



# Conceptions of “information poverty” in LIS: a discourse analysis

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## Abstract

**Purpose** – To provide an analysis of the notion of “information poverty” in library and information science (LIS) by investigating concepts, interests and strategies leading to its construction and thus to examine its role as a constitutive element of the professional discourse.

**Design/methodology/approach** – Starting from a Foucauldian notion of discourse, “information poverty” is examined as a statement in its relation to other statements in order to highlight assumptions and factors contributing to its construction. The analysis is based on repeated and close reading of 35 English language articles published in LIS journals between 1995 and 2005.

**Findings** – Four especially productive discursive procedures are identified: economic determinism, technological determinism and the “information society”, historicising the “information poor”, and the library profession’s moral obligation and responsibility.

**Research limitations/implications** – The material selection is linguistically and geographically biased. Most of the included articles originate in English-speaking countries. Therefore, results and findings are fully applicable only in an English language context.

**Originality/value** – The focus on overlapping and at times conflicting discursive procedures, i.e. the results of alliances and connections between statements, highlights how the “information poor” emerge as a category in LIS as the product of institutionally contingent, professional discourse. By challenging often unquestioned underlying assumptions, this article is intended to contribute to a critical examination of LIS discourse, as well as to the analysis of the discourses of information, which dominate contemporary society. It is furthermore seen to add to the development of discourse analytical approaches in LIS research.

**Keywords** Information science, Librarianship, Information society

**Paper type** Research paper

## Introduction

“Information poverty” and with it the category of the “information poor” as a concept in library and information science (LIS) can be traced back at least as far as the 1960s (Yu, 2006). More recently it emerged as an integral element of the information society debates and frequently appears paired with references to ICTs and allusions to the

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digital divides. It has come to subsume a curious mix of groups, all of which are primarily thought of as afflicted by other forms of deprivation or deficiency, and which are constructed on the basis of this “lack”. Among them are rural people, the working class, the elderly, women, the unemployed, the handicapped, the homeless, ethnic minorities, and most prominently developing countries – either individually or imagined as a homogeneous category.

Based on a Foucauldian understanding of discourse, the aim of this article is to analyse and deconstruct the notion of “information poverty” as it emerged more recently in library and information science and to examine how it results in the objectification of the “information poor” as a group, which is then subject to intervention. It is intended to shed light on concepts, interests and strategies leading to this construction, and thus to expose as well as to challenge some of the underlying assumptions.

By characterising distinct groups of individuals, organisations or even countries by their perceived lack of information, the underlying assumption has to be that there is a “right kind” as well as a “right amount” of information. It can be argued that existence and nature, as well as position and ideal quantity of this type of information are determined, produced and maintained from a privileged position, by systems of authoritative institutional discourses.

Constructedness and constructiveness of poverty itself as a problematization has been described very pertinently by Arturo Escobar (1995) in the context of development. He argues that as an organising concept poverty came to underpin the construction of the “developing world” and with it led to the creation of an entire discursive formation based on notions of development. This led to the emergence of new discourses and practices shaping “the reality to which they referred” (Escobar, 1995, p. 24). As a result, Escobar (1995) maintains, not only did the solutions begin to appear self-evident, but also the necessary instruments developed into quasi-natural and seemingly obvious parts of these, now almost indisputable, solutions by being posited as neutral and universal devices.

By pairing information with poverty, the concept of information becomes one that implies the possibility of scarcity and leads to a commodified character of information as an alienable good. Furthermore, this strong connotation of the economic and material side of information tends to convey images of information as an almost homogeneous entity. It consequently leads to a neglect of social and communicative aspects of information and in particular of information use that would allow for a serious engagement with different types of informational practices by considering their various social conditions.

Christine Pawley (2003) discusses the process of discourse synthesis, where the combination of two concepts results in the creation of a new concept with a different understanding, in the context of her investigation of information literacy as a “contradictory coupling”. The combination of information and poverty appears to be just such a contradictory coupling, which leads to a new and extended, yet at the same time curtailed concept, in which both parts change their individual meanings to form and contribute to a novel and distinct notion. Likewise, in “information poverty” as in information literacy two very powerful and politically charged concepts are coupled, both related to specific sets of agendas relevant in contemporary society. The resulting compound emerges entangled with strong images and connotations, and related to

particular ways of speaking that can be put into practice in the interest of different groups.

In LIS, as Liangzhi Yu (2006, p. 230) points out, the literature on “information poverty” is situated within a vast array of literatures on “information inequality”, “information divide”, “information gap”, and similar compounds. According to Yun, all are anchored within a research tradition stemming from the 1960s and 1980s, yet all take up a particular perspective. Yu (2006) distinguishes between an ethical, a political-economy, a social constructivist and a cognitive science perspective, each with its specific interpretation of possible causes and sets of policy recommendations. Yu (2006) also specifically distinguishes this LIS research tradition on “information inequalities” from a newer set of literatures and debates on the “digital divide” or “universal access”, which is primarily bound to the emergence of the internet.

This is an important and interesting observation which in its general outlines certainly holds up. At the same time, and specifically in the last decade, the “digital divide” and related concepts have certainly penetrated the LIS literature, not infrequently bound to a specific kind of technological determinism. Yet at the same time, as we will become clearer below, it is also anchored in a strong library tradition, which seems particularly evident in what Yu (2006) classified as the ethical perspective. On the other hand the “information poverty” concept, amongst others, also makes its appearance in the more general, wider area of ICT debates and policy discussions, specifically those concerned with development issues. For example, Merridy Wilson (2003) points to the way in which of “information poverty” is operationalised as a category in development discourse. In an analysis of international public ICT debates, she found its construction to be largely dominated by technological determinism as well as by teleological or evolutionary models of development. Furthermore, Wilson (2003) shows that the dichotomy between the so-called developed and developing world is carried over into the ICT discourse and subsequently extended to contribute to the construction of the “information poor” in this context.

Usually the existence of what can be described as a professional caste is instrumental for, but also the result of, such a development. This insofar as it guarantees the development and application of institutionally sanctioned expert knowledge and thus controls production as well as productiveness of discourse. This investigation of the notion of “information poverty” within the realm of LIS, here taken to include LIS research as well as practice, can be understood as an assessment of its role as a constitutive element of such a productive professional discourse. In turn it is also an assessment of the productive strategies contained within such a system of professional discourse, usually posited as expert knowledge, which forms the basis for intervention. At the same time, it should also be seen as an attempt to contribute to a critical analysis of the dominant “discourse of information” (Day, 2001, p. 115), which functions inside as well as outside of LIS. A discourse which, as Ronald Day (2001, p. 115) maintains, is formed through tropes, i.e. figures of speech, that are generated from the trope of information and that leads to a globally spread “ideology of information and communication”, whose cultural and social contingencies remain largely unquestioned.

#### **Discourse analysis and Michel Foucault’s notion of discourse**

Starting from a Foucauldian notion of discourse, an analysis of “information poverty” can be achieved by positioning it as a distinct concept or, to use Michel Foucault’s term,

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as a statement and by weighing it up in its relation to other statements within, but crucially also outside the area of LIS. A Foucauldian approach seems to lend itself particularly well, since it considers not only the central role of language for the formation of knowledge and the construction of realities, but significantly discourse and informativeness are seen as institutionally contingent (Frohmann, 2004). More to the point, knowledge itself is understood as institutionally legitimised and, as Stuart Hannabuss (1996, p. 97) outlines, in a Foucauldian framework “[k]nowledge is imbued with power when it is embodied in professional groups or cadres.” Thus, studies of dominant discourses which take the institutionalised and authoritative character of knowledge into consideration “provide ever-increasing insight into the constructed meanings of information and communication language” (Hannabuss, 1996, p. 97).

As a theoretical framework this has certain implications. Therefore, it is necessary to briefly outline what a Foucauldian notion of discourse implies and what it will be taken to mean throughout the rest of this article. In this context the related concept of the statement will be discussed and the interdependent character of power, knowledge, and specifically expert knowledge will be considered briefly. In the course, this clarification of the meta-theoretical assumptions and terminological “tools” will give way to a more precise delimitation of this article’s scope. Subsequently, and prior to embarking on the investigation of the notion of “information poverty” itself, a brief sketch will be provided of the applications discourse analysis and in particular Foucault’s understanding of discourse has found in LIS research.

