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# Specialization, Territoriality, and Jurisdiction: Librarianship and the Political Economy of Knowledge

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## ABSTRACT

RECENT WORK ON INTERDISCIPLINARITY and knowledge growth has produced a variety of models to capture a process of bewildering complexity. Prominent among these are organic models, which compare knowledge growth to biological processes (e.g., hybridization), and spatial models, based on various suggestive geographical parallels. Part of the background of the dynamic formation, interaction, and dissolution of disciplines is a broader and perhaps more pervasive social process that particularly affects the knowledge-intensive occupations in the advanced industrial societies and indirectly affects all forms of work. This process is presented as an opposition between the impulse to integrate and consolidate across fields and the impulse to discover and perhaps colonize new knowledge domains in a manner resembling territorial conquest, expansion through annexation, and resulting claims to exclusive jurisdiction. This article draws on some key ideas of recent social theory, the sociology of the professions, and other sources to outline librarianship's current situation.

## INTRODUCTION

The general orientation of this article is the idea that human activity is, roughly speaking, ecological—a process that involves interaction between social groups and environments. Because current use of the term “ecology” strongly connotes the physical world, it is useful to point out that it is descended from an ancient Greek word (*oikeos*) meaning “household” in the broad sense of a human settlement and thus a complex interweaving of fields of social action. The verbal forms suggest inhabiting,

settling, governing, controlling, managing, and similar activities, and are applied to organizations and states as well as to smaller social units like families and other kin groups. While not excluding, and indeed including, a part of the physical world, this notion thus focuses on the social environment. This article emphasizes that part of the social environment where the production and distribution of formal knowledge occurs. Its domain, shared with the principal domain of the other articles in this issue of *Library Trends*, is the organization of formal knowledge.

#### INTEGRATION, SPECIALIZATION, AND THE GROWTH OF KNOWLEDGE

Recent work on interdisciplinarity has made much progress in trying to understand the often overwhelming complexity of contemporary knowledge growth (Klein, 1990; Dogan & Pahre, 1990; Easton & Schelling, 1991), even though the advances seem more striking in understanding theoretical work than problem- or policy-oriented research (Easton, 1991, pp. 14 ff.). By undertaking the difficult work of describing, classifying, and organizationally mapping patterns of contact among disciplines, this work provides a kind of ethnography of knowledge production, which in turn provides a number of essential starting points for model building and theory construction.

Julie Thompson Klein's (1990) ambitious and synoptic overview of this very complex set of problems provides some hope that some of the better-known disadvantages of specialization may yet be overcome. And indeed one of the abiding themes in the literature on interdisciplinarity is the hope of integration which haunts it (Easton, 1991, pp. 16-18). If many natural scientists have either abandoned that hope or never entertained it in the first place, librarians and humanist scholars keep it alive; social scientists, depending on their situation, fall somewhere in between. The common hope of controlling the literary output of the many fields of learning is reflected in the early modern quest for a universal bibliography (Chartier, 1991), in the first efforts at modern knowledge classification developed by Francis Bacon (1606) in *The Advancement of Learning* and later applied to book collecting by eighteenth-century figures like Thomas Jefferson (Gilreath & Wilson, 1989), and underlies the application of these schemes to book and library classification in more recent times.

In the United States, this hope of unity was pursued with some energy and enthusiasm at least through the first half of the twentieth century. Perhaps it was energized by the reform-oriented progressivism that permeated American life between 1880 and 1920 (Wiebe, 1967). The post-World War II period, on the other hand, has not been as kind to the movement. In the 1920s and the 1930s, American thinkers like John Dewey, George Herbert Mead (from the pragmatist tradition), and others like Otto Neurath (from the positivist side) developed "universal" and "systematic" theoretical schemes intended for a variety of disciplinary con-

texts (Fuller, 1988, pp. 6-7). This integrative impulse was also evident, famously, in the utopian projects of pedagogical visionaries like Alexander Meiklejohn and Robert Hutchins, who urged the abandonment of narrow specialization and the adoption of broader and more ecumenical views in higher education (Winter, 1991).

Somewhat later, Talcott Parsons, though nominally a sociologist, began intellectual life as a political economist, co-founded a multidisciplinary program of social relations, and developed a broad conceptual framework for the explanation of social action across the disciplines embracing sociology, social psychology, anthropology, economics, and political science. And throughout the 1950s, there were ambitious efforts at integration from behaviorism, Marxism, systems theory, semiotics, structuralism, and other quarters (for an overview of the "integrative process," see Klein, 1990, pp. 188-89). As Easton (1991) has pointed out, at different times, teamwork, general theory, and general methodology—and, he might have added, bibliography, classification, and the study of organizing information for retrieval—have been enlisted in the cause of integration and synthesis (pp. 16-20).

#### SPECIALIZED ADVANCE, TERRITORIAL IMPULSE, AND INTELLECTUAL COLONIALISM

But it is specialization, not integration, that seems to prevail, at least for the present; the energies of many able scholars seem devoted to what Easton (1991) has called, in a very apt phrase, the Cartesian impulse to endlessly decompose subjects into ever finer analytical domains (p. 12). This may be more true for the industrialized West than for other parts of the world. Easton (1991), for example, argues that scholarly work in China is not nearly as specialized as research in the United States, the United Kingdom, and Western Europe (pp. 8-9). And some European exceptions should be noted, as the protests against specialization in papers by scholars as diverse in political orientation as Helmut Schelsky (1987, pp. 119-37) and Theodor W. Adorno (1987, pp. 232-47) indicate. Whether this is because the logic of inquiry itself in some way mandates an increasing spiral of specialization, or because all scholarship seeks to emulate natural science models, or again because ours is an age of radical pluralism and differentiation, are questions of some interest and difficulty. In any case, "the magnitude of achieving synthesis has been underestimated" (Klein, 1990, p. 116).

Perhaps for this reason, the models following the development of specialization are particularly useful, if only because it is now the dominant pattern of research. Intriguing examples are the organic models, which compare intellectual fields to biological organisms and species produced by a kind of "hybridization" process (Dogan & Pahre, 1990). Much of the appeal of this model is derived from its comparison of

intellectual movements to processes found in the study of the ecology and evolution of plant and animal species. Reversing the original root relationship between the "ecology" of human life and the animal world, it locates a specialized form of human intellectual activity in a larger biological universe.

