysmally small quantity of science reporting in newspapers or radio and TV, what about the quality?

One good example of a highly publicized story was the 1976-77 swine-flu vaccination program. The scientific aspects had grave implications for society. In 1976, the US government launched a \$135 million program to inoculate the American people against an epidemic that never materialized. Several elderly people in Pittsburgh, Pennsylvania died shortly after receiving the shot. This led to fears that the vaccine itself was dangerous.

Unlike many science projects, which don't affect members of the public personally, this one affected everybody. In the face of apparent confusion and incompetence on the part of the government, every American had to weigh the risks of

catching swine flu against the risks of taking the shot.

Dixon asserts that the coverage of the swine flu vaccine debacle by major US newspapers is a model of science journalism. "Instead of blow-by-blow accounts of every minor twist in the plot," he writes, "news features were used to convey in a balanced and informative fashion principal shifts in the argument."²

However, David Rubin and Val Hendy of the New York University School of Journalism claim that coverage by papers such as the *New York Times*, *Washington Post*, *Los Angeles Times*, and *Miami Herald* were exceptions to otherwise mediocre coverage.

They studied swine-flu stories in 19 daily newspapers. They also studied the evening news shows of the three commercial television networks. And they looked at coverage by the two major syndicated American wire services, Associated Press and United Press International. (Associated Press serves 1,300 newspapers and radio and TV stations in the US and over 100,000 abroad. For United Press International the figures are 1,150 and 2,250.) Rubin and Hendy focused on the week of October 11-17, 1976, "the week the [immunization] program began in earnest, the week a number of elderly people died after receiving the shot."

They conclude that, "while most press coverage was unoriginal, predictable, [and] superficial...it

was not misleading, sensational or inaccurate except in a couple of instances." They complain that *most* of the coverage consisted of body counts and the detailing of the byzantine twists and turns of the *political* side of the story. Coverage, they say, "faithfully reflected the confusion among public health officials."⁸

Thus, their agreement with Dixon was qualified somewhat. Dixon complains that balanced, comprehensive science reporting is all too rare in Britain. Rubin and Hendy argue that, at least in the swine-flu case, it was rare except in the case of major US newspapers.

The question is, how typical is this particular story? The quality of science reporting in newspapers has, on the average, increased greatly since the 1920s. Dr. Rae Goodell teaches science writing at the Massachusetts Institute of Technology. She noted that many journalists classify science reporting from early in this century as "gee-whiz" reporting—the kind that concentrates on the sensational side of science. The '40s and '50s saw "conveyor belt" reporting. Such science stories may clearly explain the technical aspects of a discovery to the reader. But they do not examine the larger social, economic or political repercussions of the story.

"Gee-whiz" and "conveyor belt" reporting are still with us today. But Goodell and other observers see the rise, in the last decade or so, of "science policy reporting." This type of science journalism tells

readers what new developments and discoveries *really* mean, and how they affect their lives (p. 127-8).⁹

Science reporting on TV generally has not reached this stage of maturity. Rubin and Hendy, in their study of the swine-flu story, singled out television for especially severe criticism. No network, they assert, preempted regular programming to cover the swine-flu case. Nor did any of them try to answer questions like "What is swine-flu?" or "What is the risk of inoculation?" The networks offered only "typical correspondent-on-the-scene coverage." Rubin and Hendy comment: "It was a sad performance by television, on which 36% of Americans say they rely exclusively for their news."⁸

Other observers have criticized television for excessive coverage of the paranormal and "pseudoscience." NBC in particular has been censured for lavishing attention on the dubious "ancient astronaut" question. And on October 30, 1977, NBC aired "Exploring the Unknown," a program on "psychokinesis," or the ability to move objects by psychic power. The Committee for the Scientific Investigation of the Claims of the Paranormal (CSICP) condemned the program for giving the impression that the existence of such psychic powers has been scientifically validated. Its complaint to the Federal Communications Commission was recently published in *The Humanist*, which CSICP chairman Paul Kurtz edits. Speaking for CSICP, Kurtz said