#### **Foucault’s understanding of discourse and the concept of the statement**

The concept of discourse is rooted in a social constructionist tradition and it originates in the structuralism of Saussurian linguistics, or more precisely in the modifications structuralism underwent in the name of post-structuralism in the 1960s. In a departure from the structuralist focus on abstract and stable, rule-bound systems of differences, post-structuralist approaches began to emphasise practices, in particular language practices and the shifting relations of signs and thus introduced a perspective that allowed the focus to shift from the continuity of events to discontinuities and ruptures. The concept of discourse is based upon the, what could be called, Wittgensteinian premise, that the meaning of words arises from their use and at its core it privileges the role of language as a practice and assigns it centre stage for the creation of knowledge and the negotiation of truths.

On a very prosaic level discourse refers to “what has been said”. Yet, discourses are more than simply groups of linguistic signs. They are productive, in the sense that as practices they “systematically form the objects of which they speak” (Foucault, 1972a, p. 49). Through discourses social realities are formed. Furthermore, discourse is seen as adhering to strict sets of rules and notably also as lacking agency. This lack of agency is contested and, together with Foucault’s refusal to talk in terms of ideology, it has routinely been criticised as precluding critical political analysis or intervention. However, as will be suggested later, Foucault’s understanding of power and knowledge and their relation to discourse can be interpreted as addressing this issue.

Discourses should neither be seen as monolithic entities, nor, akin to language, as systems offering endless possibilities for combination. Rather, they consist of limited numbers of so-called statements, which relate to each other in shifting, yet clearly regulated ways. More precisely, these statements are concepts, whose existence is based on reasons as well as conditions that are accounted for by the rules of the

discourse(s) which they form part of. Thus, while a statement is the basic element of discourse, it is not simply constitutive of it. Rather, discourse and statement should be seen as constitutive of each other.

Foucault (1972a) outlines two sets of characteristics, through which the identity of statements is achieved. These can roughly be summarised as internal conditions and external limits. Some of these are particularly relevant in the context of the present study and need to be considered in more detail. Among the first set, a statement's materiality is its most significant constitutive characteristic. In other words, a statement must have been realised and have a substance. Also, it must have been pronounced from a certain place, a certain position and at a particular time. Significantly, this place of enunciation is positioned at an institutional rather than an individual level. The second group of limits are those imposed by surrounding statements or neighbouring concepts. Crucially a statement's position is neither fixed nor absolute. Rather, they exist in systems of dispersion, in their relations to other statements, and these relations determine how and by which rules they can be employed and also in which formations they can appear. This contributes to a statement's stabilisation, as a consequence of which it becomes repeatable. Whereas being repeatable is the statement's fundamental characteristic that renders it at all recognisable as such.

Furthermore, Foucault (1972b) describes three sets of procedures that regulate production, control, and organisation of discourse in society. Externally these are rules of exclusion, namely the taboo, the division into reason and madness, and the division between true and false. A second set of procedures, consisting of the commentary, the author, and disciplines, guarantees the internal delimitation. Finally, discourse is understood as controlled by an additional group of rules, which "relate to the conditions under which it may be deployed" (Foucault, 1972b, p. 224). These restrictions are implied in verbal rituals, in "the fellowships of discourse" (Foucault, 1972b, p. 225), in doctrines, and in social appropriation. Put simply, these rules determine who can utter truth, in which manner, under which conditions, in which capacity, and from which position.

#### *Power, knowledge and expert knowledge*

Foucault's conception of power contributes significantly to his concept of discourse and especially to its analysis. In particular in his later writings it is a central element and can be said to address the lack of agency that was mentioned above (e.g. Mills, 2003). In short, power is not perceived as a force, which is in the possession of an individual or a group and which is exclusively oppressive and used to dominate the other. Rather it is understood as a non-localised and crucially as a productive function that circulates in a "net-like organisation" (Foucault, 1980a, p. 98). In this sense, discourse can be regarded as a result of the productivity of power, while inversely the examination of discourse enables the analysis of "the related effects of power" (Foucault, 1980a, p. 71). It is important to note, however, that saying power is productive, does not necessarily mean to say it is positive. As Gayatri Spivak (1996, p. 151) points out, in her reading of power/knowledge, "[t]here is no need to valorize repression as negative and production as positive".

Closely related to this view of power is Foucault's understanding of knowledge. Knowledge and power are seen as interwoven and interdependent, one constitutive of the other. More precisely, the production of instruments for development,

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measurement, collection and distribution of knowledge are seen as constitutive of power, while at the same time organisation and circulation of these “apparatuses of knowledge” (Foucault, 1980a, p. 102) are the effect of power.

Consequently, expert knowledge can be understood as a form of knowledge that functions as a disciplinary system of control for the production of truths. It is the result of so produced instruments and apparatuses from specific institutionally privileged positions. Expert knowledge emerges from discourse and at the same time contributes to its construction. It is socially negotiated and its status and role depend on being accepted by those that are subject to its disciplinary control (Sundin, 2006). Moreover, the shifting relations between power and knowledge contribute to status and limits of a professional group’s knowledge claims (Sundin, 2003). This has to be seen in the context of the institutional character of discourse. As Foucault (1991, p. 61) insists, discourse should not be related “to a thought, mind or subject which engendered it, but to the practical field in which it is deployed”. Thus, discourse and its effects can never be related to an agent’s conscious intentionality. This also gives way to a better understanding of truth, which is seen as the direct result of power/knowledge and consequently formative of discourse. “Truth is to be understood as a system of ordered procedures for the production, regulation, distribution, circulation and operation of statements” (Foucault, 1980c, p. 133). In short, what is at issue is how truth is produced, not of what it consists.

The concept of expert knowledge or expertise is closely related to that of the profession. Whereas the definition of what constitutes a profession in relation to other forms of occupations is not uncontested, in particular in the case of librarianship (e.g. Winter, 1988; Abbott, 1998). Yet, for the purpose of this article, the term profession will be used to signify an institutionalised field of practice that is generative of a certain discourse and that exerts control through the knowledge that emerges from its discourse. At the same time, employing discourse in the singular does not mean to imply that professions are homogeneous fields speaking with one common and unified voice and that are clearly delineable from others. Rather, discourse and with it profession, in the sense introduced here, also incorporate contestations, struggles over meanings and conflicting positions as well as of course the influence of other fields of practice that interlink, overlap and which contribute elements with pre-constructed meanings (comp. Pêcheux, 1982).

#### *Discursive procedure*

The outlined reading of discourse, as a productive, socially constructed regime of knowledge and truth, that forms the social reality about which it speaks, will provide the backdrop for the subsequent analysis.

However, before proceeding, it is crucial to note that, as Radford and Radford (2005) point out, while Foucault’s work is interspersed with descriptions of discourse and of the often synonymously used discursive formation, he does not provide one conclusive definition. Rather, in accordance with post-structuralist approaches in general, discourse is perceived of as equally shifting in its relations as any other statement and consequently its meaning remains fluctuating. While discourse analysis, intimately connected with the name of Foucault, is often referred to as a method, a Foucauldian “method” as such, strictly speaking, does not exist. Foucault provides apparatuses of thought that enable new perspectives on what is usually accepted unquestioningly. To argue with Day (2005, p. 590), “[d]iscourse analysis in Foucault’s work is less a method

and more a series of engagements with historical events and documents that identify techniques and structures through which power is captured, intensified, and directed toward certain productive and profitable ends.” Nevertheless, it is still possible to fruitfully utilise Foucault’s concept of discourse, in particular by emphasising its conditions. Therefore, to recapitulate, in the following discourse will be understood as a productive practice, which obeys specific rules, is generative of knowledge and related to a particular field of use which, through discourse, is related to other fields and to other practices.