Another promising family of models uses spatial, regional, and geographic concepts instead of organic ones. For example, Berger (1972) compares disciplinary networks to archipelagoes and islands (Klein, 1990, pp. 40 ff.). Price (1981) compares the established intellectual domains of elite scholarship to continental masses with characteristically dense cosmopolitan centers of privilege; the newer emerging fields, like their counterparts in frontier societies far from the fronts of tradition, are thinly populated intellectual outposts where intellectual fortunes can be made overnight and many languish in obscurity. Garfield and Small (1985), seeking to map the "geography of science," use citation data to plot proximity, level of activity, and possibly the influence between and among groups of researchers staking out intellectual territories.

There is no inherent opposition between the two approaches, and they might be combined to form a third that integrates the two types; after all, organism and environment mutually imply one another. It is not possible to do this here, but it is useful to suggest that what the organic and the spatial approaches have in common is the pursuit of acquisitive specialized advance; they are territorial, competitive, and expansionist. In both cases, the underlying idea is to make and reinforce implicit jurisdictional claims analogous to the territorial claims that both human and animal populations make to ecological niches. They share, in other words, a general pattern of exploiting available resources to produce new life forms and new settlements, and thus to create, occupy, populate, and colonize new intellectual regions. This is probably especially true in the newer fields, which lack older jurisdictional foundations. But it is particularly true in any field that has a comparative dimension (for an especially clear example profiling comparative literature, see Loriggio, 1995).

In looking at the intellectual response to disciplinary growth, Klein, in this issue of *Library Trends*, sees a rhetorical duality: there are, on the one hand, "metaphors of place—turf, territory, boundary, domain"—but also "metaphors of connection—network, web, system, field, overlap, interconnection, and interpenetration." It may be useful to mention this here because, although my own argument obviously places a strong emphasis on the first of these and suggests that specialization works against integration in any systematic way, it does give rise to its own characteristic style of connection. Thus if integration seems substantially eclipsed by the movement of territorial advance, there is still a kind of mutual interdependence that provides some sense of interdisciplinary unity (to explore this in any detail is not possible here; we should point out, however,

that the general idea is based on Durkheim's idea that mechanisms of social cohesion depend on the complexity, differentiation, and specialization of function found at different stages of social evolution). Advanced industrial society shows a high level of differentiation and thus a correspondingly low level of common culture, but there are durable social bonds formed by the fact that specialized roles promote a kind of integration through interdependence (see Kopytoff, 1988, pp. 12-13).

#### GLOBALIZATION, CULTURE FLOW, AND THE EMERGENCE OF TRANSNATIONAL CULTURAL SPACE

The age of the nation-state, we are told, is over. And not only the state, which has served since the early modern period as a kind of central underlying framework in charting the diffusion of culture, is showing signs of obsolescence; the traditional categories of language, class, gender, ethnicity, and region still exist but are now overlaid with an emerging world order that is much more mobile, fluid, and shifting. The older national boundaries no longer mark their peripheries. "Cultural transactions between social groups in the past have generally been restricted, sometimes by the facts of geography and ecology, and at other times by active resistance to interactions with the Other..." (Appadurai, 1990, p. 1). In place of an earlier isolation that, for a variety of reasons, prevented much of the contact among social groups that occurs much more routinely today, a labyrinthine welter of "public cultures" now spreads across large parts of the globe (Appadurai & Breckenridge, 1988). Capital, once largely, if not exclusively, invested in a pattern that reinforced these traditional structural patterns, now flows much more easily across increasingly more permeable boundaries.

In this situation, some of the more dramatic changes are in patterns of migration, employment, and trade. Everywhere, people and peoples are on the move, reflecting, among other things, the increased mobility of capital—for just as capital seeks lower costs to maximize profits, so does labor seek a higher return on its investment of physical, social, and intellectual energies (Banks, 1986; Lie, 1995, p. 303). The result is the emergence of a richly textured, culturally pluralistic, highly unstable emerging world order at the end of the twentieth century; it is no accident that the present period of intense world economic activity is marked by volatile political activity. While for obvious reasons public attention focuses on the intense drama created by the broad picture of this human movement, our focus here is on the movement of ideas and expertise; we look to this general framework as a setting for asking how this has affected the production and distribution of formal knowledge.

As political barriers to increased movement came down in the United States beginning in the mid-1960s (Grewal, 1994, pp. 53 ff.), the increased mobility meant not only a supply of agricultural workers from Mexico

and Central America, but many different skill levels and types of labor from all over the world, including highly skilled and educated professional and technical workers in the physical, life, and health sciences (Stalker, 1994). Some of those seeking to reach the United States were from English-speaking countries (Schuster, 1994), but large numbers were from South and East Asia, where population expansion created surplus populations (Grewal, 1994; Gonzalez, 1992). Their arrival in the United States had obvious consequences for the expansion and creation of scientific knowledge in a number of capital-intensive research fields. Without their contribution, a number of areas—biotechnology, pharmacology, and computer science provide some obvious examples—would have developed much more slowly, and these developments, with their accompanying literatures and bodies of new knowledge, provided an essential impetus for growth in the fields of special and research librarianship.

But the new “diaspora,” as the worldwide movement of peoples is often called, is by no means restricted to the circulation of experts in the natural sciences. The diffusion of humanists and social scientists cannot of course match the numbers in the more technical fields, but the transformation of the cultural landscape of late capitalism in the West is nonetheless unmistakable and far-reaching. Much of this has occurred since the 1960s in tandem with the cultural revolutions of that pivotal period that forced university curricula to include the narratives of a wide range of American minority groups, it has highlighted a whole series of contested intellectual territories and emerging fields of inquiry.

