

Health as a Knowledge Domain and Social Field: Dialogues with Birger Hjørland and Pierre Bourdieu

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Abstract: This paper aims to continue a research effort, which seeks to bring together theoretical and methodological constructs developed by Birger Hjørland and Pierre Bourdieu to investigate structures of production, organization and communication of knowledge from a critical point of view, focusing on health. Paths built in the dialogue between the concepts of both authors are reclaimed and epistemological, thematic, conceptual and methodological relations are indicated. With the aim of guiding paths for the health field analysis in Brazil from the contributions of domain analysis and the sociology of knowledge, the following analytical plans are used: a) historical and institutional; b) relational; c) of production, organization and dissemination of knowledge. On a methodological plane, qualitative and interpretative tools are used, such as depth and narrative interviews, documentation analysis and direct observation, complemented by an analysis of social networks and informetrics. It is concluded that health is a complex knowledge domain, which demands domains that analysts and scholars of the scientific field handle theoretical and methodological means able to achieve its cultural, social and historical existence.

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1.0 Introduction

The analysis presented in this paper is based on reflections developed along a line of research on the processes of social appropriation of knowledge in health, given that in order to understand these processes and their epistemologi-

cal, social, institutional, political and cultural mediations, it is necessary to question the conditions of production, organization and dissemination of scientific knowledge. In order to do so, it is important to consider the products of science not only in terms of the recognition and legitimacy of the work of researchers, but back and forth between

the recognized standards of the institutions and the social sense of the flow of information, given that knowledge does not pre-exist its communication, dissemination, organization or appropriation, since such knowledge is mutually formed in time and in the scientific and social field.

On the other hand, the institutionalization of a field of knowledge and practices essentially depends on its vitality. The latter can be seen by the quality and breadth of its knowledge production system and the ability to share knowledge between the scientific community, professional community and the several social actors. Thus, in the processes of production of knowledge and production of practices, the dynamism of a scientific field is recognized for the quality of interaction and mediation between research, teaching and practice processes. Similarly, publications and scientific issues, methods of communication and models of organization of information act as vectors for the institutionalization and the renewal of scientific fields and knowledge domains, while playing a role structuring mediation in the development of procedures, forms of organization and evaluation principles that define the scientific institutions (Jeanneret and Ollivier 2004, Marteleto and Silva 2015).

From these premises, the aim of this paper is to recover an established line of research, which seeks to bring together theoretical and methodological constructs developed by Birger Hjørland and Pierre Bourdieu in order to investigate production structures, organization and communication of knowledge in health, according to the proposal put forward by Smiraglia (2015, 19), which states that the analysis of a domain requires multiple and successive researches and an extension of the analyst beyond disciplinary and ontological borders.

First, the reception of Bourdieu's work in information studies is highlighted and some concepts and issues surrounding studies of this area internationally are pointed out. Then, some paths already traveled regarding the approximation between the two authors are considered, based on the concepts of knowledge domain (Birger Hjørland) and scientific field (Pierre Bourdieu) and their conceptual and methodological developments for the achievement of a critical approach of knowledge. In the next section and as a way of establishing complementary approximation between the two authors for a proposed analysis of the domain and the health scientific field, the following contextual, theoretical and methodological plans were considered: a) historical and institutional; b) relational; c) of production, organization and dissemination of knowledge. These categories of analysis were extracted from complementary theoretical constructs from both authors and from health literature itself, and applied through a methodological triangulation that gathers informetric and social networks analytic tools, assisted by qualitative tools

such as depth and narrative interviews, direct observation and document analysis.

The counterpoints and additions set out in the transit of theories and methodologies between the organization and the sociology of knowledge can provide a theoretical and methodological approach integrated with critical procedures for the investigation of the social conditions of production of knowledge in health, able to formulate a reflective informational action and socially responsible in the plans of organization, dissemination and social appropriation of knowledge.

