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Segmented Professions: Further Considerations of Theory and Practice in LIS and Librarianship

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Introduction

There is an equivocal relationship between the academic field of information studies and its practical application, the information professions (Cornelius, 2004). This is increasingly visible with regards to the proliferation of theories of information.

The philosophy of the social sciences makes perspicuous certain issues raised by considering the relationship between theory and practice. These issues include the delineation of a discipline; the status of a discipline; the issues or phenomena to be studied by that discipline (according to its status and its definitions); and the definitions of phenomena to be studied by that discipline. [1]

In this paper I shall discuss these issues by exploring matters common to various disciplines. Using sociology as an example and as a resource to examine the nature of theorizing, I shall explore the connections listed above in the contexts of information and Library & Information Studies (LIS). In sociology, these forms of issues have produced a literature of self-examination as to the state and to the state-of-the-art of the discipline (Baehr and O'Brien, 1994; Clawson and Zussman, 1998; Stinchcombe, 1982).

Theorizing *per se* is a necessary activity for the acceptance and consolidation of a discipline. As Cornelius (2002, p. 419) argues, "Theory development is part of the working apparatus of a field of study, and the facility to develop theory must itself be kept in good order." However, I do not just argue that theorizing about information is important for LIS: I also suggest that it is important to consider the form and status of theorizing.

This paper formulates a reflexive relationship between research and practice, between practitioners (librarians, information professionals, information workers) and scholars working within the field of LIS. The practitioner/theoretician distinction is an issue that has been rehearsed in other disciplines, e.g. the pure/applied dichotomy in sociology, where the sociologist is accorded the responsibility not just of explicating the prevailing attitudes of members of society but redressing problems within society (Waller, 1936). [2] In addressing these issues I shall comment upon the nature of the profession and significant contributions to this literature.

Another parallel with other areas of knowledge is definitional. Some areas of knowledge are equivocal *vis-à-vis* their phenomena of study, e.g. "discourse" and discourse studies (Watson, 1995, p. 316), "environment" and environmental studies (Teymur, 1982). If there is an area of knowledge known as "information studies" then what is the subject of its study? Is the subject "information", or with what

people have to do with "information", e.g. how people interact with information? An agreed definition of "information" has not yet been reached, as defining information has been implicated with data and knowledge.

The Generic Relevance of Theorizing

The utility of theorizing is applicable to many academic disciplines and practical, everyday life situations; the relevance of theorizing is not just an issue for LIS or limited to the librarianship/LIS nexus. After discussing the theory/practice issue with people in different professions, as well as librarianship, this relation is observable in areas such as law, social work, and education. In the case of practising law, "keeping up with the literature" has its own special character. Reading law is a retrospective reading of literature: not keeping up with current theories but keeping up with precedents. Unless they take out individual subscriptions, practising social workers have little opportunity to keep up with new theories published in the (peer-reviewed) social work literature, only what appears in professional magazines (e.g., *Community Care*). [3]

For established members of the teaching and social work professions, access to current theories is a motivating factor in mentoring and assisting training schools to find placements for students. According to social work professionals who discussed these issues with me, it is not just becoming involved with the training of the next generation of the profession, but the opportunities to be apprised of current developments in the field. These opportunities occur in interviews with candidates for student placements, formal and informal conversations with the student (e.g. "What have they got you reading at the moment?"). Contact within the student-mentor relationship may also raise doubts about teaching programmes, in cases where an identical reading list is circulated each year.

The Problem of Definition

Another aspect to these issues is the problem of definition. Over time, the terms used to refer to phenomena change, which has implications for searches based on controlled vocabularies (Huber and Gillaspay, 1998). This problem is not restricted to the contingencies of interdisciplinary research (Spanner, 2001) as terminology shifts within disciplines. Of particular concern to this paper are the shifts within library and information science (Bawden, 2001) and within sociology (Blumer, 1969, p. 141).

Buckland argues that changes in the forms and representations of information require a revision of traditional attitudes towards the nature of documents, e.g. the definition of "multimedia" (Buckland, 1991a, pp. 587-588) and, concomitantly, the definition of a "document" (Buckland, 1997). Yet in Buckland's claims can be discerned an avowal of the primacy of information science. It is not just that no other discipline is concerned with the nature of documents or forms of media, but an implicit claim that information science is the area with the most expertise to discuss these matters. Furthermore, that when discussing these matters, other disciplines should defer to the expertise possessed by information scientists. This order of reasoning is known as "professional imperialism" (Strong, 1979), though here I am highlighting a case of imperialism in areas of knowledge. The thesis of imperialism involves claiming a phenomenon of study, or disciplinary territory, to the exclusion of existing claims by other fields of inquiry. These claims are intensified, whereby a profession/area of knowledge "seeks a monopoly" on a matter, and provides solutions to problems that are defined by that area of knowledge (Strong, 1979, p. 199).

