# Who Knows? Who Wants to Know? Defining Japanese Studies in the 1990s: Audiences and Constituencies

# Patricia G. STEINHOFF

University of Hawaii

Who Knows? Who Wants to Know? These two simple questions allow us to look at Japanese Studies as a flow of information or, more broadly, knowledge that passes between two interacting parties. The Japan specialist stands at the fulcrum of two of these information flows, first on the receiving end, as the person who wants to know about Japan and pursues the answers through research; and second, as the person who knows about Japan and transmits that knowledge to others. In the first segment of this two-part article, subtitled Changing Audiences and Constituencies, I will explore recent changes in the interactions between specialists who know about Japan, and the expanding audience of people who want to know about Japan.

### **Defining Japanese Studies**

For the past two years I have been working with the Japan Foundation and the Association for Asian Studies to produce a new edition of the *Directory of Japan Specialists and Japanese Studies Institutions in the United States and Canada.* The purpose of the directory is to make available basic information about Japan specialists and institutions that are involved in Japanese Studies, but to a certain extent, the directory defines these categories by what it includes or excludes. I do not want to exaggerate the importance of this directory as the bluebook of Japanese Studies in the United States, but rather to share with you how the immediate and tangible problem of what should be in the directory has raised for me some more basic intellectual questions about the nature of the field and how it is changing.

Before any definitions can be applied to individual cases, there has to be a pool of potential cases, and some way of locating them. In the United States there is no national association of Japan specialists to which everyone belongs. If there were, even though the boundaries of that fictional association would also be problematic, the directory might simply be its membership list and there would be no great need for the directory project. In the absence of such a comprehensive voluntary association, the directory project has had to cast its net widely across the mailing lists of all the known intellectual networks and institutions with which Japan specialists were associated. The core list was the Association for Asian Studies' large membership list, supplemented with a number of other lists from regional Japan

seminars, disciplinary or thematic interest groups related to Japanese Studies, and the mailing lists of several academic journals. All of these people received the directory questionnaire.

One might think that the simple solution for the directory is just to include everybody and everything that comes back from these questionnaire mailings, but that does not solve the problem. First, there is some requirement of truth in advertising. The content of the directory ought to bear some resemblance to what it purports to be, a source of information about certain kinds of professional expertise and the institutions that offer it; however, a lot of material finds its way into the directory database that would not meet most criteria for inclusion in the published directory.

Second, there is some general agreement about who is or is not a Japan specialist, and what is, or is not, a Japanese Studies institution. As with most social phenomena, it is not difficult to define the mainstream of Japanese Studies. There is high agreement about both the definition and the cases to which it applies. But the edges are never as clear-cut as the center. Problems arise about how far to stretch the definition to include cases that only marginally meet the established standards. Worse yet, the definition itself is contested by cases that clearly do not fit the established criteria, but seem to have some other claim to inclusion. I have received numerous letters and comments from my colleagues about people who should not have been in the 1989 directory, and these are generally the same cases that our editorial committee agonized over. While our policy decision to be inclusive rather than exclusive might not please everyone, we did agree on what was problematic. Within that gray area, judgments inevitably have to be made in order to maintain the integrity of the enterprise.

Since most of my academic research on Japan concerns the way the Japanese state enforces — and thereby defines — the limits of its political and social tolerance, I am particularly sympathetic to the cases on the margins, and recognize their significance as harbingers of change. Let us look now at how such gray areas in the directory project point to real changes in the nature of Japanese Studies.

# Geographic Borders and the Constituency of Japan Specialists

There may have been a time when the term "Japanese Studies in the United States" was perfectly straightforward, but that time is long past. When we were first approached by the Japan Foundation in the mid-1980s to do a Directory of Japan Specialists in the United States, the Americans involved persuaded the Foundation that there was so much overlap between Japanese Studies in the United States and Canada that it made more sense for the directory to encompass both. Our concern was that the directory encompass the actual intellectual networks of American Japan specialists, because we envisioned it as a valuable internal resource for our own communications.