2.0 The presence of Pierre Bourdieu in information studies

The 1990s provided information studies with a transformation in the perception of its epistemological, critical and methodological axes, with the construction of new paradigmatic proposals toward the social dimension of its subject matter. In channels opened by Belkin (1980) and the theory of anomalous states of knowledge, Brookes (1981) and the fundamental equation of information science, Wersig (1993) and the development of the idea of information as knowledge for action, among others, new analytical and methodological perspectives were developed which favored interdisciplinary questioning around the conceptual transversality of its subject matter. In the epistemological field, the works of Capurro (1992; 2003) in which the author interrogates a new social paradigm in relation to physical and cognitive paradigms, present hitherto in information science, and those of Capurro and Hjørland (2003), in which the authors review and broaden the theoretical foundations of the concept of information, can be considered as paths of the composite expression of the information phenomenon, both in its ontological field and in its social, practical and applicative dimensions.

Similarly, the reflections of canonical authors of the documentation field, such as Paul Otlet and Suzanne Briet, or of library and information science, such as Jesse Shera and Margaret Egan, are reclaimed by contemporary scholars, such as Bernd Frohmann, Michael Buckland, Ron Day, Jean Meyriat, Richard Smiraglia and Birger Hjørland, in order to refocus the issues and approaches to information in a social context increasingly dependent on the production, organization and access to knowledge as informational materials mediated by new technologies. The social epistemology developed by Jesse Shera and Margaret Egan and documentation developed by Paul Otlet and Suzanne Briet were precursors of the organization and management of networked knowledge to promote worldwide access to universal knowledge. These founders considered, each in their time and circumstances, that social epistemology and the then emerging documentation should encompass a so-

cial view of information across all access environments and uses of knowledge.

In the context of a networked society thought of as of the last decades of the twentieth century, the systemic and linear dimension of information was added to the rizomatic and relational dimension, which brought new issues to the information field, resizing the theoretical and practical understanding of knowledge organization procedures in order to build theoretical and practical mechanisms to critically examine its subject matter and support the actors in the generation, mediation and use of socially produced knowledge.

Therefore, approaches and systematization of the use of “social theory” or a “philosophy with a social or pragmatic look” are organized as studies of the information phenomenon, of the processes of an informational fact in an interdisciplinary perspective, and therefore are able to bring together the theoretical tradition of the field and its professional areas around informational issues in several knowledge domains.

Regarding the appropriation of Pierre Bourdieu's work in information studies, some researchers are considered pioneers, such as Seldén (1999), Savolainen (1999) and Budd (2003), all of whom emphasize the importance of the sociologist's theory in the study of information retrieval practices, in understanding contexts, issues and fundamentals of information and in understanding mechanisms of symbolic power present in the practices and procedures of information professionals, in addition to the role of libraries, documentation centers, museums and archives in the mechanisms of cultural and social production and reproduction.

More recently two contributions are emphasized: the first is compilation book *Critical Theory for Library and Information Science* by Leckie, Given and Buschman (2010), in which is found a systematization of concepts and works by the main authors with regard to critical theory for information studies. In a chapter titled “Social Capital, Symbolic Violence, and Fields of Cultural Production: Pierre Bourdieu and Library and Information Science,” Lisa Hussey (2010) reviews the core concepts of Bourdieu's work, such as habitus, power, capital and social field, and reviews research that employs Bourdieu's theoretical framework as well as prospects for future research aimed at the study of information centers as culture production spaces. The consideration of the author in relation to the use of Bourdieu's theory on the critical study of education and training in information studies is also highlighted. A second major contribution is an article by Cronin and Meho (2009), published in the *Journal of Information Science*, which reports a study on the spread of a “French theory” of social science and humanities in information studies, by means of a bibliometric analysis, considering articles pub-

lished in ten international scientific journals between 1955 and 2008. Bourdieu is named as the third most cited author in selected journals (after Bruno Latour and Michel Foucault), enhancing the role of such sociologists in the field of information studies.