The thesis of professional imperialism requires that conceptualizing, philosophizing and theorizing about information are imperative for LIS. As an example, the establishment of sociology, and its own unique subject matter, may clarify the nature of disciplinary and professional imperialism. In order to claim a topic, or a family of topics for study, proponents of the new discipline of sociology had to identify and establish gaps in academic knowledge. First published in 1895, Émile Durkheim's (1982) treatise *Rules of Sociological Method* constituted a seminal though convoluted attempt to lever phenomena for study from established disciplines such as economics, botany and, most importantly for his objectives, psychology.

Durkheim distinguished between social and psychological phenomena because he wished to inquire into the rules of sociological method. In other words he wished to define a scientific way of studying society, and by doing so make sociology in practice scientific. Of course this raises the question of what makes a discipline a science. For Durkheim, being scientific meant adopting the positivist philosophy of Auguste Comte – seeking general laws through the unbiased observation of empirical facts. However, for a science of society to exist it must have its own subject matter and be governed by its own principles. Thus Durkheim was compelled by the nature of his task to define the distinctive characteristics of the phenomena to be studied in sociology. The "scientific motive" thus led Durkheim to distinguish social phenomena from all other phenomena. The distinction between social and psychological phenomena was an aspect of this much greater distinction. Durkheim called the phenomena that he identified as the subject matter of sociology "social facts". Ever since Durkheim's theorization of phenomena – social facts, as distinct from "psychological facts" – sociologists have been concerned with defining and consolidating the topics of sociological inquiry (Small, 1905; Sorokin, 1931).

Similarly LIS has had to work in order to "claim territory which no other discipline has claimed" (Brookes, 1980, p. 128). Difficulties in establishing information science have been exacerbated by the polysemous nature of the term "information", which is ambiguous (Wersig, 1997, p. 220) and resistant to one, accepted definition (Machlup, 1983). In the case of information, "the discipline" is not known by a standard name but a number of names (Wellisch, 1972). In terms of the definition of information, according to one classification (Yuexiao, 1988), different definitions of information have produced a division of labour within a complex or "family" of library- and information-related areas of study. This is consolidated by the professionalization of work done under the auspices of "segmented" fields (e.g. Mackenzie and Sturges, 1999; Mount, 1997).

A "state of the art" [4] report (Capurro and Hjørland, 2003) reinforces the point that disciplines are associated with definitions and conceptual work. Perhaps we may even suggest that disciplines appropriate the study of phenomena according to the definition of and conceptual work related to the phenomena. This is observable in the demarcation of disciplinary boundaries (Yuexiao, 1988).

Belkin (1978, p. 58) suggests that the search for definitions of information has been of little avail. In the establishment of a science of information, which has a mature body of theoretical knowledge, the emphasis should change from the search for definitions to the search for concepts. A later commentator disregards Belkin's (*ibid.*) careful distinction, conflating concept with definition *ab initio* (Qvortrup, 1993, p. 3). [5]

Belkin's argument is somewhat disingenuous, however, as concepts are reflexively related to theorists' definitions of phenomena. Concepts presuppose definitions, and "useful concepts" do not depend upon "universally true definitions" (Belkin's emphasis, *ibid.*). Proposing and using concepts are important in the work of theorizing; however, theoretical work involves definitions – even tacit ones.

The initial, definitional work contributes to the foundations of theorizing. Introducing his overview of debates *vis-à-vis* the concept of information, Qvortrup (1993, pp. 3-4) grounds the nature of theorizing within a Neo-Kantian frame of reference, thing *versus* private interpretation. These prefatory invocations of ontological positions contradict the previous assertions that information science "has no theoretical foundations", that "conceptual clarification" (Peter Winch's [1958] definition of philosophizing) is unnecessary in an enterprise without "basic assumptions" (Brookes, 1980, p. 125). The next section presents a brief discussion of the foundations of LIS.