In this article, library and information science is posited as such a field of deployment. In other words, LIS is assigned the role of an internal delimitator of discourse and it is taken to contain, provide and control the rules for the production of discourse, more precisely for the formation and dispersion of statements.

Statements can also be envisioned as tying into and drawing on various fields of use, and with it quite distinct and often readily identifiable external discourses, which lend it significance and thus contribute to its construction. In this sense, this article does not concentrate on the examination of an “information poverty discourse”, but on role and alliances of “information poverty” as a statement within the disciplinary professional discourse of LIS as a practical field of use. Specifically, the focus is on discursive procedures that are the result of these various alliances and connections, and the themes that lead to its formation and stabilisation. Discursive procedures can be imagined as the way in which a statement’s position, through iterant alliances and connections, becomes inscribed into a discourse and how this leads to a temporary stabilisation. They can be the result of recurring alliances between statement within a discourse, but also they can derive from overlaps between different discourses as fields of use.

#### *Discourse analysis in LIS research*

With the emergence of social constructionist and post-modern approaches in LIS research in the 1990s, Foucault’s theories and in particular his concept of discourse, and with it his understanding of power, have found resonance in the field. However, although discourse analysis has some tradition in LIS research, it has only recently become more visible and more frequently used as a tool or framework. As a potentially powerful research method for library and information science it was most prominently considered and described by Bernd Frohmann (e.g. 1992a, b, 1994).

In the literature three main approaches to discourse analysis can be made out. Firstly, some articles are solely dedicated to general theoretical considerations (e.g. Budd and Raber, 1996; Introna, 1999; Radford, 2003; Day, 2005; Radford and Radford, 2005; Talja *et al.*, 2005) or concentrate on outlining possible fruitful approaches to discourse analysis for LIS research (e.g. Frohmann, 1994; Olsson, 1998, 1999). Secondly, a number of articles employ discourse analytical methods for the qualitative analysis of interview data (e.g. Talja, 1999; Jacobs, 2001; McKenzie, 2003; Savolainen, 2004). Most who follow this approach, while generally being rooted in social constructionism, have their theoretical grounding in discourse psychology. Others combine the discursive analysis of interviews with that of documents (e.g. Talja, 2001). Finally, in contrast, a number of studies are based on the investigation of what are considered naturally occurring discourses, i.e. they occur prior to and independent of the research. In most of these, yet not all, cases Foucault’s understanding of discourse is mobilised. Here a strong tendency exists to analyse the literatures of the field, that is LIS’s

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institutional or professional discourse (e.g. Frohmann, 1992a, b; Day, 1998; Tuominen, 1997; Hedemark *et al.*, 2005, Andersen and Skouvig, 2006). Others examine closely related areas (e.g. Radford and Radford, 2001; Chan and Garrick, 2003; McNabb, 2003; Thoms and Thelwall, 2005).

Starting from a Foucauldian approach, Gary Radford and Marie Radford (2001) analyse representations of libraries and librarians in literature and popular culture and relate their negative image to a “discourse of fear”. Literary images of the library and the librarian are also at the core of Gary Radford’s (1992, 1998) re-assessment of Foucault’s essay “The fantasy of the library”, which he sees as providing a possible basis for a move towards a post-modern epistemology for library and information science. Andrew Chan and John Garrick (2003) investigate the discourse of knowledge management. They highlight how knowledge management discourse is anchored in the discourses of economics and capitalism and in doing so they emphasise the instrumentality of knowledge construction in the area. Richard McNabb (2003) approaches the field of scholarly journal publishing from a discourse analytical perspective. He shows how through scholarly journals a discipline’s authoritative knowledge is legitimised. Equally building on Foucauldian concepts, Lesley Thoms and Mike Thelwall (2005) attempt an analysis of identity construction on the internet by investigating the home pages of academic authors from a discourse analytical perspective.

A number of studies critically assess discourses that are constitutive of LIS research or practice itself. Using a Foucauldian approach, Bernd Frohmann (1992a, b) challenges some of the assumptions expressed in the dominant discourse of the cognitive viewpoint on information seeking and delivers one of the earliest, most critical and also densest realisations of discourse analysis in LIS. Kimmo Tuominen (1997) builds on the work of Frohmann and equally bases his investigation on Foucault’s concepts. He provides a critical assessment of the subject positions of the user and the librarian in subject-centred discourse. Mark Tyler Day (1998) combines various theoretical approaches in his discourse analysis of academic LIS literature on organizational change and anchors his results in a wide array of social theories. Sanna Talja’s (2001) study of music library discourses is the most comprehensive discourse analysis in LIS so far and it is also predominantly influenced by Foucault. She takes library policy statements as well as user interviews as her starting point for the identification of dominant repertoires. Jack Andersen and Laura Skouvig (2006) investigate the discipline of knowledge organization by combining Foucault’s understanding of discourse and power with Habermas’ theory of the public sphere. The user is at the centre of Åse Hedemark’s, Jenny Hedman’s, and Olof Sundin’s (2005) analysis. Yet, their investigation of user discourses in the field of contemporary Swedish public libraries has its starting point in post-Marxist discourse theory as developed by Ernesto Laclau and Chantal Mouffe.

The present investigation has to be seen as situated within the context of these latter approaches, insofar as it equally takes as its basis naturally occurring discourse constitutive of LIS research and practice. In this case, as it is manifest in the field’s journal literature, here understood as “artifacts of professional information” (Sundin, 2003, p. 182).

### **Material selection and research design**

The study is based on the repeated reading of 35 English language articles, published in scholarly and professional LIS journals between 1995 and late 2005, and the subsequent close reading of selected sections. Close reading has its origin in literary criticism. It describes a technique of repetitive, careful, and sustained reading, re-reading and subsequent analysis of usually short paragraphs of text.

The articles were retrieved from “Library and Information Science Abstracts” (LISA) and from “Library Literature and Information Science Full Text” by searching for “information poverty” or “information poor”. They were selected either because they deal directly with “information poverty” or the “information poor”, or because they refer to and employ the notion as an established concept. The selection is meant to represent a cross section of the available English language literature from this period, and it is not intended to be exhaustive.

Despite the inclusion of research as well as of professional journals, the majority of articles were found to be written from the perspective of librarianship. It should be noted however that this fact does not necessarily require the introduction of an opposition between theory and practice or between LIS research and librarianship. More precisely, while LIS research and professional librarianship form different practices and also engender different ways of speaking – and naturally LIS research equally constitutes a professional practice – it can, nonetheless, be argued that they constitute elements of the same discursive space and are also complementary. The concepts they give rise to, while undeniably diverging or fluctuating at times, also emerge from a close exchange between them and their resulting inconsistency is a necessary part of their existence. Therefore, attempting to establish a clear boundary between LIS research and librarianship does not seem fruitful for the purpose of investigating a concept like “information poverty”, which is rooted in academic, in professional, and also in what is considered popular discourse. Thus, for the purpose of this article, both are seen as situated within the same discursive realm, and the understanding of profession as a field constituted by its discourse, developed earlier, is essentially taken to include both. Moreover, as Bernd Frohmann (1994) maintains, specifically in its choice of data, discourse analysis necessarily transgresses these already blurry boundaries between research and practice.

This particular time frame was chosen, because the importance of the internet and especially the World Wide Web has increased considerably during this period. This has led to uncertainties and changes within the field, which have a strong impact on the concept of “information poverty”. To frame the analysis and to anchor it historically, a conference report from 1975 and a conference paper from 1986 were drawn upon. Having said that, while the concept of “information poverty” has clearly undergone a development, which to some extent is also considered in the present article, the main focus here is nonetheless on its expressions in contemporary discourse and it is not a strictly historical one.

The selection is linguistically and geographically biased and most of the included articles originate in English-speaking countries, albeit on all continents, except South America. Therefore, the results and findings are fully applicable only in an English language context. At the same time, given the spread and dominance of the English language, this makes it impossible to limit it to a particular geographical region, nor is this the intention.