It is noted that multiple paths have already been opened for a greater appropriation of themes, concepts and methods of the author of interest to the study of information issues, such as the understanding of knowledge from its concrete conditions of production as a social practice, the symbolic mechanisms of domination, the naming of social classification systems, the preponderant role of the state and the educational institution in the linguistic unification and reproduction of cultural and social structures, the strategies of agents across the symbolic power exercised in the fields and in society as a whole, the validity of the method and scientific rigor in the questioning of issues and construction of the object, together with the exercise of “reflexivity” or the objectification of the observer of phenomena of knowledge and information as social practices.

This situation indicates that the appropriation of sociology of knowledge produced by Bourdieu in information studies, can be expanded when its theoretical, conceptual and methodological axes are confronted with those of the authors of the information field itself, fostering interdisciplinary approaches to understanding social dynamics of information. The concepts of knowledge domains, domain analysis and discourse communities, developed by Hjørland and Albrechten, among other authors, related to the concepts of social field, scientific field, habitus and social capital produced by Bourdieu, can be an efficient theoretical and applicable tool to analyze specific domains and fields, combining the interests of the organization of knowledge to those of the sociology of knowledge. In this sense, guided by Hjørland's view of the social, cultural and historical dimension on the building of systems, languages and classification and other knowledge organization devices, Bourdieu's view would reflect the social conditions of production not only of knowledge, but of the means of its representation, organization and use (Nascimento and Marteleto 2008).

From the outset, there seems to be a common epistemological stance and approach to criticism between Hjørland and Bourdieu regarding the establishment of a comprehensive theoretical and methodological corpus in their respective domains or fields of knowledge. The former gathers the contributions of rational pragmatism, cognitivism and social constructivism to substantiate his domain analysis approach in order to unify different approaches to the study of knowledge and information, and the latter reclaims and updates the several objectivist (Émile Durkheim) and subjectivist (Max Weber) theoretical perspectives

in order to erect a critical sociology of knowledge that is able to unravel the mechanisms of symbolic power inherent in every social practice, including scientific activity, and thus to build unifying approaches in social science with no disciplinary barriers. Thus, the association of both authors with the unification of theories and methods in their respective disciplines is observed, as well as their views of the objects under study as social practices in the construction of culture, knowledge and information.

3.0 Birger Hjørland and Pierre Bourdieu in information studies: A path being built

The joint and complementary use of conceptual and methodological frameworks of Birger Hjørland and Pierre Bourdieu aims to build an approach enabling the analysis of certain collective and knowledge production environments, both from a structural point of view, considering the individual, cognitive and technical levels, and from a relational point of view, observing interactions, practices and positions of the actors. Therefore, it is necessary to delimit, in the first place, the epistemological and disciplinary grounds into which the two authors fall and from which analytical parameters they base their reflections on knowledge, pointing out that this approach only becomes possible when investigating groups, networks or communities, and not only individual knowledge structures.

3.1 Knowledge domain, discourse communities and domain analysis

Domain analysis as a method for studying areas of knowledge has a recent formulation, it was first defined by Hjørland and Albrechtsen (1995) as a proposal to investigate information along its social, historical and cultural dimensions, establishing a counterpoint regarding cognitivist approaches and those targeted at the construction and operation of information systems. Such a proposal details a social paradigm, based on social psychology, in sociolinguistics in the sociology of knowledge and sociology of science, resized by the later work of Hjørland himself (1998; 2002b), Albrechtsen (1993), as well as work by other authors, such as Ørom (2003), Smiraglia (2012; 2015) or Tennis (2003; 2012).

Hjørland (2002b, 258) considers:

Tools, concepts, meaning, information structures, information needs, and relevance criteria are shaped in discourse communities, for example, in scientific disciplines, which are parts of society's division of labor. A discourse community being a community in which an ordered and bounded communication process takes place. This communication is struc-

tured by a conceptual structure, by institutional enclosure, and by governance of discourse fora.