The Cognitive Programme of LIS

The Library & Information Studies plenum is based upon mentalistic conceptions of the social world. As Coulter (1991, p. 176) argues, this foundational characteristic has led to attempts to excuse or minimize the conceptual difficulties that result from accepting the ontological basis of cognition theories. A

novel approach to this problem is the unconvincing claim to be cognitive without being mentalist – "the "cognitive view" (as opposed to a "cognitivist view") of information science (Ingwersen, 1992a, p. 300).

Ingwersen's distinctions are unclear, as elsewhere (1992b, p. 227) he defines cognitivism in relation to the mind-computer view. Ryle (1963a) traces this reasoning back to the philosophical writings of René Descartes, specifically the opposition of mind-body. This produced an error of logic (or "category-mistake") that is reproduced and amplified by epistemological viewpoints that derive from the original mind-body distinction. Buckland (1991b) also subscribes to the Cartesian myth or mind-body dualism. This is evident in his conflation of mind and brain, derived from two key assumptions: that the mind exists, and that the location of the mind is in the brain (Searle, 1984). These assumptions interfere with Buckland's (1991b, p. 352) attempts to define "information-as-thing", a linguistic relativism that regards "words" (language) as conduits to "thoughts". These epistemological assumptions are not limited to theoretical expositions but are also thematic in information research in various disciplinary and practical contexts, e.g. marketing (Scott, 1994) and organizational studies (Winterscheid, 1994).

In the social sciences, this mind-body opposition was the basis for conceptual distinctions that became major orientating devices of debates, e.g. structure-agency, society-individual, objectivity-subjectivity. Hence, issues on the nature of cognition and the mind/body dualism should not be glossed over. [6] The incorporation of the Cartesian frame of reference will ensure that information theory will remain within the parameters of LIS; it cannot contribute meaningfully to multidisciplinary inquiries as it will only exacerbate logical errors and category mistakes. Academics outside LIS would reasonably expect information scientists to have working definitions of the phenomena that are claimed to be the niche for information science within the academy. In a situation reminiscent of the development of Cultural Studies, the theory may be "good enough" for LIS but, with the avowed objective to be taken as a *bona fide* domain of inquiry within the panoply of disciplines, the explicit and residual mentalism of information theories will impede its acceptance.

Another side of this matter is the linkage of library and information-work with LIS. That is, if information professionals are more concerned with the outcomes of theorizing from LIS rather than the theorizing itself, then they could be the unwitting recipients of inferior forms of theory. This is one reason why library workers should be engaged with the nature of theorizing in LIS, to contribute to and *monitor* the adequacy of theoretical debates conducted within the field. To take a canonical example from the development of LIS, it is possible that interpretations of Shannon's mathematical reasoning – *viz.* Weaver's interpretations and subsequent analyses based on Weaver's version – could be incorrect (Ritchie, 1986).

Monitoring the Field

Joseph Fichter (1957, pp. 7-8) argues that sociologists, for example, rely upon facts or "prerequisites of knowledge" (e.g. census data, climate, heredity), from "auxiliary disciplines" (*inter alia*, biology, geography, psychology). Yet in Fichter's outline, these "facts" are somehow transformed into "assumptions" (Fichter, 1957, p. 8). An analogous phenomenon is observable in LIS. Elfreda Chatman, in her attempts to "overcome [LIS'] present state of theory fragmentation" (Ingwersen, 1992, p. viii), transforms empirical research from other disciplines and presents it as theory for LIS. [7] Theoretical discussions of "information and "knowledge" have been advanced towards aspects of librarianship, e.g. classification (Buchanan, 1979); however, the appearance of *coherent* expositions of theory for LIS is a comparatively recent phenomenon (Bowker and Star, 1999; Star, 1998). In the absence of a coherent body of theory for LIS, the emphasis has been on research methods (Mellon, 1990; Powell, 1999). [8]

Cornelius clarifies the "Catch 22" situation that LIS finds itself in, when he argues "until we know what it is that we cannot do without a theory of information, we will be unlikely to get one" (Cornelius, 2002, p. 421). Within his own writings he has assimilated an impressive array of conceptual literature, providing LIS with a further level of theoretical depth. Throughout his work (Cornelius, 1996) he has emphasized the importance of *interpretation* – the social context of information. It is unfortunate that

major synthesizing texts have a cognitivist cast at the expense of the intersubjectively relevant literature on the social nature of information.