In practical terms, the globalization of cultural space means an expansion in the demand for the study and teaching of the histories, cultures, and societies of the newer immigrant groups, and certainly a willingness to devote resources to collecting their literatures. And so the “Americans” whose grandparents once knew very little indeed about the Germans and the Irish and the Italians and still less about their histories, and whose parents as students in the 1960s were the first generation systematically exposed to the new literatures of marginalized minority cultures, are now in their own student years facing the necessity of understanding the trailing clouds of culture from northern India, Sri Lanka, the more populous parts of China, Korea, and Taiwan to say nothing of the Caribbean, Mexico, the northern end of Central America, and Eastern Europe at the end of the Cold War.

All of these and more play central roles in producing the globalized immigrant cultures of today, still partly rooted in the localized territories of “home” and yet at the same time so clearly abandoning them. Thus the cultures that were once the province of an academic anthropology or history based on a kind of professionalized academic tourism and a construction of native cultures as pungent and exotic contrasts to the rationalized bureaucratic rhythms of the West are now among us and rapidly

entering the mainstream of American society, where they join the earlier strains of the French, Spanish, Dutch, English, and other Western European groups that fanned out in the early modern period in search of new frontiers and new markets. The landscapes of Washington Irving, Nathaniel Hawthorne, and Mark Twain are joined by the cultural worlds of V. S. Naipaul, Anita Desai, and Naguib Mahfouz. Thus globalization offers a particular challenge to professional students of culture, as Marcus (1995) has observed about the major changes in the way ethnographers accumulate their "intellectual capital." Certainly the ethnographer can no longer appear as an explorer from the center of civilization, sent to shed the light of science on its outlying regions. For librarians, this means that the center and periphery of collectible bodies of literature are not what they were even a generation or two ago, as the intellectual capital of past epochs gets redefined as part of the spoils of Western imperialism.

This challenge to, and invigoration of, the intellectual life of the United States is certainly not unprecedented, for there have been earlier diasporic movements which brought not only an extraordinary flow of scientific talent, but also a wide variety of scholars in other fields, to say nothing of artists, musicians, and performers. The most remarkable, and in many ways the most influential, of these movements occurred between about 1930 and 1950, as thousands of European refugee artists, writers, journalists, scholars, and professors in a number of fields sought asylum in the United States, where they introduced a profound and continuing Europeanization of what had been a staunchly isolationist and proudly naïve American culture of the home-grown and the self-made (Fermi, 1968; Fleming & Baily, 1969; Hughes, 1975).

#### DISCIPLINES, OCCUPATIONS, AND THE QUEST FOR JURISDICTION

Researchers commonly complain about organizational and institutional barriers to interdisciplinary inquiry. And it is true that the departments, institutes, and the agencies that impose administrative order onto research activity can have an inhibitory effect (see Searing's article in this *Library Trends* issue). Yet, as one writer has observed, these barriers, however real, are actually superimposed upon a deeper set of constraints that issue directly from the distinct and often incompatible disciplinary subcultures that give rise to them in the first place (Bauer, 1990, p. 105). Disciplines are not merely groups of minds pursuing common intellectual goals; they are, first and perhaps foremost, social groups with distinct cultures as is suggested by the common jocular references on university campuses to academic departments as "tribes."

There is really no reason, however, to reach for similes that ironically compare post-industrial intellectuals to preindustrial hunters and gatherers or horticulturalists. Disciplines, with their differences of value, worldview, method, technique, leading ideas and theories, to say nothing

of the characteristic ceremonies, rules, norms, rites of passage, patterns of apprenticeship, and hierarchies of authority are, like any social grouping, subcultures whose attitudes, behaviors, communication patterns, and vocabularies are frequently incomprehensible and impenetrable to outsiders (Bauer, 1990, p. 112; Marcus, 1995).

A much more appropriate comparison would be to the "social fields" of Pierre Bourdieu's sociology (1969, 1973, 1981). A discipline, in other words, is an area defined by the relative positions of individuals and groups, their social networks, their dynamic interactions, and whose shifting outlines are dictated in large measure by the social, economic, political, cultural, and intellectual resources that participants bring to them as they occupy the research field (Bourdieu, 1986; Marcus, 1995). To report one of Bourdieu's (1981) more concise statements, it is "the objective space defined by the play of opposing forces in a struggle for scientific stakes" (p. 260).

The nature of disciplinary fields is manifestly intellectual, and their boundaries are at least partly traced by their characteristic forms of argument and discourse: "[A] discipline," writes Fuller (1988), "is 'bounded' by its procedures for adjudicating knowledge claims" (p. 191). Thus the "argumentation format," or template of discourse, determines in advance the kinds of issues that may be discussed and what counts as evidence, proof, justification, etc. (Fuller, 1988, pp. 191 ff.). But the boundaries marking the limits of a field are also dictated by a kind of latent territorial logic of social control. These procedures, nominally intellectual, also function as elaborately codified means for controlling access to knowledge and its use and to a wide variety of social practices.

Thus the discipline is more than an intellectual field, even though it is often exclusively represented as such in academic language, for while it is situated in a large and complex network of neighboring intellectual fields, with many different kinds of contact and interrelationships with them, it is simultaneously rooted in a larger and even more complex process of claim-staking that permeates the occupational structure of the society around it. It has an internal social organization, social networks of influence and communication, and it has dynamic relationships to many other occupations. If disciplines are engaged in a competitive struggle to stake claims to intellectual territory and occupy new niches, these claims are rooted in more fundamental claims of professional jurisdiction, claims which assert the rights of the group to a certain form of social practice and the enjoyment of its rewards. "The central phenomenon of professional life," in this view, is "the link between a profession and its work, a link I shall call jurisdiction" (Abbott, 1988, p. 20).

It is on this larger field of occupational organization that the dramas of the professionalization of disciplines are played out, as occupations seek to make and legitimate their claims to exclusive jurisdiction (Abbott,



1988, pp. 59, 87). Naturally, not all occupations will be equally caught up in the professionalization process, but professionalization has a special importance for the knowledge-intensive work of the middle- and upper-middle classes in the advanced industrial societies. In these cases, higher education credentials and special learning experiences play a critical role in controlling access to work and in legitimating the group's jurisdictional claim to the outside world (Freidson, 1986; Abbott, 1988). Thus surrounding and, in a sense underlying, the complex world of the academic fields is this larger atmospheric envelope of professional work, which Abbott calls the "system of professions." From this viewpoint, occupations and professions appear in a fashion recalling the organic models of discipline growth, as "growing, splitting, joining, adapting, dying" (Abbott, 1988, p. xiii). By the same token, however, they also appear as organized colonies seeking to define territories and guard them from encroachment; they are, to use the language of another recent sociologist of the professions, attempts to create labor market shelters (Freidson, 1986, p. 59). This very imagery, though invoked in the effort to understand professional occupations, fits well with the dynamic expansionist model of the knowledge fields.