Hjørland believes that discourse communities constitute a way of studying and understanding the pragmatic, institutional and discourse dimensions of knowledge domains through a methodological expedient called domain analysis, which enables the diversion of the analytical focus of information studies oriented to individuals or computer networks, toward the cultural, social and scientific worlds. On the other hand, studies of domains would not generate an overall theory of domains capable of directing the world of professional practice and research procedures, since the domains are not fundamentally similar and the theoretical approaches should consider different discourse communities (Hjørland 2002a, 422). The "domains" or "collective fields of knowledge" would constitute the units of analysis for information science (Hjørland and Hartel 2003, 125) and a methodological paradigm for knowledge organization (Smiraglia 2015).

Domain analysis, on the other hand, would offer a theoretical perspective able to function as a comprehensive theory for information studies and knowledge organization (Hjørland 2004a, 17), since it: "connects theory and practice, has a coherent view of all major concepts in IS and provides an identity for IS consistent with the history of the field." This approach (18): "emphasizes the internalization of culturally produced signs and symbols and the way cognitive processes are mediated by culturally, historically and socially constructed meanings."

Hjørland points out, however, his agreement with 'pragmatic realism,' which would allow an understanding of the closest knowledge of the paradigms prevailing in the domains, associated with the information potential of documents (20): "whether these are recognized by users or by the discourse community." He clarifies the technical and pragmatic intention of domain analysis by remembering that it is oriented toward practical goals of indexing and retrieval of information, and therefore, it would not depend only on "users studies," but mainly on methodological and epistemological standards.

From a reflection on "social and cultural awareness and responsibility" (SCAR) in the field of information studies and information practices, Hjørland (2004b, 71) emphasizes the importance of ethical and pragmatic criteria in information studies and in the organization and classification of knowledge, without sacrificing the rigor of the theoretical and methodological procedures. In order to reflect on the ideology in practices and representations of the researcher, he points out that there are mechanisms in individuals, usually unconscious, that lead them to perceive their own gains as natural and to agree with discoveries, theories, ideas and methodologies confirming the legality

of those benefits. Approaching the concept of habitus (Bourdieu 1980, 102), he notes that individuals tend to collect information that confirms their ideas, and to reject information that contradicts their beliefs (Hjørland 2004b, 79), which is also true for scientific research and existing paradigms in the several domains. Bourdieu (1980, 102) reflects that habitus tends to ensure its own permanence and resistance to change by means of selection in relation to new information: “rejecting, in the event of accidental or forced exposure, information able to put accumulated information into question, and, especially, disadvantaging the exposure to such information.” The *homo academicus* (Bourdieu 1984) itself, whose practices are also part of a domain or social and historical field, would not be free of its own positions and representations of the world it observes and of which it is part.

3.2 Knowledge, social field and habitus

For the purposes of this article, which is to suggest a dialogical partnership between the principles of knowledge organization and the sociology of knowledge in the context of research in health domains, it is important to remember the critical position of Bourdieu in relation to the opposition, current in theories of knowledge (in art, philosophy, science), between internalist and externalist interpretations. The first, internalist, argues that in order to understand art or literature one must simply read the texts, which Bourdieu (1997, 13) calls the “fetishism of the autonomous text,” which would be the perspective developed by semiology and currents of postmodernism. The second interpretation, externalist, usually represented by (13): “authors who call themselves Marxists,” tries to relate the text to the context and intends to interpret the works by placing them in relation to the social and economic world. In the case of science, there are views describing its continuing process as a kind of “parthenogenesis ... science is engendering itself devoid of any intervention of the social world.”

The notion of field was produced to escape these dichotomies (14):

My hypothesis consists of assuming that between these two very distant poles ... there is an intermediate universe, which I call the literary, artistic, legal or scientific field, that is, a universe in which agents and institutions that produce, reproduce or disseminate art, literature or science are included. This universe is a social world like the others, but obeys more or less specific social laws.

Bourdieu (2001) points out the importance of the idea of reflexivity. Reflexivity refers to the need to subject science

to a historical and sociological analysis, which allows those who do so to understand the social mechanisms that guide scientific practice. Reflexivity goes beyond the experience of the individual researcher to encompass the organizational and cognitive structure of its disciplinary field, its objects, theories, discourses, truths and institutions.