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In the following, example quotations taken from the corpus are distinguished from other references by using a numbering system and square brackets. This serves the purpose of setting the analysed material apart from the literature used to support the analysis. Furthermore, not including the authors' names in the text is also intended as a deliberate form of depersonalisation. This seems necessary in order to present all material on an equal level and to avoid letting the focus shift away from the text and its institutional surroundings to the author. Moreover, in order to avoid emphasising individual texts or authors and to keep the attention on general tendencies, no references to the material are provided throughout the presentation of the analysis, other than to those articles that are quoted directly. The bibliographic information for the example quotations as well as for the entire corpus are listed separately from the references at the end of the article.

#### **Discursive procedures and themes**

Among the multitude of thematic strands and conceptual ties that form the notion of the “information poor” in the journal articles analysed, four particularly dominant groups of recurring discursive procedures and often strongly interwoven themes could be made out. The identification of certain recurrent and pervasive topoi and also of iterant rhetorical strategies led to the characterisation of the following procedures: economic determinism, technological determinism, a tendency to historicise the “information poor”, and finally an emphasis on librarianship's moral obligation and responsibility.

However, this is not intended to provide an exhaustive list, nor are these four themes equally prominent in the literature. While they were found to be the most assertive and productive themes and procedures, others could have been identified and in particular the divisions could have been made differently. For example, literacy and illiteracy are dominant, recurring issues and could have been investigated as constitutive of a discursive procedure. Similarly, references to the library's educational role and pedagogical aspects in general can be found throughout. Yet, in both cases, it was decided to position them as subordinate, contributing elements in other procedures, in order to highlight how they might be used in the interest of agendas that are not always immediately obvious.

#### **“Information poverty” as a societal deficiency and professional problem**

According to a report from the meeting of ASIS, the American Society for Information Science, in 1975 the then chairman called for the introduction of a “concrete information policy – aimed at equitable distribution of resources within society”. This had become necessary since in his view “the individual [was] fighting a losing battle for equal information access because corporations and government can assert the same access rights”. Therefore, the report continues, “what is needed, he suggested, is [...] a major remodelling of institutional structures aimed at lowering costs and improving access to the ‘information poor’ (including libraries) as well as ‘the information rich’.” [1, p. 2304].

Several things are of interest in this brief account. Firstly, the suggested information policy's stated goal is not equitable distribution of “information” or even equitable distribution of “access to information” in society, but equitable distribution of resources in general. Secondly, the line between “information rich” and “information

poor” is drawn between the individual on one side and the corporation and the state on the other. The difference between the two is anchored in their unequal access, i.e. the poor/individual being overpowered in the fight for access by the rich/state/corporation. Thirdly however, improvements should benefit both groups. Moreover, these changes hinge on structural changes within the institution. Finally, libraries are counted among those that can be “information poor”, thus forging an alliance between the individual seen as fighting the battle for access and the institution of the library.

The ASIS meeting in 1986 included a paper on “Informational Poverty”[2].

Here “informational poverty” is posited as a natural element of modern life, which is strongly associated with an excess, a “sea of information” on the one hand and censorship and control on the other, and as an all-encompassing concept that affects every society, in which individual members are not in a position to know everything that is knowable. It starts out by claiming:

Of the challenges facing an information society, the problem of informational poverty is taking on major dimensions [2, p. 69].

It concludes:

Informational poverty is not simply a malady of the economic poor or the politically disenfranchised. It effects us all. As a societal pathology of our modern times, its cure lies in improved information management, the establishment of information utilities staffed by competent, knowledgeable professionals and intelligent systems dedicated to service and an understanding of the important role of information in the evolution and continued existence of human society[2, p. 73].

The account is pervaded by a sense of cultural pessimism and relies heavily on medical metaphors. Informational poverty is posited as a disease specific to the information society – the existence of which is presupposed – and which literally infects the very fabric of this society. Since disease exists in opposition to health only and as a deviance from a “normal” state, the possibility of healthier societies must be assumed. Relating the malady to our modern times implies that it did not exist in previous times. However, the solution is not to be found in a return to those earlier, healthier times, but rather in developments, cures, originating within this very information society and they can be managed with new technologies and other devices, and the establishment of utilities first, which are then staffed by professionals, who are competent and knowledgeable. The nature and extent of their competence and knowledge remain unexplained, while the job of providing a service is that of systems. Put differently, “information poverty” is constructed as a syndrome that originates within the very nature of an information society, i.e. an excess of information. Since a return to a more innocent, more complete state is precluded, the disease has to be managed by handing over control to experts and machines.

The use of medical metaphors to describe society and the link between medical discourse and political practice has been a common and fruitful theme since the eighteenth century. It has to be seen within the context of the rise of the medical profession and clinical discourse during this time (Foucault, 1980b, 1991). It continues to provide powerful metaphors that contribute to alleviating the status of one profession in society and curtailing another and to describe society. Consequently society is assigned the role of the objectified, diseased body to be treated by experts. This is often achieved by implicitly invoking the physician, which as a profession is

characterised by its particularly high social status. Tuominen (1997) describes this strategy as inscribing and ascertaining the power relationships between librarians and their users.

However, beyond the provision of metaphors and images the connection between medical discourse and political practice is, as Foucault (1991, p. 67) points out, a very direct one and it relates to “a mode of functioning of medical discourse as part of a system of administrative and political control of the population (society as such is considered and ‘treated’ according to the categories of health and pathology)”. Moreover, as Henri Lefebvre (1991) puts forward, medical or biological images are generally evoked as a last resort in situations of increased complexity and insecurity, in which an institution or a society feels threatened in its existence and they have to be seen as signs of doubt. In his words: “This physical analogy, the idea of an organic space, is thus called upon only by systems of knowledge or power that are in decline” (Lefebvre, 1991, p. 274).

The numerous connections between “information poverty” and various other statements drawn in these two different accounts establish a number of themes that contribute to the formation of the notion itself. To reiterate the most prominent points: “Information poverty” is associated with a particular type of contemporary society. It is developing into a problem, which threatens the equality within society, or has already established itself as such and it lies with society and the profession to address the problem by introducing specific institutional changes or by providing systems, tools and techniques as well as the experts to use and apply them.

It will be interesting to return to the themes and associations identified here, after a closer analysis of more recent accounts. This will allow seeing how they have transformed, extended, stabilised or disappeared and also how different ones have emerged during the past ten years.

#### *Economic determinism*

A number of powerful dichotomies contribute to the construction of the “information poor”, among them urban/rural, western/indigenous, developed/developing, literate/illiterate. However, the most assertive pair, which is also directly inscribed in the term, is the opposition between economically rich and poor. This is captured particularly well in very direct assertions like the following: “Material poverty and information poverty go hand in hand.”[3, p. 56].

Or even more strikingly as follows:

[C]onsidering only the United States (one of the richest, both economically and hence informationally) [...] will the information age have its own form of “information welfare”, where some can access the Internet from public places and be given an information subsidy, which will provide them (presumably) enough information for a month, until the next check comes around?[4, p.30].

The above excerpt is riddled with images that exceed a mere alignment of information with the material conditions that are seen to contribute to its creation or acquisition. Here information is very directly equated with money and its presumed absence with a need for charity and welfare. Notably the internet is assigned the role as the sole provider or source of information. Significant also is the pejorative use of the concept of the public place, which is seen as reserved for the poor, identified as those depending

on welfare. Thus the public place appears as a signifier of poverty and public internet access as a sign of “information poverty” or “information welfare”.

Further direct links between economic or material deprivation and “information poverty”, often position information itself either akin to a natural resource or as a direct result of monetary wealth. Consider the following excerpt from an article about Nigerian rural libraries:

It is a well-known fact that information is at the heart of development. Consequently, the information and resource rich societies of the west have developed at an incredible rate in comparison to the poor countries of the south which are wallowing in abject poverty and debt[5, p. 30].

Information is aligned with other resources and seen as occurring independently. Since it also pre-dates development, cause and effect are merged into one and the “poor countries of the south” are all but thrown into a vicious circle. The notion of information, mostly identified with western science, as a motor for economic development is an established image in development discourse, and the measurement of development by the yardstick of European science is directly linked with it. As in the above account, these “information rich societies of the west” are seen to define the aims and to set the pace, with which the others have to catch up (e.g. Escobar, 1995).