The assertion that there is a paucity of theoretical approaches to what Nico Stehr calls "knowledge as such" (Stehr, 1994, p. 92) exhibits a range of reading that does not include empirical studies, in both the sociology of scientific knowledge (SSK) and the sociology of occupations. Stehr misses Edward Rose's distinction between forms of knowledge and forms of activity – the "business at hand" and "something else again" (Rose, in Steffen, 1990); and the expression of "technical" knowledge *in situ* (Jacoby and Gonzales, 1991). A further omission is noticeable in his reference to a distinction "between what is known, the content of knowledge, and knowing" (Stehr, 1994, p. 93). This distinction makes relevant the classic essays of Analytic Philosophy by Gilbert Ryle (1954; 1963b).

Stehr's thesis is that after the exhaustion of natural resources for indigenous economically viable industries, and the consequences of this for the industrialized economy, the industrial economy must substitute wealth creation with some other means (Stehr, 1994, p. 163). Stehr discerns evolutionary change, *qua* submerged functionalism, that is juxtaposed with forms of structural-conflict approach, e.g. stratification (see Stehr, 1994, p. 93).

Stehr's main contribution to theorizing in LIS is his "experts, advisors and counsellors" typology (though he uses these terms interchangeably; strictly speaking, therefore, this is a notion rather than a typology). However, his emphasis (Stehr, 1994, p. 162) on "knowledge-based occupations" excludes – and displays ignorance of – the forms of knowledge required by occupations outside his typologies.[9] This shows that Stehr's account is prescriptive rather than explicative. "Knowledge-rich" and "information-rich" occupations remain under-studied within LIS, such as nursing, driving taxis and janitorial work. Sites of informational activities include shift changeovers on hospital wards (Sudnow, 1967); and the taxi-driver and the distribution of tasks (Psathas and Henslin, 1967). The janitor is not seen as a knowledge-based occupation; within LIS (Chatman, 1991), janitorial work is taken strictly as a manual occupation. Chatman focuses on the types (or "levels") of information that janitors use in their everyday lives. This misses the social and information-rich quality of the janitorial occupation available for inquiry, as Gold (1952) shows that the janitor knows who people are in his [10] building and how things get done. Not doing things, or not doing things immediately, brings impolite tenants into line, e.g., delaying the maintaining of the plumbing, whereby Gold's janitors exemplify the French philosopher Michel Foucault's famous "knowledge/power" nexus, in real-world situations.

Extending the study of "information" to informational activities, e.g. in workplace contexts such as those above, affords discussion of existing concepts and theories of information, relevance, information retrieval and information literacy. What constitutes competent, ratified use of information in one workplace, for instance, is not necessarily transferable to other workplaces/practices. It is a challenge for both the library profession and field to accommodate site-specific information needs and uses. [11]

In a situation "characterized by a seemingly inordinate self-consciousness" (Belkin, 1978, p. 55), which has not always translated into systems of self-regulation (in terms of the proliferation of theories), the producer/practitioner relationship acquires greater salience. Realizing the connection between consumers of knowledge and producers of knowledge makes relevant the reflexive arrangements of field and profession, of theory and practice. Cornelius iterates this coherence when he states "theories can be an implicit part of the practice, rather than some explicit formulation external to the inevitable reflection of any practitioner" (Cornelius, 2002, p. 419-420). The following section details these relationships, using forms of sociological theorizing as means of exploring the nature of "the profession" *vis-à-vis* "the field".

Professions: Theorizing Practice

Who are the recipients, or beneficiaries, of theorizing in LIS? The theorist benefits from intangible rewards, such as scholarly activity, communicating their ideas at conferences with their peers, and having

their papers published in learned journals. They are not paid for writing articles, nor are referees paid for their reviewing services. However, they are rewarded in "professional" terms, via access to research and the prestige of association with high-quality journals (Kibby and White, 1999, p. 3). Other recipients include fellow LIS researchers, who benefit from a new source of argument that they may accept, reject, discuss, use or even include in rejoinders to journals. Students comprise a further cohort of recipients of theorizing in LIS. Like other professions mentioned above, practitioners receive theory via current students or newly qualified professionals, who have studied the most recent theories as part of their postgraduate training.