The concept of practice is another key concept in his thinking, which refers to a dispositional approach to action, built based on some main concepts: habitus (structuring structures), field (structured structures), and capital. According to Bourdieu (1997, 176) the actions and behaviors of social agents are generally a non-reflective expression of dispositions, capabilities and habitus acquired in a field of practice, often guided by a “practical sense” rather than by a “rational calculation.” Habitus is a “practice generator” principle and should not be analyzed only for its exteriorities, or reduced to a purely cognitive view (Bourdieu 1984, 133). The locus of conducting practices and the exercise of habitus are the social fields, as a result of a historical process of autonomy and differentiation, which has objects, interests and rules that are relatively autonomous and which they are free to establish. According to Bourdieu, this process of differentiation of the social world produces differentiation of the ways of knowing the world, because each field represents a fundamental point of view about the world and creates its own object and ends, in itself, the principle of understanding and of explaining that befits this object (Bourdieu 1977). The actors that fill the structural field space develop strategies for their reproduction and replenishment, from their relative positions in relation to other actors, associated with owning credentials of degrees, diplomas, networking and social origin, among other elements valued by the field. Each field is therefore a battleground of symbolic struggles.

3.3 Knowledge domain and social field

A comprehensive theory of domains from the practices comprising the structures of information systems (documents, individuals, objects) seeks to elucidate the behavioral and cognitive aspects of knowledge in the domain. From this perspective, discourse communities are constituted as configurations formed from “epistemic attitudes in the context of a domain” (Hjørland 2002b, 257). Bourdieu produces the theory of practice to combine the principles of objectivist and subjectivist currents in the study of the structure of social fields and the positions and arrangements of each of the actors in each field as well as in society as a whole, their habitus, which supposes the exercise of reflexivity in relation to objects, methods, epistemes and the theories of the researchers who seek to study these universes, in which practice is located a symbolic power.

BIRGER HJØRLAND	PIERRE BOURDIEU
Comprehensive theory of domains	General theory of fields
Pragmatism, cognitivism, social constructionism (C. Peirce; J. Dewey; W. James; R. Rorty; J. Spera; B. Derwin)	Objectivism-structuralism (E. Durkheim; C. Lévi-Strauss) and subjectivism-phenomenology (M. Weber; E. Husserl)
Approximation among IS approaches	Building a unified Social Science
Domain - international order of labor	Field - empowering social spheres
Discourse communities	System of positions and social dispositions
Analysis of discourse communities	Social analysis of social fields
Knowledge domain	Social field
Discourse language associated with concepts	Language associated with symbolic power
Social and cultural awareness and responsibility	Reflexivity of the researcher and the research tools
Historical dimension of the domains	Historical existence of the fields
Pragmatic approach	Practice theory
Pre-conditions of the knowledge process	Habitus and capital
User	Actor or social agent

Table 1. Epistemological, thematic, conceptual and methodological axes of Hjørland and Bourdieu

In addressing Hjørland's knowledge domains, language serves to express the semantics of a domain, of classification, thus, specialized and grounded in standards and documentary forms. For Bourdieu, language has a symbolic function and corresponds to a "linguistic habitus," since it is the product of social conditions, or a product of the adjusted discourse to a situation, market or field (Bourdieu 1984, 121).

Bourdieu employs socio-analysis as guidance for fields of study in order to grasp the social reality of their cultural, political and economic aspects. The study of knowledge domains, according to Hjørland, is conducted by domain analysis, which is especially interested in information systems and their users, and in considering the historical dimensions in addressing domains. For Bourdieu, fields cannot exist and remain without history, because in history they are formed in a process of autonomous production and reproduction. For investigations of social fields Bourdieu develops a theory of practice, based on conceptual operators seeking to expose the dualities between objectivism and subjectivism, rejecting the stability of social structures and placing the actions on the complete system of relations in which and by which they are held, refusing to apply classification systems to the individual subjects and objects.