The overlap in intellectual networks between the United States and Canada was simply a hint of problems to come. In the 1989 directory, there were many Japanese nationals listed who were employed as Japan specialists in the United States or Canada. There was never any question about the inclusion of these individuals. Now, five years later, some of them have returned to Japan. On the surface they are no longer Japan specialists in the United States or Canada, although they may be publishing and participating in other intellectual activities in North America. Similarly, the 1989 directory included a fair number of American and Canadian Japan specialists with addresses in Japan. At that time, we presumed that they were in Japan temporarily. By 1995, however, a substantial number of American and Canadian Japan specialists have taken regular employment positions in Japan. Some teach at Japanese universities, while others are employed by Japanese or foreign companies. Many of them remain very active in North American intellectual networks concerned with Japan. The same kind of interchange is now taking place on a smaller scale between North America and Europe, and also with other countries of Asia.

In short, the geographic boundaries of single countries no longer define the perimeter of Japan specialists' spheres of activity in a stable way. Japanese Studies is truly "In the World" as the title of this conference asserts. We can make up arbitrary rules about these matters to determine who belongs in or out of a published directory, but we cannot ignore the real-world consequences of this development in such areas as employment and research support. The internationalization of Japanese Studies also affects the very nature of research. If we peek into the future by looking at the current doctoral students in Japanese Studies at North American institutions, it is clear that students from all over the world are now participating in Japanese Studies in the United States and Canada. Likewise, Americans specializing in Japanese Studies can now be found studying at academic institutions in Japan, Canada, and Europe. Fully ten percent of the doctoral dissertation fellowship applications reviewed by the Japan Foundation's American Advisory Committee in 1994 were "cross-border" cases of one sort or another. To the extent that there are distinctive differences in research style between Japanese, Europeans, and Americans, they result from differences in the form and content of graduate education, rather than from Nihonjinron, Yoroppajinron, or Amerikajinron. These differences in research approach are not likely to disappear in the near future, but they should become less closely linked to the national identity of the individual and more a function of that individual's unique career of training and experience.

Seen in this light, Japanese Studies in the United States can no longer be comprehended simply as a count of the Japan specialists who happen to be physically resident in the country when a survey is sent out. It must encompass on the one hand the impact of American-style Japanese Studies training and research on those who experience it, and on the other hand, the ways that the study of Japan in the United States is enriched by the continuing participation of scholars with other kinds of intellectual experiences.

# Disciplinary and Occupational Heterogeneity of the Constituency

The same ambiguity affects the boundaries between disciplines, which is why I keep spilling over into Japanese Studies in general, although I am dimly aware that the boundary of this discussion is supposed to be the social sciences. Japanese Studies is by definition an holistic approach to Japan that cuts across disciplinary lines, and I would contend that much of the achievement of American Japanese Studies in the postwar era arises from the fusion of social science knowledge and insights with the humanities. Moreover, despite the fact that in the contemporary United States Japan specialists in the social sciences are practically in a state of siege within their own academic disciplines, the growing disciplinary and occupational heterogeneity of Japanese Studies in general can be attributed largely to the penetration of social science knowledge and insights about Japan into new areas.

Twenty-five years ago in the United States, a Japan specialist was almost by definition an academic, and most likely either in history or language and literature. There were some social scientists (assuming you assign the historians to the humanities), but they had to stand very close together to be visible at all. In the professional schools there were a handful of lawyers and a doctor or two with Japan expertise, but virtually no one in business administration. The idea that someone in the hard sciences or engineering might be a Japan specialist was simply absurd. During the 1980s Japanese Studies broadened to encompass more academic disciplines and professional fields within the universities, and began to attract more students who did not intend to become the academic clones of their professors. The same economic forces that propelled these changes within the academy were also producing new kinds of Japan specialists outside it. Academic Japan specialists acknowledged these newcomers very reluctantly, because what they knew was outside the traditional purview of Japanese Studies, while what they didn't know was readily apparent — like how to read and write Japanese.

The 1989 directory reflected this gradual shift. Nearly a quarter of the entrants were employed outside of academics, primarily in the professions of business, law, and diplomacy, or as writers, translators and interpreters. This was the gray area of the 1989 directory, and each potential non-academic entry was scrutinized for evidence of real expertise on Japan. The Japanese expertise of translators and interpreters was not in question; the only surprise was how many people were working independently in these fields. The entries of businessmen and lawyers were more difficult to evaluate. The language question we asked in the 1989 directory was perfunctory and did not distinguish either different language skills or the degree of proficiency, so we could only note whether the person claimed any knowledge of Japanese. We looked carefully for evidence of substantial work and living experience in Japan, and for publications or other specific professional achievements related to Japan, and were sufficiently persuaded in about half the cases. However, for the 1989 directory we still readily dismissed the claims of persons in scientific and technical fields, whose expertise did not seem sufficiently cultural to qualify as "Japanese Studies."