This direct alignment of information and monetary or material wealth is very dominant in accounts of the “developing world”, but it is by no means limited to it. It lies at the very heart of the notion “information poverty” and a sense of economic determinism or economic rhetoric pervades the concept and all its associations.

#### *Technological determinism and the “information society”*

One of the most dominant recurring themes is rooted in a technologically deterministic view of an “information society”, whose emergence and existence is primarily dependent on the internet and digital technologies. Consequently, lack of (affordable) access to the internet, leads to an exclusion from this society and is thus interpreted as a state of deprivation, which is characterised as “information poverty”. Furthermore, since here growth of the internet is associated or even equated with an increase of information, this is perceived as leading to growing numbers of “information poor”. As a theme, technological determinism emerges from varying associations and takes different shapes. Like economic determinism it is generally dependent on a perspective, which, trapped within the conduit metaphor (Day, 2000), perceives information as a neutral matter or as facts that are quantifiable and easily transmittable.

The following excerpt from 2003 is an illustrative example for the merging of technological determinism with economic rhetoric:

Of all our enemies, poverty has hindered us the most in our efforts to use the Internet optimally. Since we are poor, we cannot get easy access to the Internet. Inversely, not using the Internet can only widen the gap between the “information rich” and the “information poor”[6, p. 100].

Again, “information poverty” is the result of material poverty, which in this case means limited internet access. This form of technological determinism is also a typical feature in international development discourse, where information and knowledge are commonly equated with existence and availability of ICTs (Wilson, 2003).

Since the problem is merely one of access, the solution is already implied in the cause and lies in providing the technology, albeit often alongside IT or (information) literacy training.

Based on an equation of information with codification, illiteracy is often construed as the determining characteristic of the “information poor” and consequently a society’s “informational wealth” can be established by measuring literacy rates. Taking the equation further leads to an association of “information poverty” via illiteracy with a lack of computer access:

We are in real danger of creating in the society of the twenty-first century a further, new kind of inequality: the information rich and the information poor. For remember, too, that around 22 per cent of those people in this country of working age have basic difficulties in literacy and numeracy. And if you cannot read and write effectively you cannot use a PC[7, p. 333].

“Information poverty” is portrayed as a novel inequality specific to the twenty-first century. This new form of inequality does however not simply emerge; it is created, yet by a not further specified group. Illiteracy is advanced as the determining characteristic of these thus created “information poor”. However, not the inability to read or write is seen as the actual problem, but the resulting inability to use a computer. This leads to a *de facto* alignment of information acquisition with computer use and in turn devalues all other possible forms of information and information acquisition. Most importantly, all forms of uncodified information and of unmediated inter-personal communication or other social interactions, including oral communication, are implicitly excluded from this view.

In the context of the developing world this strategy takes a different turn:

The gap between information rich and information poor, and literate and illiterate can be reduced by setting up community information centers. These centers are to be equipped with multimedia PCs and relevant software to enable even those who are illiterate to use computers using icons and the mouse[8, p. 37].

Again, while illiteracy determines “information poverty”, it is here possible to overcome it directly by taking the shortcut to computer use. The detour via literacy that was implicitly necessary in the above account is here omitted and replaced by images and icons.

Yet, both are anchored in an oversimplified image of cultural and social change which, it can be argued with Francis Miksa (1992, p. 236), conveys a nineteenth-century perception of social advancement “where the idea of society’s upward progress tends to be identical with the growth of the West’s dependence on written records for the conduct of social and personal life”.

A variation of this theme lies in the association of “information poverty” with “information overload”, which is also posited as a characteristic of an internet dominated “information society”. Especially, since recently mere access is often not perceived as posing a problem any longer, this argument has gained currency.

Consider the following excerpt from a report about a development aid project specifically aimed at overcoming “information poverty” of scientists and researchers in “developing countries”:

Even when access is possible, the bewildering amount and variety of information available can lead to the dreaded “information overload” with all that implies for poor information retrieval[9, p. 44].

The “developing country” researchers are portrayed as overwhelmed, as bewildered not only by the amount, but also by the variety that comes with access. In short, they are portrayed as lacking the intellectual and social capacity for processing the amounts and different types of information. Thus, in an inversion of the scarcity argument, “information poverty” is associated with a technically induced information overload, which precludes sense-making for those perceived as lacking the right tools or skills. Furthermore, Sanna Talja (2001, p. 167 *et seqq.*) points out that the pairing of education and civilization produced a theory of uncivilised and civilised individuals. Here, this coupling appears to be continued, yet also extended by one which assigns the restricted privileged identity primarily to search-savvy, IT-literate, and thus “information rich” individuals.

Despite the way in which the pairing of information with poverty alludes to a commodified character of information, “information poverty” is frequently advanced to voice criticism of the very commodified status information has in contemporary society. In particular, it is put forward to critique current developments in information property regimes which do not usually work in favour of minorities, the “developing world”, or other disadvantaged and marginalised groups. This is where “information poverty” most strongly seeks to be put to use for the disenfranchised and criticism of technological determinism can also be made out. Yet, at the same time, it is still perceived as being remediable through means of transfer, internet connections and/or education. Specifically, it is not uncommonly anchored in judgemental views of what is valuable information or gives way to perceptions that assign the power to define what constitutes information to dominant groups.

Consider the following paragraph from a highly critical article from 2004:

Before addressing the moral implications of information poverty it can be concluded that information poverty affects the quality of life of the vast majority of people on this earth. [...] At a macro-economic level the state, for example, should be allocated an important role with regard to the initiation and creation of accessible information infrastructures and formulation of national information policies. This is specifically true for developing nations. [...] Education is crucial and there should be more emphasis on the development of information literacy programmes in order to empower individuals and communities to obtain access to essential information[10, p. 197].

By portraying the vast majority of people as being afflicted by “information poverty” the assumption has to be that some people on this earth are not affected by it. Not only are they already in the possession of all essential information, it also seems to imply that theirs is what counts as information, while the vast majority is left to having to be empowered and educated in order to access and make sense of what elsewhere is defined as information.

Most importantly, while intending to critique the inequalities of contemporary economic and information regimes as well as the unequal distribution of IT infrastructures, the criticism often appears to build on the foundations of these regimes and leaves the very conceptions of information that underpin them largely unquestioned.

*Historicising the “information poor” – invoking the roots of the (public) library*

The emergence of the internet and the growing importance of ICTs in general have contributed to considerable insecurities concerning the nature of the library and to

uncertainties about its future role. The construction of the “information poor” based on the effects these changes have meant for the institution of the library is frequently achieved by invoking the historical purpose of the public library and the situation at the time it was founded in the nineteenth century.

Usually these associations are not further elaborated on, but simply hinted at by mentioning for example, in a British context, Andrew Carnegie, the industrial revolution, or simply a date. Still, it is a very pervasive procedure that can be found throughout and it contributes to a likening of the industrial revolution with contemporary changes. It is an understandable rhetorical strategy and it appears natural, almost self-evident to mention the situation at the time of the creation of the public library services in this context. Yet, mentioning both situations within the same textual space does form a conceptual tie and has certain effects, namely an association of the “information poor” with the proletarian poor of the nineteenth century. Through this their emergence begins to appear as an obvious, almost inevitable event. On the one hand, it becomes a case of history repeating itself. On the other hand, “information poverty” is given a tradition as well as a place in the library’s history and with it a sense of continuity is established. Consequently, the “information poor” are related to “the library’s historic concern for social justice”[11, p. 36] and are presented as a “traditional responsibility”[12, p. 28] of the public library. In turn this reference to the past establishes a continuity that contributes to a stabilisation of the institution’s present and also future role and purpose.

This reference to the past and the constructions or even invention of traditions in order to legitimise and stabilise an institution is, as Eric Hobsbawm (1983) points out, common practice at all times. However, they are particularly frequent at certain times, for instance when society undergoes major transformations or when old institutions despite “nominal continuity” (Hobsbawm, 1983, p. 5) are subject to fundamental changes, as is currently the case with the institution of the library. Hobsbawm (1983, p. 2) speaks of “invented traditions” which establish continuity with the past “as responses to novel situations which take the form of reference to old situations”.