NBC should provide equal time and funding for a program to present "the critical scientific viewpoint."¹⁰

CSICP's aim—to keep the public skeptical of occult or paranormal reports—is laudable. Telepathy, UFOs, ancient astronauts, biorhythms, astrology, and the Bermuda triangle are all topics which excite the imagination, even if they carry with them questionable scientific validity. Many find it more fun to believe in them than to disbelieve in them. In the minds of many editors and TV programmers (and readers and viewers), stories about such alleged phenomena make better entertainment than the rebuttals.

However, Carl Sagan has managed to remain quite popular on TV even though he debunks such theories. He has also performed this valuable service in books such as *The Dragons of Eden*, where he writes:

...There is today in the West...a resurgent interest in vague, anecdotal and often demonstrably erroneous doctrines that, if true, would betoken at least a more interesting universe, but that, if false, imply an intellectual carelessness, an absence of toughmindedness, and a diversion of energies not very promising for our survival.... It may be that there are kernels of truth in a few of these doctrines, but their widespread acceptance betokens a lack of intellectual rigor, an absence of skepticism, and a need to replace experiments by desires.¹¹ (p. 247-8)

Much can be done to improve the treatment of science in newspapers and television. But both scientists and reporters need to reach a better understanding of each others' professional concerns.

For example, scientists must realize that reporters are under severe deadline pressures which usually prevent print or TV journalists from doing much research on their own.

Space is also at a premium in newspapers. A story may have to be cut, sometimes by copy editors who may not realize that an important clarification or explanation is being sacrificed. Walter Sullivan of the *New York Times* had 30% of a story on quarks cut. The result was that through no fault of his, only one scientist's name was mentioned, but not the names of others who contributed significantly to the discovery (p. 124).⁹

Reporters' stories face another peril at the copy desk: headline writers may give items titles that are short, snappy and attention-grabbing—but not completely accurate.

Sagan has a headline horror story. He gave a press conference where he spoke of the possibility that organic molecules might exist in the atmosphere of Jupiter. He says he made it very clear that he was talking about organic molecules, not life. Yet the following day a San Francisco headline declared: "Life on Jupiter, scientist says." (p. 173)⁹

Television reporters, too, are allotted only a few minutes on the air to tell their stories. Tapes must

be edited and valuable information dropped from an interview. And of course, the reporter has no control over the way the anchorperson (the broadcaster who coordinates the news program) will lead into the story.

Reporters have the obligation to understand scientists' problems and professional concerns. If a scientist takes the care to qualify a statement, that qualification should get a prominent place in the story. Also, depending on the size of the news operation and reporters' schedules, it is possible for reporters to help write headlines and edit stories, to avoid inaccuracies and distortions.

Also, scientists should realize that, as Perlman puts it, reporters "are in business to report on the activities of the house of science, not to protect it, just as political writers report on politics and politicians."⁶ Scientists cannot expect reporters to act as public relations agents, even though the great majority of science writers probably have a favorable attitude towards science and scientists.

The best popular science writers strive to learn what they can about science. In their swine-flu study, Rubin and Hendy assert that reporters' science backgrounds made the biggest difference in the quality of the coverage. Lawrence K. Altman of the *New York Times*, for example, is an MD.⁸ Yet many reporters begin without a scientific specialty or a strong general science background.

Perlman asserts that this is not an entirely bad thing; that on-the-job

training has worked for some. He writes that Walter Sullivan is "virtually a card-carrying geophysicist by now, he has written so often on the subject." Perlman, himself without formal science training, describes his job as "a full-time, perpetual fellowship to a graduate school with a varied and endlessly challenging curriculum."⁶

You don't need a Ph.D. to be a good popular science writer. And perhaps it doesn't matter whether reporters get their science training in or out of universities, though more formal training might be called for.