By 1995, the non-academic gray area of the 1989 directory has become an established part of the field. This time we could readily interpret the professional credentials and accept the claims of a businessman or lawyer or stockbroker's expertise on Japan. We now appreciate the need for such knowledge, and have become more familiar with it from our professional

school colleagues in the universities. The new gray area for the 1995 directory is precisely the technical and scientific fields that seemed so clearly outside the purview of Japanese Studies just five years ago. It is these entry forms that are now being scrutinized carefully to distinguish between the scientist or engineer who happens to have spent a year in Japan doing essentially the same thing he would have done at home, and the scientist or engineer who has special professional knowledge about Japan because of his extensive research and consulting experience there. What is distinctly Japanese about this knowledge usually involves phenomena in the domain of the social sciences — something political, economic, or social — in combination with something so highly technical that scientific or professional training is necessary either to understand it, or even more basically, to gain access to the sites where it may be observed.

Further evidence of this gradual expansion and diversification of expertise on Japan comes from the long list of specializations that forms the centerfold of the directory questionnaire. The new fields that respondents had to write in on the 1989 questionnaire because they weren't on the coded list turned out to be the cutting edge topics of the early 1990s. Most of them had become sufficiently mainstream that they were added to the coded list for 1995. The write-in responses of 1995 similarly offer clues to where Japanese Studies will be headed over the next five years. Although they have not yet been analyzed in detail, the write-ins include more subfields in business and economics, law, and social sciences, plus sub-categories related to women in several subject domains.

Fundamental to this expansion of the disciplinary and occupational range of Japan specialists is the recognition that one can be a genuine specialist on some aspect of Japan, with a high level of expertise that has significant market value and constitutes a real contribution to knowledge, without having the extensive language and area training that have been de rigeur for American Japan specialists during the past forty years. This is an heretical statement from an avowed champion of Japanese language and area studies, and I have come to it with great reluctance. If we look more closely at how and why these new specialists can make a valid claim to professional expertise without meeting what have heretofore been the basic requirements, we arrive at the problem of the relationship between the constituency of Japan specialists and the audience for Japanese Studies. It goes without saying that the reason for the expansion of Japanese Studies into these new areas is the high economic value that such information now holds, and the fact that academic Japan specialists in the regular academic disciplines are unable or unwilling to meet the demand for such information. But if we stop there we will miss the point. We need to look more closely first at how the audiences for Japanese Studies have expanded and diversified, and then see how the demands of these audiences have altered not only the scope of Japanese Studies, but the way that wider range of knowledge is transmitted.

### Expansion of the Academic Audience for Japanese Studies

The standard audience for Japanese Studies in the postwar United States has been students at the post-secondary level, who take courses at colleges and universities that are taught by Japan specialists. The size and scope of that student audience are only partly determined by direct student demand. They result primarily from a very complex interaction between academic policies regarding the curriculum, the availability of funds to hire Japan specialists, the willingness of academic departments to hire them, and the availability of specialists who meet the academic requirements of the positions. All of these issues are beyond the scope of this paper, but they must at least be acknowledged because they are deeply embedded in the whole question of who knows about Japan and who wants to know.

The directory project and several of its predecessors have tried to estimate the size of the student audience for Japanese Studies in the United States by counting the programs and courses offered by academic institutions. For the 1989 directory, finding Japanese Studies institutions seemed to be less problematic than finding the pool of specialists. The institutional entry forms were sent to all known academic programs in Japanese Studies. When the 1989 directory was produced, however, we discovered that in addition to the surprising number of specialists employed outside of academics, many of the academic Japan specialists were employed at colleges and universities that were not on our institutional list of Japanese Studies programs. We added a list of these "other institutions" with resident Japan specialists to the directory, but had no way of knowing whether they offered any courses or program in Japanese Studies.