*The profession’s responsibility and moral obligation*

An especially productive and particularly consequential discursive procedure emerges through the association of “information poverty” with political or moral concerns already entangled with strong images of suffering and suppression. Frequently, economic rhetoric, historicising tendencies as well as the insistence on the primacy of technology are put into service to further re-enforce and legitimise this procedure. A sense of ethical concern and righteousness is constructed upon which the library profession’s moral obligation is based to help groups of varying constructed “information poor”. This is most pertinent by alluding to censorship or apartheid, or in compounds such as the information starved, or info dearth, but it pervades most accounts and is of course reflected in the coinage of the term “information poverty” itself.

A clear connection exists between the conceived needs of the “information poor” and the profession’s possibilities of alleviating the thus established deficiency, which is usually expressed in various forms of illiteracy or as a technological inadequacy. An excerpt from an article based on a talk given in 1997 about the role of the public library in an “information society” illustrates this tie between the “information poor” and the profession’s role. It is also a good example of the almost missionary tone that pervades many of the accounts:

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Surely it is up to us here today, the committed professional [...] to ensure that the Information Society does not lead to exclusion, adding to the divisions, including those of information rich and information poor, that exist in our society. Don't we have a role in creating a society in which the computer illiterate and the non connected are not left on the margins? [...] There are many steps we can and should be taking to ensure that not only our traditional users are part of this information world, but that we stretch out and reach others. We need policies for education and training – of ourselves and our users [...] [13, p. 2].

In a clear assertion of the profession's specialist status, the "information poor" are created in a way that automatically assigns their salvation to the library and its staff. The solution lies in outlining policies, in providing as well as in receiving education and training. Notably, this training has to be provided to the librarians as well as to their clients. The emphasis on the pedagogical and educational aspects of librarianship in constructing its users in a way that, ostensibly led by democratic ideals, may lead to a strengthening of objectification and control rather than increased equality, was also established by Hedemark *et al.* (2005).

A similar chord is struck in the following excerpt dating from 2000:

LIS departments are generally found in universities, and university graduates often dread working with the poor, the illiterate, and in rural areas. [...] We must provide students with the knowledge that inculcates a service culture. Libraries can help empower the information poor in tackling their challenges and responsibilities. Graduates must understand their responsibility in transforming the information poor into information consumers [...] [14, p. 30].

Again, the construction of the "information poor" is directly related to the responsibility of the profession and, what's more, to its education. Therefore, as an obvious consequence the solution to the thus created problem has to lie with the profession. Whereas in line with the already identified economic rhetoric, that is associated with the concept as a whole, the "information poor", here identified as the illiterate, the poor and rural people, have to be turned into consumers. This can be seen as quite directly related to the perception of an internet dominated "information society", in which the internet is almost exclusively defined by its wider economic significance and information itself is given the status of an economic commodity. Frohmann (1994) relates the tendency to construct users as consumers and information as a commodity to the colonisation of some quarters of user-centric LIS theory by world-view and rhetoric of consumer capitalism. Some argue, in this context, that specifically the development community is to a large degree directed towards establishing new markets for information capital (Luyt, 2004). Furthermore, as Brendan Luyt (2004) goes to show in his analysis of the digital divide as a policy issue, it is not necessarily those that are identified as the ones suffering from a deficiency and which are the target of an intervention that are its prime beneficiaries. To a degree detecting a deficiency or opening of gap might already imply the solution. In particular the development industry has been criticised for constructing needs based on the "expertise these agencies believe they can provide" (Luyt, 2004).

This connection of the "information poor" with the institution of the library on an ethical level can also be considered in the light of Foucault's (2000, pp. 332-6) concept of pastoral power. With pastoral power, Foucault refers to a salvation-oriented power technique that has its origin in organised Christianity. It is an individualising power technique whose spread is linked to the emergence of the modern state. Since the eighteenth century it has pervaded all of society, its aims as well as its agents have

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multiplied, and it has become a central power technique for a variety of institutions. The agents of pastoral power are a number of different institutions, including for example the state, the police, the family, or the hospital, but also welfare institutions in general, philanthropists, or charities. In our case the library can be described as taking on the role of an agent of salvation. Most importantly, salvation can have a variety of meanings, such as health, quality of life, wealth, or whatever is considered to be a desirable state at different times and in different settings, including for example being connected to the internet, being literate, or being part of an “information society”.

The construction of the “information poor” in a way that, almost by default, assigns their rescue to the library profession, and be it solely by raising awareness about their status as “information poor” in the first place, is achieved in very consistent ways throughout the literature. Yet, the desired outcomes of the different recommended interventions – either access provision, literacy education, or other forms of training – appear to be less consistent. However, frequently they are posited as noble and worthy causes, such as fighting censorship, strengthening or advancing democracy and civil rights, empowerment in general, or as above, creating consumers. Often this is explicitly posited as amending injustices and inequalities and consistently the librarian’s role is portrayed as that of the natural ally of those that are seen as “weak”. Thus, the construction of the “information poor”, as it occurs in these accounts, can be interpreted as serving an almost strategic purpose aimed at strengthening the profession’s role and image and alleviating its status.

### Conclusion

If we return to the two accounts from 1975 and 1986 that were briefly discussed above, the emergence and relative stability of the concept appears more clearly. The technological determinism, which is already present in the two earlier papers, continues to be influential in the recent literature through the association of “information poverty” with an ICT dominated “information society”. Interestingly the recourse to the library’s historical and traditional roles and values develops as a thematic strand. An explanation for the latter, it has been argued, can be found in the perception of an increased insecurity about the institution’s future role. The pervading sense of cultural pessimism associated with a disintegrating society found in the 1986 paper on “informational poverty” has given way to more subdued accounts – utopian as well as dystopian – of a globalised “information society”. Yet, the association of “information poverty” with an excess of information has persisted and more recently increased in significance. The use of very powerful medical metaphors, in certain ways shifted towards more general images of suffering and suppression which however evoke an equal need for expert intervention and crucially for salvation.

Also apparent is the dominance of concepts of information which, in line with the dominant sender/receiver model described by the conduit metaphor (Day, 2000), perceive of information as neutral matter or easily transmittable facts. This is frequently also the case when “information poverty” is introduced to voice criticism of the commoditised status of information in contemporary capitalist society. Furthermore, the concept is to a large degree underpinned by an uncritical understanding of information as a positive force for social, economic, and personal advancement or the general societal “good”. Most notable however are the strong and persistent discursive procedures that tie “information poverty” to institution and

profession, and thus contribute to the construction of the “information poor” as a group who are the librarian’s responsibility and quasi-natural objects of intervention.

In conclusion, “information poverty” and the “information poor” were established as being assigned specific positions and roles in the discourse of LIS through its connections and alliances with other statements. They emerge as the result of overlapping, at times conflicting sets of what has been called discursive procedures. The statements in relation to which the position of “information poverty” develops were found to be situated internal to LIS discourse, as for example the association with the public library and its history, but also external to it, as is largely the case in what was labelled economic determinism. The alignment with technology and an internet-dominated information society, on the other hand, can be seen as drawing on concepts from within as well as outside the field of LIS. Likewise, the association with various concepts already charged with moral concerns also ties partially into external discursive systems. These latter alliances were found to contribute strongly to the hedging of the profession’s status by lending an ethical dimension to its practices and applications.

The constructed group(s) of “information poor” and with them the emergence of specific sets of expert knowledge aimed at changing their status, can be said to contribute to the stabilisation of the profession’s image and self-perception. In other words, through the construction of “information poverty” and the “information poor” as concepts tied to institutional as well as to external discursive systems, power relations specific to librarianship are inscribed, strengthened and continued. In conclusion, it can be argued that the “information poor” emerge as an identifiable category in LIS as the product of the professional and institutional discourse by constructing them as the traditional, obvious and natural target of the professional practice.