#### GLOBALIZATION, PROFESSIONALIZATION, AND SYSTEM DISTURBANCES

The academic occupations we call disciplines are, by reason of the large-scale social transformations occurring on a global scale, in a dynamic expansionist mode. If the freer circulation of global culture creates new fields and expands older ones to a point where they might as well be new, it has problematic consequences for professional work. In brief, it exacerbates the tension between professionalism, with its penchant for "protectionism" and the opposing "free trade" emphasis of capital mobility. Increased flows of resources are of great benefit to corporate capital, which mobilizes them for short-run gains and then moves on to the next opportunity. But how are long-term investments in knowledge, expertise, skill, and judgment—the kinds of investments that use expert knowledge in problem-solving—to be justified when the flow of capital is so rapid that, in the leading fields, the cycles of product development may be as short as two or three years? Unless the worker enjoys a very well-protected luxury of specialization, it will scarcely be possible to keep up. Further, as capital-intensive specialization advances, it marginalizes less specialized forms of work, making them appear provincial and overly general by comparison. Simultaneously, of course, managerial and administrative authority appropriate general control over organizations (Winter, 1993, 1994).

Thus the globalization of capital and the resource flows which result may have some of the "system disturbing" effects that Abbott (1988) refers to in his account of professional competition and conflict (pp. 91-98).

Aside from sharp inequalities of material reward, the consequences of extreme fluidity of culture flow are particularly disturbing in the knowledge handling fields. The concept of "intensification," which has been applied to teachers and other distributors of culture (Connell, 1985, pp. 70-71), applies to librarians as well. Intensification, which has, on the surface, a beneficial upskilling effect because it exposes practitioners to wider varieties of material, ultimately undermines an occupation's ability to deliver quality by gradual increments of overloading. At some undefined point, processing the load takes precedence over adding value to the product through creative distribution.

Thus the broader picture of globalization, capital flow, and cultural production, while reassuring in some ways because they seem to counteract some of the provincialism and isolation that has prevailed for some time, presents challenges to information workers that are at the least extraordinary, and at most assume an almost Sisyphean aspect. Perhaps because librarians have been so preoccupied for so long with the issue of bibliographic control of the output of publishing, they have understandably paid somewhat less attention to challenges from occupations much closer to home than academia and publishing, the two primary sources of the informational overload. We return to this issue after sketching, in the following section, some general remarks about librarianship's role in knowledge treatment.

#### LIBRARIANSHIP AND THE ECOLOGY OF KNOWLEDGE DISTRIBUTION

Librarians sometimes function as knowledge producers, but their place in the larger ecology of formal knowledge is more accurately distributional than productive. For this reason, they generally do not come into direct competition with scholars, writers, and artists (on the distinction between intellectuals as producers and distributors, see Lipset, 1981, pp. 333 ff.). But librarians do share the distributional function partly with publishers and booksellers (Eco, 1983) and perhaps also partly with teachers (Connell, 1983, p. 245). Nonetheless, these functions are usually separated by distinct lines of jurisdiction which provide some insulation from competition. Librarians, to borrow from the ecological register of comparisons, occupy different niches even though there is an overlap of function.

But the case is otherwise with some of the newer information-treating groups, although some care is required in order to mark off some jurisdictions which are insulated from some which are not (naturally, it is from this latter group that an occupation gets serious competition). In developing a theory of the professions as an interacting system, Abbott (1988) suggests that "information professionals help clients overburdened with material from which they cannot retrieve usable information" (p. 216). But alone this is not quite enough, since within this group there

appear to be two rather distinct jurisdictions. Accountants, management engineers, statisticians, operations researchers, and systems analysts, for example, deal with quantitative information, while librarians, along with many academics and journalists, and some business specialists like advertisers, deal with information in its qualitative aspects (p. 216); the contrast Abbott is drawing here recalls the distinction between the numerical and the textual. Naturally, this distinction will not be perfect, since there are librarians and other information specialists working with both kinds of information and otherwise making recommendations based on quantitative analysis—e.g., collections librarians who use citation analysis to make decisions on the selection or retention of sources.

#### SYSTEM DISTURBANCES AFFECTING LIBRARIANSHIP

Nonetheless, librarianship has, at least until fairly recently, dominated a significant part of the qualitative range of information distribution (Abbott, 1988, p. 217), although it probably would be better to focus more specifically on the treatment of texts and their users and tighten some of the more obvious slippage in the concept of the “qualitative.” Some of the reasons for this are, as Abbott (1988) points out, adventitious: the growth of librarianship as an occupation in the United States more or less coincides with the spread of significant library collections, much of which occurs after the Civil War (pp. 217-18). So American librarians occupied some emerging cultural and intellectual territory at a very early stage, long before any competitors arrived. If librarians have not noticed some serious challenges in more recent times, this is partly because this domination has been so virtually complete. No doubt it is also because the globalizing, crisis-inducing expansionist movement of publishing amid the ever-increasing bodies of literature it produces have made it extremely difficult to keep up with the core tasks of the field and develop a general sense of historical direction.

In any event, librarianship presents a case in which a number of functions originally assigned and carried out internally have now split off into newer occupational groups which have grown so much that they are now taking over substantial parts of the old “qualitative” domain. The most dramatic example is the library assistant, whose functions originated in the more clerical end of technical services and which, thanks to automation and other trends, have now colonized much of the routine task areas of acquisitions and cataloging within libraries. Simultaneously, the core areas of professional expertise in cataloging have substantially migrated to the bibliographic utilities which now produce the catalog record that was originally the province of the catalog librarian (although it is not possible to present a detailed analysis here, the trend is evident in data collected by the Association of Research Libraries and shows that the paraprofessional group has grown much faster than the professional group).