Here, the nature of the library profession is important.[12] Cornelius (1997, p. 244) argues that the profession is not reducible to a set of criteria, e.g., a professional body that has the power to censure its members; a shared body of knowledge that each member has to show competence in; freedom for members to move within the profession. Indeed, a discussion of the attributes of a profession (Roth, 1974) identifies a wide variation in the criteria listed by studies of occupations; furthermore, that the notion of professions is frequently at variance with professionals' practices. Of course, a tension arises if such variance occurs between professionals' practices (library work) and the related academic field (LIS).

Theorizing within the profession, or within the practice of the work of the profession, is also important. As Cornelius goes on to say, "Practitioners, by reflecting on their work situation, achieve greater insight into the work and a deeper understanding of the Practice" (Cornelius, 1997, p. 244). Cornelius argues that "research" is not the sole responsibility of library and information scientists, nor that "research" is conducted solely within the walls of LIS departments. For Cornelius, research is a reflexive part of the librarian's work, i.e. that research is an integral feature of doing professional work.

Significant and relevant work on the nature of professions has appeared in literature sources outside LIS, which may increase our understanding of the research/profession (or pure/applied) relationship. For instance, while Bucher and Strauss' approach to professions uses the fields and subdivisions of medical work as its exemplars, it contains perspicuous analyses for the state of library and information work. Like Cornelius (above), Bucher and Strauss (1961) move beyond the ideal-typical criteria of professions. They demonstrate how previous studies of occupations have tended to reify professions into homogenous groups. Instead, professions are in a continual process of *segmentation* – the clustering of professionals within the profession into various "segments" or fields of activity. These different interests and fields of activity are manifest in disciplinary artefacts, e.g. methodological preferences and journal subscriptions (Bucher and Strauss, 1961, p. 328).

Bucher and Strauss' analysis can be applied directly to the relations within LIS and with library work. For example, is the field of LIS constituted by a dichotomy between or a sub-classification within "library studies" and "information studies"? The sub-classification argument is advanced by Wersig (1992, p. 202), who suggests that "library science" may be considered a constituent of "information science" but not *vice versa*.

The segmentation thesis can be applied also to the arrangements of libraries and sectors, e.g. public libraries, academic libraries, special libraries; and information agencies. Within libraries there are different classes of people (qualified [13] librarians and paraprofessionals), and different classes of people with whom professionals are involved (Bucher and Strauss, 1961, p. 329). These classes of people are organized according to (changing) theoretical and ideological emphases, e.g. borrowers, customers, readers, and users.

Within LIS, the segmentation thesis formalizes the ideological, methodological, theoretical and curricula divisions, including bibliography, books, and classification; and information behaviour, information retrieval, and relevance. The segmentation thesis affords analysis of "circles of collegueship" and alliances, i.e. with whom do theorists or practitioners identify, and identify as "colleagues". In LIS, members of different segments may identify with, *inter alia*, archivists, bibliographers, documentalists, cognitive scientists, computer scientists.

As Bucher and Strauss explicate the segmentation of professions into professional groups, it is an appealing theoretical move to discuss Stanley Fish's (1980) notion of "interpretive communities" in order to study professional groups. Fish is criticized for his attempts to separate the notion from its identifiable provenance, his over-extension of the concept, as well as its use as a platform for theoretical development (Goldsmith, 1998, p. 385-386). However, with its emphasis on the production, rather than the reception of theory (Fish, 1980, p. 14), the notion of interpretive communities has potential for conceptualizing the nature of research and theorizing in LIS. As I have said above, the recipients of LIS theory include students and information workers; contributors to the bodies of theory may be organized into networks, but the notion of interpretive communities captures the experiential and intellectual aspects of theory producers in a more adequate manner. Goldsmith fills in *lacunae* in Fish's model: the role of shared interpretations and "incremental knowledge change" (Goldsmith, 1998, p. 389-391). Using legal studies and the practice of law, Goldsmith's revised notion of interpretive communities articulates the relationships between theoretical contributions and practical applications. [14]

Both the (practical) profession and the (theoretical) field may be segmented into identifiable interpretive communities but, as Goldsmith argues, this does not imply incompatible views on the core phenomena of the field or core activities of the profession. Rather, practitioners and theoreticians may only have "different conceptions of what constitutes the core— *the most characteristic professional act* — of their professional lives" (Bucher and Strauss, 1961, p. 328; emphasis supplied).

