

Grey and Black on the Internet

A word from the CBE InterViews editor—The “grey literature”—defined here as reports, proceedings, and other technical material usually distributed in limited quantities by clearinghouses, sponsors, and individuals rather than by traditional publishers—has lived more or less peaceably for some years alongside the “black/white” publications that most CBE members edit, here referred to as “published literature”. At one time, journal editors, scientists, and traditional librarians looked askance at these products because of their dubious legitimacy (because they may not have been reviewed, or contained preliminary or rejected material) and the difficulty in evaluating, cataloging, and retrieving them. Now that the grey and black literature appears in both electronic and print forms, it seemed worthwhile to explore present attitudes toward the grey literature and the community structure of grey and black/white forms of scientific information.

Dominic Farace, Grey Literature Network Service (GreyNet), organizes national and international conferences on grey literature, the most recent one at the University of Maryland, where I interviewed him. CBE members Douglas Fisher, BIOSIS; and Lois Ann Colaianni, National Library of Medicine; agreed to join the interview later by e-mail. Colaianni added that her comments were integrated with those of her colleagues—Judith Eannario, Jane Bouton, and Duane Arenales.

Q: What significant changes have you seen recently in the production of and access to grey literature?

Farace: The quantity of scientific information increases in both electronic and print forms of published and grey literature. Commercial publishers like Elsevier now publish on CD-ROM and advertise at Websites, as do corporations, governments, and interna-

tional organizations that produce annual reports, databases, fact sheets, and other grey material. These media now contain an enormous brew—some of it once considered sensitive or privileged.

Another change lies in searching and using the information. The techniques are becoming more alike and standardized. In the early stages of using new technology, researchers led the way by constructing Websites and knowing how to access information because they had funds libraries didn't have. In past 5 or so years, librarians have been coming back strong and have invested in new technology because they recognize that it is the lifeline of their institutional role in knowledge generation and transfer and their library turf as information organizers. They also learned from the researchers to appreciate the grey literature and are able to apply to it new and traditional skills that researchers do not have to index and search for information their clients want.

Colaianni: It is true that the World Wide Web has made a great deal of grey literature accessible to more researchers since the source of the literature can make it directly available without being dependent upon middle “men.” Nevertheless, there is a great deal of instability (temporary unavailability) of sites on the Web. Sources appear and disappear or change their URLs. Documents appear without dates or the name and title of the person or persons responsible for preparing them. The text is modified without notice, thus producing different versions with the “same” citation information. The integrity of the content is a concern.

The availability of such literature on the Web will be applauded by those with access but not by those without, and the move from printed publications to electronic-only availability disenfranchises some, especially those in rural areas, developing countries, and less computer-literate users.

Many organizations who rush to put their documents on the Web do not give a great deal of thought to the organization,

content, and format of the material. Print publications often were seen by editors, who brought some sense to the content, but organizations may not continue to see the value in producing a finished publication before publishing it on the Web. It actually takes more planning to organize and publish an electronic-only work than it does to publish a print version, since additional thought is required about how to aid the user in navigating through screens to locate needed information.

Access to print grey literature remains a problem. Sometimes these materials can only be obtained by attending a conference where they are distributed or by making a substantial effort to identify, locate, and contact the individual or sponsoring organization that publishes them. Another issue is user education about how to use the Web and about the potential value of grey literature.

Fisher: Computer technology, particularly the Internet and associated search engines, has dramatically increased visibility of and access to such works. I personally doubt that the volume of grey literature has changed, because the volume of it depends primarily on the number of people available to generate it. While one might be tempted to argue that there is more (on a per person basis) being produced due to technology making it easier to generate, the pace of life has increased significantly, thus increasing the number of tasks available to fill one's time and decreasing time available to generate grey literature.

Q: Scientific editors and publishers stress peer-reviewed, quality material. How does the quality of grey literature fit into this picture?

Farace: The quality of the grey and published literature is being determined by its use. Designers of Websites select materials according to certain criteria. The number of “hits” tells them which material is used and which is unused. Important selection criteria

include the time and money available to place material into electronic or print media. If a particular resource is not used, then time and money will not be invested in maintaining its existence on the Internet.

A researcher will look at both the grey and published literature to find the maximum amount of relevant material on a particular topic. Users must evaluate the search result, whether peer-reviewed or otherwise, just as they do printed material. Use of information demonstrates its value.

Colaiani: Some of the issues discussed above address quality of the grey literature. "Use" does not seem to be a good measure of quality. To make an analogy, the most heavily read newspaper is not necessarily the paper of the highest quality. From a research perspective, the most critical problem vis-à-vis quality is that much of the grey literature is not peer reviewed or refereed in any way. There is a need for documentation to indicate under what conditions and with what study and expertise a document was prepared. NLM feels strongly that publications should indicate the author, title, publishers, date, and something about the author's qualifications.

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Fisher: The key phrase here is "quality material". I do not think it is useful to use the word quality when discussing peer-reviewed papers and the grey literature. Peer-reviewed papers by definition are considered quality reports, else they would not be published. However, the historical record contains examples of peer-reviewed papers later shown to be flawed, wrong, or fraudulent. Grey literature, on the other hand, probably contains information that had been peer-reviewed and rejected as well as information

never formally reviewed. The historical record contains examples of theories and findings that did not fit the scientific dogma of the day and were not accepted for publication in prestigious scientific publications of the time. Such works remained part of the grey literature for years before the rest of the discipline had progressed far enough that the intellectual leap could be reported in the approved fashion.

Q: What is the role of grey literature in the biological and biomedical sciences?

Farace: Historically, grey literature was significant in horticulture and agriculture because of funded programs in developing countries, especially in Africa and Latin America, and it is still important today. The prevalence of grey literature depends on the "affinity" of the user community. Organizations decide what to place on home pages; the American Medical Association, for example, may use only peer-reviewed publications. Others may legitimize grey literature or a mixture of both grey and black/white material.

A researcher in biology and medicine, as in other fields, probably searches more than 1 domain. According to a 1993 survey carried out among grey-literature conference goers, only publishers stated that production of literature was their sole task. The other respondents produced material, some of it grey, because an individual or group wanted it. The publishers had a single affinity with literature; namely, they published it, for which they were gainfully employed. Other professionals also are involved in publishing grey literature, but this is not their primary task. They are often referred to as corporate authors rather than publishers. Those in this group, which includes librarians, documentalists, and information intermediaries, have a multiple affinity with grey literature. Often their interest is not shared by their colleagues, and they are not compensated commensurately for the time and expertise they invest in grey literature-related tasks.

Colaiani: The grey literature has been most useful in fields such as health services research, standards and guidelines, health policy, health economics, public health, health activities in developing countries, environmental health, military medicine, and emerging technologies. Health policy is especially important since committee reports are useful in this field. Grey literature also appears to be a fertile source for historians, especially social historians. It is to be hoped that those interested in grey literature will help the creators bring some bibliographic control to the "publications" to help ensure that researchers can find them, identify them, and understand the rigor with which the publication was created.

Fisher: I believe the peer review process yields an identifiable body of literature which is very, very helpful, particularly to those seeking information outside of their area(s) of expertise. When I read such a paper, I read it with a comfort level I do not have with the grey literature to which I look for serendipitous insight and other bits and pieces which I might wish to follow up.

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