The same trend appears in academic libraries generally (see Oberg et al., 1992, pp. 220-21). At present, this picture is clearest in technical services, but if library assistants continue to expand into other areas of work once reserved for professionals, the trend could easily appear in public services. To imagine this, picture a busy reference desk at a major facility staffed only by paraprofessionals whose function is, while not precisely to answer reference questions, to shunt or route them to a central public services authority which first provides an answer, then routes the answer back to the paraprofessional, who in turn passes the material on to the user. In this scenario, the public services "authority" functions much as the bibliographic utility does in technical services, and the reference function becomes commodified and streamlined and poured into the mold of mass production to be sold to libraries for distribution, along with the output of the publishing industry, much in the way cataloging is now. Today, in technical services departments in many large libraries, an occasional professional is required only to supervise the work of a much larger staff of library assistants; perhaps that too is the fate of the reference librarian.

But the paraprofessional case is not the only one, even if in many ways it is the clearest example of the trend toward restructuring through internal differentiation and splitting off in a process that ends with a new occupational group. In the process which Abbott (1988) likened to an organismic progression of "growing, splitting, joining, adapting, dying" (p. xiii) has been gestated not only a new presence of paraprofessional workers, but also new configurations of administrators, managers, accountants, systems analysts, computer resource specialists, development officers, and student assistants. All of these are now staking claims to various parts of the territory once rather blithely assigned to "librarians." And yet, if we retreat enough in time to gain historical perspective, we do indeed come to an age in which librarians performed most of the entire range of functions now much more widely distributed among these new arrivals.

### THE NEED FOR SPECIALIZATION

If this "system disturbance" perspective is accurate, it leads naturally to the question of how librarianship, as a discipline and occupation, might respond. There is one response, one might say at the outset, that should be avoided, however tempting it may at times seem, and that is the idea that librarians should become specialists in generality. The track record of integrative generality in knowledge production generally should warn us away from this tack and, in any case, the prevalence of hyperspecialization in knowledge production should tell us that a retreat from reality into generalism is more an expression of frustration than an attempt to come to terms with the growth of knowledge. This does not mean that librarians, information specialists, and their affiliates in the domain of

text distribution should abandon general classification or controlled vocabularies or any of the other developments of earlier periods of librarianship any more than people who drive cars should abandon bicycles; wherever possible, continued use of older tools is often the best option available.

It does, however, mean that, in a world where knowledge and culture producers, along with consumers, are very specialized, librarians and other distributors must themselves be very specialized in order to cope with some basic realities of professional work at the end of the century. First and perhaps most important, specialization is a coping mechanism for dealing with the overwhelming mass of output; by narrowing the focus, it filters out some of the flow and makes the rest easier to manage (see Wilson's article in this issue of *Library Trends*). Second, it permits the librarian to understand enough of textual form and content to be of more help to users. Deeper knowledge of content also enables the librarian to understand new knowledge from the inside and to benefit from the filtering mechanisms that experts in the field themselves use. And librarians must also be specialized otherwise they cannot hope to have any semblance of collegial contact and communication with a wide range of their user groups.

Aside from these considerations, and somewhat closer to our concern with disciplines as the intellectual expressions of occupations, specialization is also required to colonize appropriate new niches to replace the older ones that are now occupied by new groups of workers. In increasing levels of specialization, librarians can recover some lost ground by defining exclusive new jurisdictions as autonomous domains of expertise. If, on the other hand, librarians resist specialization, they invite continued and increased encroachment from two major sources: capital looking for new markets on the one hand and, on the other, from the ever-larger number of workers who find themselves more and more superfluous in the highly competitive, endlessly downsizing political economy of the late twentieth century.

There are many possibilities. Some of the more obvious, and yet among the more neglected, are specialization by subject, geographical area, and language. "Culture area" is a form of specialization closely related to both geography and language and yet clearly distinct from either which has special promise in a multicultural age. There are many areas of culture, language, dialect, and discourse that librarianship seems not to have penetrated at all, yet these define new territories and new user populations in need of bibliographic control, interpretation, and mediation. These niches seem particularly promising for building connections and social networks with a wide range of academic and research fields, to say nothing of the many specialized areas of popular taste; area and language specializations are of special importance in the human studies, which deal increasingly with the globalization of culture.

Subject specialization, though relatively uncommon before World War II, has existed in American academic libraries for fifty years. Yet it seems to have barely grasped the extraordinary advances in the specialization of knowledge occurring at a rapid pace all around it and is thus long overdue for restructuring. To look at the assignments of reference librarians and bibliographers in many academic and the larger public libraries today and the organizational structures of the professional associations they support, one would think that the only "subjects" that librarians are capable of covering in specialized depth are the most traditional and broadly defined fields that have been institutionalized by college and university curricula for much of the postwar period—i.e., physics, chemistry, biology, history, anthropology, economics, sociology, literature, art, and philosophy—along with a few others that came somewhat later, during the 1960s, like ethnic or women's or gay and lesbian studies, or perhaps environmental studies.

While there is room for development even in this crowded center, the more pressing need is for coverage and control of newer areas. Expanding on Dogan and Pahre (1990), Klein (in this *Library Trends* issue) observes that "density at the core opens up room for innovation at the margins"; yet, while we have a highly developed librarianship at the core, we have much less development at the periphery.

Aside from subject assignment, looking at professional activities like conference programming and publication, one might conclude that librarians seem almost unaware of the many hybrid disciplinary creatures now populating the intellectual landscape—i.e., fields and subfields like anthropogeography, health psychology, psychoimmunology, human-animal relations, social studies of disease, ethnopharmacology, sociobiology, medical anthropology, cultural studies, critical legal studies, discourse analysis, ethnophilosophy, historical sociology, the law and literature movement, ecofeminism, museum studies—to name only a few of the more recent specialized niches that have been staked out by scholars over the last twenty years. All of these are examples of specializations not yet embraced that would provide new perspectives, help define new user populations, and provide much fuel for professional development. Add to this the realignments of the Eurocentric canon of ideas and methods that are occurring with the globalization of culture, and the possibilities multiply even further.