Since we had clearly cast our institutional net too narrowly, for the 1995 directory we tried a different strategy. The project purchased a mailing list of all the colleges and universities in the United States and Canada, and sent the institutional questionnaire to all of them in the hope that it might get passed along to the right person or program office. Although this produced a high rate of non-response, as we expected, it also succeeded in bringing into view a much broader range of institutions that are now offering courses in Japanese Studies. Some of these programs consist of a handful of language or area courses taught by one or two faculty members. They pale in comparison to the extensive offerings at a few large universities and might easily be dismissed, until we remember that in earlier surveys of Japanese Studies in the United States, that was the scale of the largest Japanese Studies programs. Because of the difference in the sampling frame we cannot make direct, global comparisons of the student audience for Japanese Studies in 1989 and 1995, but if we look at all the evidence over the postwar era, there is no question that the student audience has become much broader both in terms of the number and kinds of schools at which Japanese Studies courses are offered, and in terms of the number of ordinary students — as opposed to majors or budding Japan specialists who get some exposure to Japan in the course of their undergraduate studies.

There has been less expansion at the graduate level because of the constraints of library

resources, student support, and the critical mass of faculty, but the general trend is in the same direction. Whereas in the late 1960s and early 1970s there were less than a dozen institutions with major graduate programs in Japanese Studies receiving foreign language and area studies fellowship support from the US government, now there are two dozen solid programs competing for essentially the same pool of fellowship support. There are not only more students in these Japanese Studies graduate programs; there are more students floating around the edges of the Japanese Studies programs pursuing unusual combinations of disciplinary and professional degrees with some kind of Japan focus.

Thanks to undergraduate language programs, study abroad, the JET program, and family opportunities to live in Japan, many of these students come to their courses already fluent and even literate in Japanese. They create formidable competition for those who struggle along on college language classes alone, and they make very different sorts of educational demands on their instructors. In few other courses do instructors have to pitch their course material simultaneously to students who can barely find a country on a map, and to those who have lived there longer and more recently than the instructor. Students with a great deal of experiential knowledge can be a tremendous resource, but they raise new questions of who knows and who wants to know.

#### Growth of Non-academic Audiences for Japanese Studies

The growing number of Japan specialists employed outside of academia attests indirectly to an expansion of the non-academic audience for Japanese Studies in the United States and Canada. More direct evidence comes from the survey that we have carried out in conjunction with the 1995 directory, which asked specialists about their research.<sup>2</sup> Two-thirds of the respondents said they conducted research for academic publication and half said they did research as preparation for teaching. In addition, however, one fifth of the respondents reported that they did research in connection with their non-academic work. These responses did not simply differentiate academic respondents from those with non-academic employment, although there were systematic differences between the two groups on this dimension. About three-fourths of the respondents are currently employed as faculty at post-secondary institutions as their primary occupation. While about 80 percent of the faculty said they do research for academic publication, so did a third of those who are not employed in academia. About one in six of the respondents whose primary employment is not academic said they did research in preparation for teaching, while nearly one in seven college and university faculty members said they did research on Japan in connection with their non-academic work. Clearly there is a blurring or overlapping of roles and audiences here that may be sorted out when we examine secondary employment, a task we leave to a subsequent paper.

A second question asked more specifically about the audiences for research.<sup>3</sup> About half the respondents (52%) reported that they direct their research to an audience in their discipline, and nearly 40 percent (39.4%) said their audience was Japan specialists. A quarter

aim at a student audience. In addition, nearly a quarter direct their research output toward a general audience, while 10 percent do research for private clients and 6.6 percent provide research for governments. Here, too, one might expect a sharp division in research audiences between Japan specialists whose primary employment is in academic or non-academic settings. One might predict that academics would perceive their research audiences to be members of their discipline, Japan specialists, and students, while non-academic Japan specialists would direct their work toward the general public, and government or private clients. Although there were systematic differences in response level along these lines, there was also a surprising amount of crossover.

The percentage of specialists doing research for private clients is worthy of special note because it reflects so directly a demand for highly specialized information, or tailored knowledge, that is driven by the needs of the audience. All research presentations are tailored to the specific audience, and this assumption underlies the survey question itself. In most of the other forms, however, there is a certain broadcast quality to the presentation. The specialist has some knowledge to impart and offers it to an audience on a take it or leave it basis, which gives the specialist at least the illusion of independence. By contrast, a private client commissions research to meet specific needs, presumably either because the information is not readily available without the specialist's research input, or because the client wants proprietary control over it. While I do not want to over-emphasize the difference, the fact that one in ten Japan specialists does research for private clients suggests a market demand for knowledge about Japan that departs substantially from the purely academic model of knowledge that is created for its own sake and may be of no practical use whatsoever.