Pragmatism is a theoretical approach employed by Hjørland, who seeks to answer practical questions focused on the demands and the needs of users of information. Therefore, the pre-existence of knowledge by the user determines the production of a domain. For Bourdieu, habitus as a practice generator refers to the social and cultural conditions that a particular actor experiences and the ways it embodies the "state of knowing." Transversalities and

gradations of the social appropriation of knowledge are, for Bourdieu, forms of capital, namely social, scientific, cultural and symbolic. For Bourdieu actors are mobilizers of human action who establish sociability, influencing and being influenced by a system of positions and social dispositions. Hjørland is interested in users of information who influence the production of knowledge, by the information demands evoked in the domain.

The correlation table above summarizes the epistemological, thematic, conceptual and methodological axes of Hjørland and Bourdieu, indicating both the affinities of themes and objects, and the theoretical and epistemological differences that can be invested in the analysis of domains in an interdisciplinary perspective.

4.0 Health as a knowledge domain and a scientific field

Nascimento and Marteleto (2008) studied information practices in the field of architecture as a form of action that gives identity to a group or community, employing in a supplementary manner domain analysis (Hjørland) and the sociology of knowledge (Bourdieu), which enabled the understanding of how information practices are formed in a knowledge domain. This interdisciplinary combination allowed one to interpret the social, cultural and historical dimensions that make up the process of building information. The study was based on the assumption that (399): "The investigation of domains and work groups, disciplines or discourse communities, as opposed to the individual knowledge structures, allows us to hypothesize that, in this way, methodological influences from social sciences in the information science are inevitable." In this sense,

Hjørland and Albrechtsen (1995, 400) had explained the three requirements necessary for the concept of domain analysis: a) following social science methods, b) observing social actors, and c) analyzing a collective external to the subjectivist positions.

Hjørland (2002a; 2004a) lists eleven theoretical and methodological approaches to conducting a domain analysis, some more directly for the production and operation of information systems or mechanisms of classification, organization and retrieval of documentary information operative in a domain, others related to the analysis of epistemology, languages and interactions in discourse communities.

Guided by pragmatic principles of Hjørland and the sociologized view of Bourdieu, the following major methodological approaches are selected for the study of health as a field and domain that can benefit from the theoretical tools and applications of the two authors: a) empirical user studies, b) bibliometric and informetric studies, c) historical analysis, d) document and genre studies, e) epistemological and critical studies, and f) studies of structures and institutions in scientific communication (Hjørland 2002a, 424-425). Smiraglia (2015) carried out a revision of domain analysis in literature specific to knowledge organization (KO) starting from the eleven approaches listed by Hjørland in 2012. Smiraglia verified that the majority of studies use empirical methods such as informetric or terminological techniques, while others employ discourse analysis, genre analysis, and epistemological analysis, concluding that (28) “fewer critical studies and historical analyses have been generated.”

Tennis (2003, 2012) notes the importance of the domain analyst clarifying the purpose of the study, that is, aimed at basic research (descriptive domain analysis) or the planning and construction of an information system (instrumental domain analysis). Although the reflections to be presented on health are not a domain analysis on his terms, we use the path pointed out by Tennis (2012) in order to emphasize that it is a descriptive approach designed to provoke dialogue between perspectives of knowledge organization and the sociology of knowledge.

As a guideline to the studies on health, three analysis plans were employed which will be listed in the next section, starting from a triangulation of qualitative and quantitative methods, that is, depth and narrative interviews, direct observation and document analysis, combined with quantitative methods, the analysis of social networks as well as bibliometric and informetric measures. Given this approach, domains or fields are analyzed from both a structural point of view, through a study of published literature and of the groups or institutionalized research collectives, as well as a relational point of view, through an analysis of the discourse and of the iteration patterns

among the authors, with consideration for the synchronic dimension of the field or domain as well as its diachronic dimension, and with an observation of its cultural, historical and social dynamic. The empirical dimension of the research was represented by groups and research collectives in the areas of public health and human genetics.