There is different but promising territory in the areas of functional and format specialization. If librarians are able to rethink the problems of classification, cataloging, and bibliographic control in ways that make new and emerging fields more accessible, and thus promote more mutual awareness of possibilities for collaboration where specialized researchers might not have noticed them, they will simultaneously define new landscapes of technical services and new services for users. Format spe-

cialization, already partly represented in librarianship by government documents, special collections, maps, and children's literature, is being restructured by the arrival of a range of newer digital formats. Of these, only government documents and digital initiatives seem to have generated high levels of interest; other areas seem unaccountably neglected, as is also the general area of textual authority, of increasing concern as digital formats in some areas replace print sources.

#### THE NEED FOR INTEGRATION: THE SOCIAL ORGANIZATION OF KNOWLEDGE

If librarianship follows this path of increasing specialization, however necessary that may become in order to keep current with new knowledge, does it then simply break up into so many balkanized specialties and lose whatever unity it once may have had? To some extent this is inevitable, but it does not mean that there are no paths to integration. Earlier versions of this dilemma have been faced in the past. For example, in the United States at the end of the nineteenth century, the research output mushroomed and the great university libraries took shape (Bestor, 1953, p. 176). At the same time, the professionalization of teaching took over the domain of education. In response to both trends, librarians developed general classification schemes and cataloging services. These are still being used and continue to exercise both practical functions in retrieval as well as a general intellectual function of cognitive organization.

This older path to integration is well worth keeping, but there is another that could also be followed to somewhat different effect. This path is not new either, but it has emerged much more recently than the bibliographic control schemes that mark the heyday of progressivism in American librarianship; it is rooted in the histories and sociologies of knowledge. It is an approach that was first called "social epistemology" in the early 1950s (Wilson, 1983, p. viii; Egan & Shera, 1952) and as recently as the late 1980s (Fuller, 1988). Basically, it is the study of the social organization of knowledge production and distribution or, alternatively, the sociology of formal knowledge. "Production" takes care of the original work of the scholar, writer, scientist, and artist, and overlaps with the publishing industry that transforms this work into a distributable text; "distribution" covers the activity of the librarian proper—i.e., selecting, acquiring, gaining access to, collecting, controlling, assessing, evaluating, mediating, and all the other functions librarians fulfill in matching texts with their users (the word "text" like the word "work" is deliberately format-neutral, as it will have to be in a multiformat knowledge environment).

From this viewpoint, what underlies and integrates the work of all librarians is that it deals with texts that encode the knowledge works of their producers. A widening of the traditional jurisdiction, in effect

making the librarian a kind of specialist in the social organization of knowledge, brings some of the integrative potential which so often seems to disappear as knowledge production itself becomes more specialized. As librarians become more specialized in respect of subject, language, area, and format, they follow the differentiating trend, but as they understand the underlying social activity of knowledge production, they discover an integrative force that binds together all knowledge-treating activity. It is obviously not possible to treat this in depth here, but it is reasonable to present some sense of a general outline of the social organization of knowledge as it affects librarians.

*Work, Text, and Collection*

The collections of materials that librarians are typically charged with managing contain two very different, but closely related, types of cultural objects, the ideal or intangible creations of primary producers, usually called "works," and those physical objects (books, articles, periodicals, microforms, computer disks, tapes, and a range of other materials of various formats and media) designed and used as vehicles to present works. These are produced in a secondary sense by publishers. To distinguish the physical from the ideal object, these can be called "texts." This basic distinction is essential for a number of reasons which cannot be further treated here, but which include the central problem of textual authenticity, or credibility in a general sense, or perhaps what Wilson (1983) more generally calls cognitive authority, as applied to knowledge producers and their products, which users expect librarians to know about.

*Use Values and Exchange Values of Cultural Objects*

It is clear that cultural objects have two distinguishable types of value as all commodities do. Just as one may traffic in material goods either to make direct use of them or to exchange them for something else, one may seek a text to make direct use of it or to compare it with others. Works and texts are resources which are simultaneously products, items in circulation or use, and items which acquire a certain value in comparison with other items or exchange value. Exchange value, because it does not involve direct consumption but rather comparison with other objects, acquires a special symbolic significance which enables comparison to flourish. Thus an intellectual work, whatever physical form its textual vehicle may take, is a product because it is the result of human labor; it is in use or circulation when consulted, read, cited, quoted from, etc.; and it can be exchanged for or, more accurately, compared with other works judged more or less equivalent to it. A certain work was produced by an author and then published (i.e., made into a text) by a publisher; the text moves back and forth among readers, library and bookstore shelves, and, in some cases, museums as it is accessed, read, discussed, quoted, or observed; and finally it acquires a position in relation to other works of its kind which determines its exchange value.



One of the reasons why we distinguish between work and text, aside from the fact that they are two different things, is because they have such clearly different exchange values. The intangible work has a purely qualitative value, expressed by its reputation, or the prestige it has achieved (the work is judged "superior," "extraordinarily important," "ordinary," "not quite what we had hoped for," etc.), while the tangible text can be physically described and measured and exchanged or compared on the basis of cost, price, length, format, typography, condition, etc. Thus the question of comparing a work of Plato's to something by Aristotle or Aquinas or Marx is not a matter of measurement in any literal sense but rather a matter of judgment of intellectual worth; whereas the comparison of one text to another is indeed expressible in quantitative terms—e.g., a certain sentence appears on page sixty-five; this edition is in a red cloth binding or appears on certain size magnetic tape; the text has so many pages; the text block is so many centimeters long, occupies so much disk space, etc. These two provinces are distinct enough to have given rise to two completely distinct and perhaps incompatible types of scholarship or inquiry: that which focuses on the work and that which focuses on the text. Yet work and text both are produced by the same underlying human activity even though "critics" deal with the former and "bibliographers" with the latter.

Although library and information users may turn to critics and commentators more than to librarians in determining exchange value, it is clearly essential for librarians to know something about both, because users are concerned about both. Thus the use-oriented question about a certain text (does it contain what is required for a task?) may easily involve an exchange-oriented question (how does this version compare with that, etc.?).