# Research Output and Specialized Audiences for Japanese Studies

Another strategy for examining the audiences for Japanese Studies is to examine what material is set out for these audiences, and how they find it. While Japan specialists with active research networks usually find out about new research through informal channels, the external audience for research in Japanese Studies published in English must rely on the standard information location methods of the American library system. Materials in Japanese Studies are unusually difficult to locate for two reasons: first, because some of the work that is most highly regarded among specialists appears in edited volumes that are indexed by book title and author but not by chapter author and chapter title; and second, because the work that appears in periodicals is widely scattered across a range of publication outlets reflecting many different disciplines and topics. Moreover, very little of the research in Japanese Studies appears in periodicals that are in any way marked as being about Japan. Most of it turns up unexpectedly in journals that reach either a disciplinary or topical audience or a generic international studies audience. In our survey, the specialists themselves had difficulty saying where they submit articles. About a third said they would send an article to a journal in their own discipline, another third were divided about equally between sending it to a Japanese

Studies journal or to an international and comparative journal, while the remaining third were uncertain and said it would depend upon the content.

If the researchers themselves are not certain about where their work should appear, it is not surprising that the audience has difficulty finding it. This is not to say that they can't find anything. The problem is that the standard library search technique using CD-ROM bibliographic databases turns up a peculiar assortment of material in rather overwhelming quantities. Using "Japan" or "Japanese" as the search criteria and publication dates of 1988-1992, the Sociofile database contained an average of 200 pieces per year; PAIS (Public Affairs Information Service) an average of about 475; ERIC, the education database had about 230 entries per year; the Social Sciences Index about 850 entries per year; and ABI Inform, a full-text database covering business and management journals, a whopping 1300 plus per year. If you have wondered why your students were always citing Business Week as an academic source, it is because PAIS and ABI Inform heavily index the popular press. By contrast the more academic humanities index averaged a little over 100 items each year and the MLA International Bibliography, covering literature and language materials, carried about 275 items per year.

As these figures reveal, when non-specialists use the normal methods for finding material about Japan in the library, their searches produce an overwhelming array of material of widely varying quality, largely in the social sciences and current events. There is some overlap in the material indexed in the various databases, but I do not yet know how much, as we have been completely overwhelmed by the more than 13,700 items our simple search generated. It is a sure bet, however, than all the Japan specialists in the United States and Canada, working day and night, have not produced anything like 13,700 publications in four years.

The 1,257 Japan specialists who responded to our detailed survey question about all of their publications related to Japan have published a total of 5,140 academic journal articles in their entire careers, plus another 2,175 articles in edited volumes that would not appear in the major bibliographic databases at all, and 1,315 research articles in other periodicals, some of which may be indexed in bibliographic databases. In contrast with this output of scholarly articles, the same sample of Japan specialists has also produced a total of 2,137 articles for a general audience, nearly ninety percent appearing in periodicals and the remainder in edited volumes.<sup>5</sup> Even if we inflate these figures from the survey sample by 25 percent to estimate the total output of all Japan specialists included in the directory, the estimated lifetime production of both scholarly and general articles by most of the Japan specialists in the United States and Canada roughly equals the four-year output of material indexed in standard bibliographic databases.

If we ask "Who Knows?" in this context, the clear implication is that when non-specialists look for material about Japan, most of what they find is written by other non-specialists. There may be a citation or two to work by academic Japan specialists, but even these citations concentrate very heavily on a small body of basic studies written decades ago. It is also apparent that few Japan specialists, and fewer still among academic Japan specialists, are

writing for the general audience that has so greatly increased its interest in Japan during the past decade.