#### Example quotations

1. Savage, N. (1975), “ASIS at Boston: national planning, networking and copyright stir debate”, *Library Journal*, Vol. 100 No. 22, pp. 2303-05.
2. Diener, R. (1986), “Information poverty”, in Hurd, J. and Davis, C. (Eds), *Proceedings of the 49th ASIS Annual Meeting, (ASIS '86)*, Vol. 23, Learned Information, Medford, NJ, pp. 69-74.
3. Cawkell, T. (2001), “Sociotechnology: the digital divide”, *Journal of Information Science*, Vol. 27 No. 1, pp. 55-60.
4. Buchanan, E. (1996), “Ethical transformations in a global information age”, *Technical Services Quarterly*, Vol. 13 No. 3 /4, pp. 23-38.
5. Agboola, A.T. (2000). “Rural information supply and Nigerian agricultural libraries”, *Rural Libraries*, Vol. 20 No. 2, pp. 29-37.
6. Mammo, Y. (2003), “The role of the internet for the agricultural sector in Ethiopia: potential, challenges, prospects”, *Quarterly Bulletin of the International Association of Agricultural Information Specialists*, Vol. 48 No. 1/2, pp. 97-101.
7. Hendry, J.D. (2000), “Social inclusion and the information poor”, *Library Review*, Vol. 49 No. 7, pp. 331-336.
8. Parvathamma, N. (2003), “Digital divide in India: need for correcting urban bias”, *Information Technology and Libraries*, Vol. 22 No. 1, pp. 35-38.
9. Mahoney, M. (1999), “Overcoming information poverty: the research information shared pilot scheme”, *Information Development*, Vol. 15 No. 1, pp. 44-6.

10. Britz, J. (2004), “To know or not to know: a moral reflection on information poverty”, *Journal of Information Science*, Vol. 30 No. 3, pp. 192-204.
11. Matarasso, F. (2000), “An equal chance to know”, *Public Library Journal*, Vol. 15 No. 2, pp. 35-38.
12. Dempsey, M. (1998), “Tomorrow’s public library: the American view”, *Australasian Public Libraries and Information Services*, Vol. 11 No. 1, pp. 28-35.
13. Hendrix, F. (1997), “Public libraries and the information highway”, *Public Library Journal*, Vol. 12 No. 1, pp. 1-5.
14. Kagan, A. (2000), “The growing gap between the information rich and the information poor both within countries and between countries: a composite policy paper”, *IFLA Journal*, Vol. 26 No. 1, pp. 28-33.

### Corpus

- Agboola, A.T. (2000), “Rural information supply and Nigerian agricultural libraries”, *Rural Libraries*, Vol. 20 No. 2, pp. 29-37.
- Bowden, R. (2000), “The information rich and IFLA’s information poor”, *IFLA Journal*, Vol. 26 No. 4, pp. 298-302.
- Britz, J. (2004), “To know or not to know: a moral reflection on information poverty”, *Journal of Information Science*, Vol. 30 No. 3, pp. 192-204.
- Buchanan, E. (1996), “Ethical transformations in a global information age”, *Technical Services Quarterly*, Vol. 13 Nos 3/4, pp. 23-38.
- Cawkell, T. (1998), “The information age – for better or for worse”, *Journal of Information Science*, Vol. 24 No. 1, pp. 56-8.
- Cawkell, T. (2001), “Sociotechnology: the digital divide”, *Journal of Information Science*, Vol. 27 No. 1, pp. 55-60.
- Chatman, E.A. and Pendeleton, V.E. (1995), “Knowledge gap, information seeking and the poor”, *The Reference Librarian*, Nos 49/50, pp. 135-45.
- Chatman, E.A. (1996), “The impoverished life-world of outsiders”, *Journal of the American Society for Information Science*, Vol. 47 No. 3, pp. 193-206.
- Dalton, M. (2000), “Old values for the new information age”, *Library Journal*, Vol. 125 No. 18, pp. 43-6.
- Dempsey, M. (1998), “Tomorrow’s public library: the American view”, *Australasian Public Libraries and Information Services*, Vol. 11 No. 1, pp. 28-35.
- Diener, R. (1986), “Information poverty”, in Hurd, J. and Davis, C. (Eds), *Proceedings of the 49th ASIS Annual Meeting, (ASIS '86)*, Vol. 23, Learned Information, Medford, NJ, pp. 69-74.
- Ferguson, K. (1998), “World information flows and the impact of new technology. Is there a need for international communications policy and regulation?”, *Social Science Computer Review*, Vol. 16 No. 3, pp. 252-67.
- Goulding, A. (2001), “Information poverty or information overload”, *Journal of Librarianship and Information Science*, Vol. 33 No. 3, pp. 109-11.
- Edwards, C. (2001), “Global knowledge: a challenge for librarians”, *IFLA Journal*, Vol. 27 No. 2, pp. 65-9.
- Hendrix, F. (1997), “Public libraries and the information highway”, *Public Library Journal*, Vol. 12 No. 1, pp. 1-5.
- Hendry, J.D. (2000), “Social inclusion and the information poor”, *Library Review*, Vol. 49 No. 7, pp. 331-6.

- Hobsbawm, E. (1983), "Introduction: inventing traditions", in Hobsbawm, E. and Ranger, T. (Eds), *The Invention of Traditions*, Cambridge University Press, Cambridge, pp. 1-14.
- Hudson, A. (2000), "Public libraries in the new century", *Librarians' World*, Vol. 9 No. 3, pp. 41-3.
- Kagan, A. (2000), "The growing gap between the information rich and the information poor both within countries and between countries: a composite policy paper", *IFLA Journal*, Vol. 26 No. 1, pp. 28-33.
- Lawal, O.O.L. (1995), "Financing reduction of information poverty in Nigerian university libraries: a study of the IMF and World Bank credit facility", *The International Information and Library Review*, Vol. 27 No. 4, pp. 345-57.
- McCaffery, J. (1999), "What are the challenges for library professionals in the electronic age", *Impact: Journal of the Career Development Group*, Vol. 2 No. 5, pp. 66-8.
- McIlwaine, C. (1998), "Africa at IFLA1998", *African Research and Documentation*, Vol. 78, pp. 47-54.
- Mahoney, M. (1999), "Overcoming information poverty: the research information shared pilot scheme", *Information Development*, Vol. 15 No. 1, pp. 44-6.
- Majid, S. (2001), "Trends in using CD-ROM in academic libraries of three south Asian countries – Pakistan, Bangladesh and Sri Lanka", *Aslib Proceedings*, Vol. 53 No. 2, pp. 68-76.
- Mammo, Y. (2003), "The role of the internet for the agricultural sector in Ethiopia: potential, challenges, prospects", *Quarterly Bulletin of the International Association of Agricultural Information Specialists*, Vol. 48 Nos 1/2, pp. 97-101.
- Matarasso, F. (2000), "An equal chance to know", *Public Library Journal*, Vol. 15 No. 2, pp. 35-8.
- Nicholson, D. (2002), "The 'information-starved' – is there any hope of reaching the 'information super highway'?", *IFLA Journal*, Vol. 28 Nos 5/6, pp. 259-65.
- Parvathamma, N. (2003), "Digital divide in India: need for correcting urban bias", *Information Technology and Libraries*, Vol. 22 No. 1, pp. 35-8.
- Rahman, A. (1996), "UNESCO's public library manifesto – 1994: an impression", *Malaysian Journal of Library and Information Science*, Vol. 1 No. 2, pp. 95-8.
- Ronald, S. (1995), "The emerging network environment and the information poor", *Australasian Public Libraries*, Vol. 8 No. 1, pp. 26-35.
- Savage, N. (1975), "ASIS at Boston: national planning, networking and copyright stir debate", *Library Journal*, Vol. 100 No. 22, pp. 2303-5.
- See, Ch.K. (2001), "Government information and information about governments in South East Asia: a new era? An overview", *INSPEL*, Vol. 35 No. 2, pp. 120-36.
- Shimmon, R. (1995), "The librarian at the end of the galaxy", *New Library World*, Vol. 96 No. 3, pp. 43-8.
- Sijing, L. (2003), "The management model of agricultural research information institutions", *Quarterly Bulletin of the International Association of Agricultural Information Specialists*, Vol. 48 Nos 1/2, pp. 92-6.
- Simon, E. (1998), "Information professional – demands for new policies and new structures in the profession. Experiences and programs in Eastern and Central Europe and the developing countries", *Aslib Proceedings*, Vol. 50 No. 3, pp. 51-6.
- Stoker, D. (2000), "Social exclusion, 'joined-up government', public libraries and the internet", *Journal of Librarianship and Information Science*, Vol. 32 No. 2, pp. 53-5.
- van Themaat, C.V. (2005), "The digital divide: implications for South Africa", *SALIM*, Vol. 6 No. 3, available at: [www.saji.co.za/default.asp?to=student2vol6nr3](http://www.saji.co.za/default.asp?to=student2vol6nr3) (accessed 11 November, 2005).