Relatively few journalism schools offer courses in science writing. A *Directory of Science Communication Courses and Programs* lists 34 programs and 105 courses in 58 colleges and universities in the US.¹² Since science writing carries with it special problems not faced by reporters of politics, business or sports, more formal training might be needed here.

Some organizations are trying to improve science news by making scientists in certain fields available for interviews by reporters. The public relations office of Drexel University in Philadelphia operates a "Deadline Doctors" program. It is designed to help reporters who need a qualified source on a scientific topic. Calls are referred to an appropriate faculty member.

The Society for Neuroscience, a group of 4700 scientists who have done research relating to the nervous system, plans to introduce a similar service this fall. The Bethesda, Maryland-based group,

publisher of the quarterly *Neuroscience Newsletter* and the annual *Neuroscience Proceedings*, will publish a directory of scientists who expressed willingness to talk to reporters in need of a clear explanation or quotable source.

The American Cancer Society invites science writers to attend its annual meetings. This gives writers a chance to hear the latest developments in cancer research. The Federation of American Societies for Experimental Biology publishes a newsletter called *FASEB Feature Service*. This monthly publication is distributed without charge to about 400 newspapers. It explains new developments in the laity's language.

Some organizations have grown up with the specific aim to improve science writing. The National Association of Science Writers, Box H, Sea Cliff, New York 11579, is a group of about 1,000 science writers and editors. It holds seminars on science writing at the annual American Association for the Advancement of Science meeting. Participants discuss the problems of communicating science-related information through the various media. Both journalists and scientists attend these seminars.

The Council for the Advancement of Science Writing, 618 N. Elmwood Oak Park, Illinois 60302, is a group of 26 writers, editors, television executives, scientists and physicians. The group tries to upgrade the quality of science writing, and improve the relationship between scientists and the media. CASW holds annual press

briefings on new horizons in science and the social and behavioral sciences as well.

One of CASW's special programs provides on-the-job training to journalists. Journalists who can't take time off from work for special training are supplied with textbooks and journal subscriptions. Also, CASW members provide guidance on how to deal with scientist-sources, and how to cover scientific meetings.

Another CASW program brings journalists directly into laboratories or field studies. Journalists spend weeks or months with scientists to get a better idea of how research is actually conducted.

Other journalism or scientific societies could try offering services similar to these. The fact that some groups are already trying to improve the system by opening communications is cause for optimism.

Calls for cooperation between various professions go out constantly. Yet between journalism and the sciences, cooperation is especially important. Journalists and scientists both have a stake in raising the quality of science reporting. Science is at least as important as politics, sports, or the personal lives of movie and TV stars. And the less the public knows about what is going on in science, the less likely it is to hold intelligent opinions about the directions research should take and the amount of funding it should receive.

Science journalism has come a long way from the "gee-whiz" days but it still has a long way to go. Advances in television technology may

lead to improvements in the quality of information that the public gets via the small screen. I have described elsewhere how the British "Prestel" (formerly Viewdata), operated by the British Post Office, may revolutionize the dissemination of scientific information.¹³ ISI's European branch supplies the Prestel system with a science news segment called SCITEL™.¹⁴ However, the problem with the commercial networks does not seem to be lagging technology but lagging will. The networks could be doing a far better job of reporting science with the resources they already have.

Journalism itself leaves much to be desired but the investigative reporting typified by Bernstein and

Woodward in the Watergate case signalled a new era.¹⁵ Just this sort of thorough investigative reporting is what we need in the mass media. They would do well to emulate the excellent job done by *Science* in its "News and Comment" Section.

That the public is ready for more science I have no doubt. The AAAS is studying the feasibility of a science magazine geared to a mass audience. And the publishers of *Penthouse* and *Viva* have announced a new science magazine, *Omni*, to be launched in September. All in all I think we can say about science journalism, as they do in the ads: "You've come a long way baby." but you've still got a way to go!

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