4.1 *The context and institutional plan*

The health field in Brazil has epistemological, social, political and historical singularities that configure a domain or interdisciplinary field of complex and multifaceted knowledge. In terms of public policies for research in the health field, the Ministry of Health established the National Policy for Science, Technology and Innovation in Health (PNCTI/S), which defines health research as the set of produced knowledge, technologies and innovations that result in improved health of the population (Brasil 2008). In this sense, health research must go beyond the disciplinary perspective and go toward an intersectoral perspective, including all clinical, biomedical and public health research related to health science, as well as that carried out in the humanities, applied social science, mathematical science and earth, agricultural, engineering sciences and biological science to maintain this link.

In 2007 the Ministry of Health, along with two international organizations, produced and published the document “Why research in health?” to discuss and make recommendations on the gaps between the production of knowledge by research sectors and its application in health policies and actions. According to this document (Brasil. Ministério da Saúde 2007, 6 *translation by the authors*): “Similarly in other countries, the main challenge, in Brazil, is the ability of integration of research findings by health systems and services. It is necessary to invest in efficient strategies of distributing information in order to reduce the gap between new knowledge and its use for the benefit of the entire population.”

The definition of health used by the World Health Organization which states that “health is a complete state of physical, mental and social well-being and not merely the absence of disease” indicates that the range of research needed to protect and promote health and reduce disease is much broader and should recognize the links between health and social, economic, political, legal, agricultural and environmental factors, among others. Disciplinary diversity and variety of health questions related to local, regional, national and international levels configure a domain and an extensive knowledge field related to the understanding of its scheme of production, organization and dissemination of knowledge.

In this sense, how are we to consider the extent of the knowledge domain (Tennis 2012) and set it as a social

and scientific field (Bourdieu 2001)? From the understanding that knowledge is produced by specific and peculiar social practices in each field, what are the analytical and interpretative tools necessary for the observer of domains to study the hybrid mediations between different disciplines or sub-fields and between the different sectors and actors of health policies, science and technology, management, the instances of participation and social control in health? What is the relation between research agendas established by health policies and knowledge production and organization processes in discourse communities?

In order to reflect on these issues, it is relevant to resort to what Hjørland (2004b) calls epistemic postures in the context of a domain and to what Bourdieu (1975) names as positions systems and dispositions in the scientific field for understanding that health is an interdisciplinary field in the horizontal plan, which brings together life science and other domains, such as health social sciences and humanities. Also, in the vertical plan, where there are considered to be different forms of knowledge, discourse and information about health, of common sense and scientific knowledge, of services and health systems, of the various media and information and communication mechanisms and of knowledge and popular practices. Such a domain critically reveals different cultural, social, political, historical, economic aspects of the production processes, organization and dissemination of knowledge. Configured as such, it designates a field of knowledge and practices, which includes health as a social phenomenon, and consequently, of public interest.

4.2 *The relational plan*

In the scientific field, the social dimension of knowledge can be observed when considering the ways in which epistemic individuals (Bourdieu 2001) organize discourse communities through scientific practices forming knowledge domains. The links established between the actors can provide indicators of the social energy that actors release in the field, through their relative positions in relation to other actors, capable of allocating social capital to actors and to the field itself. In this case, the social capital in a discourse community such as health is associated with the group's mobilizing capacity and the formation of hybrid networks with actors in and out of the scientific field related to peer recognition, access to sources of financing, links with actors of the management field and health policies, among others. Researchers in this field constitute hybrid networks (social, epistemic, political) gaining prestige by both the accumulated scientific capital in the field itself, and by the social capital acquired by the different relationships with actors from other fields.