#### *Cultural Capital Formation in Knowledge Production*

The broadly socio-economic or political-economic cultural capital formation approach allows us to describe and understand knowledge and information managing activity in terms of the circulation of resources that make it possible. This circulation of resources does not appear to the user directly and remains hidden even though it is the common thread uniting the differentiated specialties. The specialized fields, in other words, are centers of intellectual capital production, use, and exchange.

By "capital" is generally meant wealth or resources used in various kinds of production, particularly those which are set aside for the purpose of generating more wealth or resources. The ultimate reason for capital's existence is that production takes time, and thus there must of necessity be an investment of resource before there is any possibility of return (Lerner, 1968). The concept of "investment" is critical, with its implication of risk, of commitment of resources, before return. Also,

there is an implicit contrast between economic production and mere consumption of what lies ready at hand and can be consumed with no productive labor. The various types of capital are accumulated, circulated, inherited, invested, and generate, as the case may be, different types of return. Economic historians were among the first to note that "capital," far from being a purely material notion indicating the tangible inputs into production (land, labor, and machinery), has the very broad reach used here (Nicholson, 1925, pp. 217-19).

To apply this here, one makes explicit an implicit distinction between resources whose form is material (land, labor, energy, machinery, raw materials, etc.) or economic capital and resources whose form is intangible (social connections, taste, knowledge, insight, educational achievements, expertise, etc.). In some cases, the circulation of these resources results in material advantage, in others it contributes rather to the accumulation of an intangible wealth.

In what is perhaps the clearest statement in English of a characteristic position, the French sociologist Pierre Bourdieu (1986), having first separated the material from the immaterial form of capital, distinguishes two very broad types of immaterial capital—i.e., the cultural and social (pp. 243-44). Cultural capital, which includes intellectual resources, in turn is of three kinds: it may be embodied in a person or a group (dispositions, ideas, cognitive styles, orientations, values, "taste"), it may be presented as a product or "objectified" (writings, works of art, etc.), and finally it may appear in the social processes which legitimate expertise and serve as markers or guarantees of intellectual authority (titles, honors, degrees, formal qualifications, educational curricula, etc.). Social capital, which is not divided into subtypes, refers to the resources accessed through group membership and personal connections which provide various advantages. Though not reducible to cultural capital, social capital is of great indirect relevance to its accumulation, since scholars and researchers are highly dependent on social connections and channels of communication. Librarians, information specialists and brokers, booksellers, and some teachers enter the picture at the distributional end of the process of intellectual capital formation. To some extent, perhaps, they overlap with museum curators in dealing with cultural capital *per se*.

Since most knowledge producers and distributors pass through the elaborate and lengthy process of becoming educated, a more complete treatment would require reference to education, particularly higher education, as the legitimating source of much of the activity that goes into intellectual capital formation and circulation (Apple, 1995). And this, in turn, obviously requires reference to the complex processes, touched upon briefly in this article, that have contributed to the development of social control mechanisms, such as the professionalization process, in which domains of expertise are rooted in educational certification and credentialing.

This possibility of achieving intellectual integration through social epistemology is obviously highly theoretical, but it also presents some opportunities for policy-oriented developments which are quite interesting in their own right. If librarians have expertise in the social organization of knowledge, might this expertise be used not only to help people find and evaluate information sources, but also be used in a more broader evaluative enterprise? Thus, with expertise in information retrieval, subject or area knowledge, and social epistemology, the librarian might well have a role in what Fuller (1988) has called "knowledge policy studies" (pp. 289 ff.).

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#### REFERENCES

- Abbott, A. (1988). *The system of the professions*. Chicago, IL: University of Chicago Press.
- Adorno, T. W. (1987). Late capitalism or industrial society? In V. Meja, D. Misgeld, & N. Stehr (Eds.), *Modern German sociology* (pp. 232-247). New York: Columbia University Press.
- Appadurai, A. (1990). Disjuncture and difference in the global cultural economy. *Public Culture*, 2(2), 1-24.
- Appadurai, A., & Breckenridge, C. (1988). Why public culture? *Public Culture Bulletin*, 1(1), 5-9.
- Apple, M. W. (1995). Cultural capital and official knowledge. In M. Berube & C. Nelson (Eds.), *Higher education under fire: Politics, economics, and the crisis of the humanities* (pp. 91-107). New York: Routledge.
- Bacon, F. (1605). *The advancement of learning*. London, England: Henrie Tomes.
- Banks, R. (1986). *Continental drift*. New York: Ballantine Books.
- Bauer, H. H. (1990). Barriers against interdisciplinarity: Implications for studies of science, technology, and society. *Science, Technology, and Human Values*, 15(1), 105-119.
- Berger, G. (1972). Opinions and facts. In L. Apostel, G. Berger, A. Briggs, & G. Michaud (Eds.), *Interdisciplinarity: Problems of teaching and research in universities*. Paris, France: OECD.
- Bestor, A. E., Jr. (1953). The transformation of American scholarship, 1875-1917. *Library Quarterly*, 23(3), 164-179.
- Bourdieu, P. (1969). Intellectual field and creative project. *Social Science Information*, 8(2), 89-119.
- Bourdieu, P. (1973). Cultural reproduction and social reproduction. In R. Brown (Ed.), *Knowledge, education, and cultural change: Papers in the sociology of education* (pp. 71-112). London, England: Tavistock.
- Bourdieu, P. (1981). The specificity of the scientific field. In C. C. Lemert (Ed.), *French sociology: Rupture and renewal since 1968* (pp. 257-292). New York: Columbia University Press.
- Bourdieu, P. (1986). Forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and method for the sociology of education* (pp. 241-258). Westport, CT: Greenwood.
- Chartier, R. (1993). Libraries without walls. *Representations*, 42(Spring), 38-52.
- Connell, R. W. (1983). *Which way is up?: Essays on sex, class, and culture*. Sydney, Australia; Boston, MA: Allen & Unwin.
- Connell, R. W.; Ashenden, D. J.; Kessler, S.; & Dowsett, G. W. (1985). *Teachers' work*. Sydney, Australia: Allen & Unwin.
- Cooper, H., & Hedges, L. V. (Eds.). (1994). *Handbook of research synthesis*. New York: Russell Sage Foundation.