#### Interaction Between Japan Specialists and Their Audiences

We have looked at separate lines of evidence showing changes in both the constituency of Japanese Studies specialists and the audiences for Japanese Studies in the United States and Canada. The next step is to try to reconstruct the interaction between constituency and audience, and sketch out a model of how this interaction has changed over time. The changes seem to me to reflect two process: first, professionalization, and second, specialization or differentiation. The process of professionalization transformed Japanese studies in the postwar United States from a tiny club of individuals with eclectic experiential knowledge about Japan, whose constituency and audience were identical and fairly uncritical, into an academic certification operation that produced credentialed Japan specialists for academic employment in an expanding market. With professionalization came a bifurcation of audiences: on the one hand, the constituency of certified professional Japan specialists addressed a critical internal audience of other specialists, who demanded higher and higher standards of research output from their graduate students and peers. On the other hand, these credentialed Japan specialists addressed daily an uncritical audience of undergraduate students and to some extent the general public, who knew very little about Japan. The pressures of the academy and the influx of graduate students have pushed many of us toward ever-greater professionalization, to the extent that we have lost sight of the needs of the non-academic general audience.

The second process of specialization and differentiation has also been driven by demand from certain parts of the audience, but in this process both the constituency of Japan specialists and the audiences for Japanese Studies have split. As it expands, the internal audience — the constituency itself — of Japan specialists has divided into disciplinary specializations, each of which makes higher and more specialized demands on the research output of its members. For social scientists and now also in the humanities, these demands pull Japan specialists into disciplinary debates that make their work less accessible and less relevant to the larger interdisciplinary community of Japan specialists. At the same time, as knowledge about Japan has lost its irrelevance within American society, the external audience for knowledge about Japan has also become more specialized. These specialized external audiences demand certain kinds of economically useful information that professional academic Japan specialists, oriented to critical and specialized academic audiences and uncritical undergraduate audiences, are not well-equipped to provide.

I submit that these external audience demands have led to the emergence of new types of professional Japan specialists largely outside the institutions that were created to train and certify professional academic Japan specialists. These new specialists resemble the original postwar cohort of Japan specialists before professionalization, in that the basis of their expertise is often eclectic experiential knowledge of Japan. However, they also build their

knowledge through secondary research in the English language literature about Japan that is produced by professional academic Japan specialists. In this sense they are part of the general audience for academic Japanese Studies, even as they present themselves as professional Japan specialists to a different specialized audience.

The implication of these changes is that professional academic Japan specialists no longer have a monopoly as the only people "Who Know" about Japan and must now acknowledge a broader constituency of Japan specialists who know very different kinds of things about Japan. Yet academic Japan specialists also have a new role as the suppliers of basic academic research, and the teachers of basic skills, including language and social skills, that are now relevant to a broader and more demanding set of audiences. Thus our position has become less exotic and more like that of normal academics in the humanities and social sciences, who control neither the information in their fields nor the uses to which it is put.

#### Notes

- The original directory was published in 1989 as Japan Foundation, Directory of Japan Specialists and Japanese Studies Institutions in the United States and Canada. Japanese Studies in the United States Part II, Japanese Studies Series XVIII, 2 vols. Ann Arbor: Association for Asian Studies, 1989. The new edition was published in 1995 as Japan Foundation, Directory of Japan Specialists and Japanese Studies Institutions in the United States and Canada. Japanese Studies Series XXIV, 3 vols. Ann Arbor: Association for Asian Studies, 1995. When describing findings of the two studies this article will use the dates 1989 and 1995, referring to the publication dates of the two editions of the directory, even though the data in each case were collected a year or two earlier.
- 2 There are 1,853 Japan specialists included in the 1995 directory. The study received 1,406 responses to the survey section of the questionnaire (defined as material that was not printed in the directory entry), including some graduate students and other persons whose entries were not selected for the directory. The data reported here are restricted to survey responses from persons who were included in the directory. Not all directory entrants completed the survey section of the questionnaire, and some respondents did not complete all questions. The usable number of cases for this question was 1,147. This was a multiple-response variable on which respondents could select as many answers as they wished, and the mean number of responses was 2.26. Percentages are based on the number of respondents, not the total number of responses.
- 3 This, too, was a multiple response variable, with a usable sample size of 1,040, on which the percentages are based. The mean number of responses was 1.57.
- 4 PsycLit, the psychology database, also contained over 800 entries per year, but most of them were totally irrelevant since the search picked up any psychology paper with an author living in Japan. These are not included in the totals.
- 5 This sample of Japan specialists comprises about three quarters of the specialists included in the directory, divided proportionally among academics (76%) and non-academics. Not surprisingly, the academics were responsible for 86% of the scholarly publications and just under half of the articles for a general audience. Books by Japan specialist are not included in these calculations, because the comparison is to the sorts of materials that appear in bibliographic databases, which index the periodical literature.