For the profession of librarianship and the field of LIS, these theoretical moves may be productive. Are the core activities of a librarian i) meeting the needs of library users; and/or ii) the custodial and organizational management of information resources? A debate within the profession, conducted in the 1920's and 1930's, concerned the status of librarianship, whether it was an art or a science (Karetzky, 1982, p. 60-78). This debate has been superseded by changes [15] in professional claims: from the organization of textual material to the management of information (Cornelius, 2006, p. 532). It is arguable that the "scientific" status is now of relevance only to the theoretical field, in the "library and information studies" *versus* "library and information science" emphasis. [16]

So the status of LIS accorded by these labels is a claim to being a science *qua* natural science, or a portmanteau term for inquiries relating to library and information work.[17] A distinction between library work and information studies is evident in problem-based or issue-based literature. For instance, in LIS, "fieldwork" is not a methodological and theoretical approach to research in library and information studies but a condition of practical work experience in libraries and information agencies (McCarthy and Burke, 1997; Nassimbeni, 1992; Tilley, 1997). Another example is the literature on ethics (Foerstel 1991; Froehlich 1997; MacCann 1989; White 1989). This includes a range of case studies on ethics in library work, e.g. collection management (Bazirjian 1990) and the provision of unconditional access to materials housed in libraries *versus* restrictions on access to potentially problematic materials (Atlas 2001). However, this contrasts with a "noticeable absence" of considerations of ethics in LIS as a discipline (Carlin 2003b).

Discussion

"Information" provides the thematic connection between theory and practice, between the field and the profession. Belkin (1978) provides an implicit logic for studying the profession. Belkin argues that the search for definitions of information is less important than the development of concepts of information (Belkin, 1978, p. 58). Concepts afford means of approaching, organizing, and contextualizing phenomena of study. These need not be theoretical abstractions but can be practical means, also; what Edward Rose (*op cit.*) terms the "business at hand". The handling and preservation of books, the facilitation of correspondences between searcher and online materials: these are not incompatible activities. They are different activities, but each is concerned with the arrangement of information. As Cornelius' (2006) philosophical questioning implies, they are not necessarily competitive with each other, i.e. this is change but cannot be termed development.

Theoretical work – philosophizing, defining, conceptualizing – are crucial activities in the establishment of a discipline. Sciences such as astronomy are concerned with observable features of the Universe: however, even astronomy had to establish a phenomenon for study, and in each round of observations astronomers continue – *must* continue – to refine the phenomenon (Garfinkel, Lynch and Livingston, 1981). For LIS, this situation applies *a fortiori*, as a field which makes claims to study a phenomenon that is not always observable. Beneficiaries of academic theorizing in scientific fields, i.e. practitioners, are also concerned with increasing the visibility of specific features (Hirschauer, 1991). So too the visibility arrangements of information and information-rich materials are theoretically and empirically related. In LIS, "practical" revisions of cataloguing rules and classification systems may be derived from theoretical standpoints. For example, the Dewey Decimal Classification and Universal Decimal Classification systems are based on theoretical approaches to the organization of information.

Conclusion

Empirical studies of information and theorizing about information reflexively reinforce the claim that LIS is the field that is concerned with "information". Theorizing and conceptualizing information are important analytic practices for establishing a discipline, for establishing the phenomenon of study for a discipline, for establishing the ownership of the phenomenon by the discipline, and to refine the phenomenon studied by the discipline. Theorizing is both an active and reactive process, i.e., theorizing begets theorizing. While theories are advanced as explanatory frameworks of phenomena, they are also developed in response to other theories.

From Cornelius' work, it is possible to approach LIS as a more complex whole – field *and* profession. The fashionable notion of networks, applied to academic structures, in contrast to its humble origins within community studies, is now a mathematized, mechanistic analytic tool. While it has fallen into desuetude, the segmentation thesis (Bucher and Strauss, 1961) is, perhaps, an analytic approach that is sensitive to [practice] and [academic field] as complementary parts of heterogeneous, diverse entities.

The sociological approaches referred to in this essay – the segmentation of professions thesis (Bucher and Strauss, 1961) and the revision of interpretive communities as professional and disciplinary entities (Goldsmith, 1998) – elaborate and reinforce Cornelius' account of the profession/research connections. Via concerted reflection on their activities, practitioners "develop a view of the whole picture of the job, and they can make more seasoned contributions to it" (Cornelius, 1997, p. 244). Where librarians (practitioners) and library scientists (theoreticians) had been in a competitive or antagonistic relation with each other (Wellard, in Karetzsky, 1982, p. 75), conflict between them could be resolved by greater appreciation of the respective spheres of activity. For Cornelius, the spheres of activity are not separate but complementary: "Rather than trying to establish links between two different entities, we should understand them as essential parts of the same thing, our profession and discipline" (Cornelius, 1997, p. 243). I suggest that part of the mutual understanding between these activities that Cornelius encourages is the respective relation with information: identifying, studying, theorizing, and organizing information.