- Dogan, M., & Pahre, R. (1990). *Creative marginality: Innovation at the intersections of social sciences*. Boulder, CO: Westview.
- Easton, D. (1991). The division, integration, and transfer of knowledge. In D. Easton & C. Schelling (Eds.), *Divided knowledge: Across disciplines, across cultures* (pp. 7-36). Newbury Park, CA: Sage.
- Easton, D., & Schelling, C. (Eds.). (1991). *Divided knowledges: Across disciplines, across cultures*. Newbury Park, CA: Sage.
- Eco, U. (1983). De bibliotheca. In *Sette anni di desiderio* (pp. 27-50). Milano, Italy: Bompiani.
- Egan, M., & Shera, J. H. (1952). Foundations of a theory of bibliography. *Library Quarterly*, 22(2), 125-137.
- Fermi, L. (1968). *Illustrious immigrants: The intellectual migration from Europe, 1930-41*. Chicago, IL: University of Chicago Press.
- Fleming, D., & Bailyn, B. (Eds.). (1969). *The intellectual migration: Europe and America, 1930-1960*. Cambridge MA: Harvard University Press.
- Freidson, E. (1986). *Professional powers: A study of the institutionalization of formal knowledge*. Chicago, IL: University of Chicago Press.
- Fuller, S. (1988). *Social epistemology*. Bloomington IN: Indiana University Press.
- Garfield, E., & Small, H. (1985). The geography of science: Disciplinary and national mappings. *Journal of Information Science*, 11, 147-159.
- Gilreath, J., & Wilson, D. L. (Eds.). (1989). *Thomas Jefferson's library: A catalog with entries in his own order*. Washington, DC: Library of Congress.
- Gonzalez, A. (1992). Higher education, brain drain, and overseas employment in the Philippines: Towards a differentiated set of solutions. *Higher Education*, 23(1), 21-31.
- Grewal, I. (1994). The postcolonial, ethnic studies, and the diaspora: Contexts of ethnic immigrant/migrant cultural studies in the U.S. *Socialist Review*, 24(4), 45-74.
- Hughes, H. S. (1975). *The sea change: The migration of social thought, 1930-1965*. New York: Harper and Row.
- Klein, J. T. (1990). *Interdisciplinarity: History, theory, and practice*. Detroit, MI: Wayne State University Press.
- Kopytoff, I. (1988). Public culture: A Durkheimian genealogy. *Public Culture Bulletin*, 1(1), 11-16.
- Lerner, A. (1968). Capital. In D. L. Sills (Ed.), *International encyclopedia of the social sciences*. New York: Macmillan.
- Lie, J. (1995). From international migration to transnational diaspora. *Contemporary Sociology*, 24(4), 303-306.
- Lipset, S. M. (1981). *Political man*, 2d ed. Baltimore, MD: Johns Hopkins University Press.
- Lombardo, P. (1992). Cultural studies and interdisciplinarity. *Critical Quarterly*, 34(3), 3-10.
- Loriggio, F. (1995). Comparative literature and the genres of interdisciplinarity. *World Literature Today*, 69(2), 256-262.
- Marcus, G. (1995). Critique, fashion, and interdisciplinary intellectual style in the transformation of anthropological research. In *Publishing the social text: Issues in sociology and anthropology publication*. [Audio Cassette Program] moderated by E. Sutton, Anthropology and Sociology Librarians Section, Association of College and Research Libraries, Annual Program, June 22, 1995, Chicago, IL.
- Messer-Davidow, E.; Shumway, D. R.; & Sylvan, D. J. (1993). *Knowledges: Historical and critical studies in disciplinarity*. Charlottesville, VA: University of Virginia Press.
- Nicholson, J. S. (1925). Capital. In H. Higgs (Ed.), *Palgrave's dictionary of political economy* (pp. 217-221). London, England: Macmillan.
- Oberg, L.; Mentges, M. E.; & McDermott, P. N. (1992). Role, status, and working conditions of paraprofessionals: A national survey of academic libraries. *College & Research Libraries*, 53(3), 215-238.
- Price, D. de S. (1981). Development and structure of the biomedical literature. In K. S. Warren (Ed.), *Coping with the biomedical literature* (pp. 3-16). New York: Praeger.
- Schelsky, H. (1987). Sociology as a science of social reality. In V. Meja, D. Misgeld, & N. Stehr (Eds.), *Modern German sociology* (pp. 119-137). New York: Columbia University Press.
- Schuster, J. (1994). Emigration, internationalization, and "brain drain": Propensities among British academics. *Higher Education*, 28(4), 437-452.
- Small, H., & Garfield, E. (1985). The geography of science: Disciplinary and national mappings. *Journal of Information Science*, 11, 147-159.

- Stalker, P. (1994). *The work of strangers: A survey of international labour migration*. Geneva, Switzerland: International Labour Office.
- Wiebe, R. H. (1967). *The search for order, 1877-1920*. New York: Hill and Wang.
- Wilson, P. (1983a). Bibliographical r & d. In F. Machlup & U. Mansfield (Eds.), *The study of information: Interdisciplinary messages* (pp. 389-397). New York: Wiley.
- Wilson, P. (1983b). *Second-hand knowledge: An inquiry into cognitive authority*. Westport, CT: Greenwood Press.
- Winter, M. F. (1988). *The culture and control of expertise: Toward a sociological understanding of librarianship*. New York: Greenwood.
- Winter, M. F. (1991). Specialization and interdisciplinary growth in the social sciences. *Behavioral and Social Sciences Librarian*, 10(2), 1-7.
- Winter, M. F. (1993). Librarianship, technology, and the labor process: Theoretical perspectives. In J. Buschman (Ed.), *Critical approaches to information technology in librarianship: Foundations and applications* (pp. 173-195). Westport, CT: Greenwood Press.
- Winter, M. F. (1994). *Librarianship and the labor process: Notes on the rationalization and restructuring of intellectual work*. Unpublished manuscript.