The concept of field in this case serves the investigator of domains to locate the social and institutional place of the actors over which questions about the production, mediation and the use of information are made in an interpretive perspective that places the discourse communities in the center of such questions. Associated with the relations of researchers in social networks, it is clear that every discourse community, included in social fields or domains, has an interest and historicity, and its constitution derives from the institutionalization of certain practices, of positions of the actors and the relationships they build. In the health domain, the field concept recalls the virtue or the need for historical and social contextualization of each actor, bringing to light the spectrum of languages, discourse and fundamentally the views, specific divisions and interests of actors that structure and standardize their procedures through their practices.

A relational approach to the domain or sub-domains of health should study the formation of research networks or collectives, with the help of an information metrics methodology, combined with qualitative-hermeneutic methods and social network analysis approaches in order to investigate the social and info-communicational dimensions of scientific practices in a domain in which readings regarding what is "health" are multiple and diverse, and, consequently, there are symbolic disputes over production, organization and dissemination of knowledge practices among institutional actors.

4.3 *The plan of production and dissemination of knowledge*

The diversity of themes, views and divisions in the health field is also revealed when models and criteria of production, distribution and evaluation of publications on health are taken into account. One of the greatest challenges in this field, as it is constituted, is circulating information among the scientific, professional and mass media spheres and the population. Several information and communication mediations are necessary at various levels to promote the circulation and appropriation of knowledge and the construction of health practices and knowledge. On the other hand, an enhancement needs to be stressed in relation to signs that a genealogy of health information allows to emphasize with respect to the diversity of interests at stake over the field construction process, in which different concepts and epistemologies regarding health are observed, seeking hegemony in every historical juncture (Moraes and González de Gómez 2007).

The editing and publication system reveals both the complexity of channels and vehicles necessary to the processes of production, organization and dissemination of knowledge, and that of an international organization and evaluation system of scientific activity, which is structured

by means of publications, especially scientific journals. This situation can be questioned by the scholar of knowledge domains and scientific fields by means of the ideas of interdisciplinarity and internationalization of health disciplines. The former, interdisciplinarity, corresponds to the composite constitution of the field among clinical medicine, biomedicine and social science in health. The latter, internationalization, refers to the universal or globalized system of evaluation and organization of the scientific research system and knowledge production through models of valid publications for all countries, despite their specificities related to local issues, particularly in a field that deals with a multifaceted object, such as health, which corresponds to cultures, representations and living conditions of populations (Marteleto 2011).

Therefore, the formation of two parallel systems can be observed: a system of research and production of knowledge and a system of editions and publications, that establishes a hierarchy between publications and, consequently, between knowledge they diffuse. In this light, it is important to reflect about the process of production, publication and organization of health knowledge through the modeling and classification of scientific publications, given that published literature forms the material from which domain studies are mainly constructed. It can be understood that the field or health domain needs different modalities and genres of production, communication and diffusion, produced through a dialogue among the research sector, the society and services and health systems, despite the universality expected from all scientific disciplines. It is therefore important to recognize these specifics with the goal of reflecting about appropriate approaches to the organization of knowledge in health, given that other processes such as access, diffusion, appropriation and use of knowledge depend on its organization.

5.0 Conclusion

This article aimed at reviewing and updating some reflection axes around interdisciplinary spaces for dialogue between knowledge organization, information studies and the theories, concepts and methodologies of social sciences, investing in epistemological lines of information from scientist Birger Hjørland and sociologist Pierre Bourdieu. The subject matter was to establish some counterpoints and supplements between the two theoretical fields, in order to promote dialogue between the areas of the organization and sociology of knowledge. The concepts of knowledge domain, discourse communities and some expedients of the domain analysis method (Hjørland) and of the social field, scientific field, habitus and capital (Bourdieu), were explored and then directed to indicate analysis paths of the health field as a knowledge domain and a scientific field.

It is observed that in the health domain, although it is well served from the point of view of the sophisticated information systems in force in the field, there are gaps concerning attitudes and critical procedures for an information action referring to the social conditions of production of knowledge. The flow of theories, concepts and methodologies between the organization of knowledge and the sociology of knowledge could favor the generation of new and renovating theoretical and methodological elements for information science to study and understand complex knowledge domains and social fields like health.

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