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Notes

1. This is extensible to the study of phenomena that are debated within fields yet circumscribed by journal rubrics (Sanders and Sigman, 1994; Tracy, 1994).

2. Indeed, the theory/practice distinction can be used as a rhetorical contrast set (Lynch, 1997, p. 337) to upgrade one's own and ironize others' research.

3. See Harrison et al. (2004). That library theory does not have a high visibility in professional librarianship journals is found in a study of "practical" literature (Kingrey, 2002). Elsewhere, eleven "gaps" between professional and research literature are identified as well as strategies for improving communication between research and practice (Haddow and Klobas, 2004).

4. The state of the art of information theory in its development was analysed by Harold Garfinkel, in an unpublished report (Garfinkel, 1952). His reviews and analyses explored the contours of "information" and its "properties in use". Garfinkel considered the extant theories of information (Bateson and Ruesch, Deutsch, Miller, Shannon, Von Neumann and Morgenstern, Wiener), adducing formal properties of theories of information and (what some now call) "philosophy of information" (PI) (Floridi, 2002a, 2002b). Garfinkel developed a Husserlian phenomenological pattern for discussion of information. Although the report is ahead of its time, Garfinkel does not engage with the "cognitive turn" that occurred later. For notes on the rise of cognitive theory and the academic space it came to occupy in social science, see Watson (In Press).

5. For a critique of the "grammatical structure" of definitions of information, see Marco (1996).

6. For comprehensive discussion and critique of the mind-body dualism in cognitive science, see Button, Coulter, Lee, and Sharrock (1995). A sophisticated questioning of cognition theories *vis-à-vis* information work and information science is to be found in Lammont (1995).

7. For explication of anomalies and adumbration in Chatman's work, see Carlin (2003a).
8. Compare this state of an academic field with occupational practice and the striving for "professional" status, as Eliot Freidson suggested: "If there is no systematic body of theory, it is created for the purpose of being able to say there is" (Freidson, 1970, p. 80).
9. As an example, descriptors of the physical characteristics of terrain and the driving techniques required to navigate the terrain that forms the basis of a job-specific occupational argot (Watson, 1999).
10. All the apartment janitors in Gold's studies were male.
11. This is a complementary argument to Lloyd (2003). Whilst some private-sector librarians are working to meet this challenge, the LIS field has thus far left the analysis of informational activities to computer science, sociology, ethnomethodology and, more recently, computer-supported cooperative work.
12. For useful background on the historicity and nature of library and information professions, see Abbott (1988) and Cornelius (1996, 1997, 2006).
13. Everett Cherrington Hughes, one of Strauss' contemporaries, outlines the Durkheimian problem of the division of labour by focussing on the "frontiers" of work, e.g. which activities can be delegated to auxiliary workers (Hughes, 1951).
14. E.C. Hughes produced his most perspicuous and formal-sociological commentaries on the nature of professions while at the University of Chicago. He was unequivocal that librarianship was a profession like any other; it was not a special case and the interests and conflicts within the profession were manifest within other professions (Hughes, 1961).
15. "Changes", but not necessarily "developments" (Cornelius, 2006, p. 11).
16. The existence of journals that emphasize library studies, e.g. *Acquisitions Librarian*, *Library Hi Tech* ; or information studies, e.g. *Information Scientist*, *Journal of the American Society for Information Science* ; and both e.g. *Journal of Education for Library and Information Science*, *Journal of Librarianship and Information Science*, *Library and Information Science Research*. This emphasis reveals an attitude towards the phenomena of study, manifest in journal rubrics and journal reviews (Bates, 1999).
17. These emphases are available from departmental or institutional designations, between schools of librarianship, schools of library and information science/studies, and schools of information science/studies. The department of LIS at Aberystwyth was renamed without the word "library" in its title: visit the "Aberystwyth loses the 'l' word" thread, on an LIS electronic discussion list (JESSE September, 2002). See Chu (2001).