Zachary, P.G. (2004), “Black star: Ghana, information technology and development in Africa”, *First Monday*, Vol. 9 No. 3, available at: [www.firstmonday.org/issues/issue9\\_3/zachary](http://www.firstmonday.org/issues/issue9_3/zachary) (accessed 11 November, 2005).

### References

- Abbott, A. (1998), “Professionalism and the future of librarianship”, *Library Trends*, Vol. 46 No. 3, pp. 430-43.
- Andersen, J. and Skouvig, L.H.C. (2006), “Knowledge organization: a socio-historical analysis and critique”, *Library Quarterly*, Vol. 76 No. 3, pp. 300-22.
- Budd, J. and Raber, D. (1996), “Discourse analysis: method and application in the study of information”, *Information Processing and Management*, Vol. 32 No. 2, pp. 217-26.
- Chan, A. and Garrick, J. (2003), “The moral ‘technologies’ of knowledge management”, *Information, Communication & Society*, Vol. 6 No. 3, pp. 291-306.
- Day, M.T. (1998), “Transformational discourse: ideologies of organizational change in the academic library and information science literature”, *Library Trends*, Vol. 46 No. 4, pp. 635-67.
- Day, R. (2000), “The ‘conduit metaphor’ and the nature and politics of information studies”, *Journal of the American Society for Information Science*, Vol. 51 No. 9, pp. 805-11.
- Day, R. (2001), *The Modern Invention of Information: Discourse, History, and Power*, Southern Illinois University Press, Carbondale, IL.
- Day, R. (2005), “Poststructuralism and information studies”, *Annual Review of Information Science and Technology*, Vol. 39, pp. 575-609.
- Escobar, A. (1995), *Encountering Development: The Making and Unmaking of the Third World*, Princeton University Press, Princeton, NJ.
- Foucault, M. (1972a), *The Archaeology of Knowledge and the Discourse on Language*, Pantheon, New York, NY.
- Foucault, M. (1972b), “The discourse on language”, in Foucault, M. (Ed.), *The Archaeology of Knowledge and the Discourse on Language*, Pantheon, New York, NY, pp. 215-37.
- Foucault, M. (1980a), “Two lectures”, in Gordon, C. (Ed.), *Power/Knowledge: Selected Interviews and Other Writings 1972-1977*, Pearson Education, Harlow, pp. 78-108.
- Foucault, M. (1980b), “The politics of health in the 18th century”, in Gordon, C. (Ed.), *Power/Knowledge: Selected Interviews and Other Writings 1972-1977*, Pearson Education, Harlow, pp. 166-82.
- Foucault, M. (1980c), “Truth and power”, in Gordon, C. (Ed.), *Power/Knowledge: Selected Interviews and Other Writings 1972-1977*, Pearson Education, Harlow, pp. 109-33.
- Foucault, M. (1991), “Politics and the study of discourse”, in Burchel, G., Gordon, C. and Miller, P. (Eds), *The Foucault Effect: Studies in Governmentality: With Two Lectures and an Interview with Michel Foucault*, University of Chicago Press, Chicago, IL, pp. 53-72.
- Foucault, M. (2000), “The subject and power”, in Foucault, M. (Ed.), *Power. Essential Works of Foucault 1954-1984*, Vol. 3, Penguin Books, London, pp. 326-48.
- Frohmann, B. (1992a), “Knowledge and power in library and information science: toward a discourse analysis of the cognitive viewpoint”, in Vakkari, P. and Cronin, B. (Eds), *Conceptions of Library and Information Science: Historical, Empirical and Theoretical Perspectives: Proceedings of the International Conference Held for the Celebration of the Department of Information Studies, University of Tampere, Finland, 26-28 August 1991*, Taylor Graham, London, pp. 135-46.

- Frohmann, B. (1992b), "The power of images: a discourse analysis of the cognitive viewpoint", *Journal of Documentation*, Vol. 48 No. 4, pp. 365-86.
- Frohmann, B. (1994), "Discourse analysis as a research method in library and information science", *Library and Information Science Research*, Vol. 16 No. 2, pp. 119-38.
- Frohmann, B. (2004), "Documentation redux: prolegomenon to (another) philosophy of information", *Library Trends*, Vol. 52 No. 3, pp. 387-407.
- Hannabuss, S. (1996), "Foucault's view of knowledge", *Aslib Proceedings*, Vol. 48 No. 4, pp. 87-102.
- Hedemark, Å., Hedman, J. and Sundin, O. (2005), "Speaking of users: on user discourses in the field of public libraries", *Information Research*, Vol. 10 No. 2, available at: <http://informationr.net/ir/10-2/paper218.html> (accessed February 25, 2006).
- Introna, L.D. (1999), "Context, power, bodies and information: exploring the 'entangled' contexts of information", in Wilson, T.D. and Allen, D.K. (Eds), *Exploring the Contexts of Information Behaviour: Proceedings of the Second International Conference on Information Research in Information Needs, Seeking and Use in Different Contexts, 13/14 August 1998, Sheffield, UK*, Taylor Graham, London, pp. 1-9.
- Jacobs, N. (2001), "Information technology and interests in scholarly communication: a discourse analysis", *Journal of the American Society for Information Science and Technology*, Vol. 52 No. 13, pp. 1122-33.
- Lefebvre, H. (1991), *The Production of Space*, Blackwell, Oxford.
- Luyt, B. (2004), "Who benefits from the digital divide?", *First Monday*, Vol. 9 No. 8, available at: [http://firstmonday.org/issues/issue9\\_8/luyt/index.html](http://firstmonday.org/issues/issue9_8/luyt/index.html) (accessed February 25, 2006).
- McKenzie, P. (2003), "A model of information practices in accounts of everyday-life information seeking", *Journal of Documentation*, Vol. 59 No. 1, pp. 19-40.
- McNabb, R. (1999), "Making all the right moves: Foucault, journals, and the authorization of discourse", *Journal of Scholarly Publishing*, Vol. 21 No. 1, pp. 20-41.
- Mills, S. (2003), *Michel Foucault*, Routledge, London and New York, NY.
- Miksa, F.L. (1992), "Library and information science: two paradigms", in Vakkari, P. and Cronin, B. (Eds), *Conceptions of Library and Information Science. Historical, Empirical and Theoretical Perspectives: Proceedings of the International Conference Held for the Celebration of the Department of Information Studies, University of Tampere, Finland, 26-28 August 1991*, Taylor Graham, London, pp. 229-52.
- Olsson, M. (1998), "The discourse of contemporary information science research", *Information Research*, Vol. 4 No. 2, available at: <http://informationr.net/ir/4-2/istic/olsson.html> (accessed February 25, 2006).
- Olsson, M. (1999), "Discourse: a new theoretical framework for examining information behaviour in its social context", in Wilson, T.D. and Allen, D.K. (Eds), *Exploring the Contexts of Information Behaviour: Proceedings of the Second International Conference on Information Research in Information Needs. Seeking and Use in Different Contexts, 13/14 August 1998, Sheffield, UK*, Taylor Graham, London, pp. 136-49.
- Pawley, C. (2003), "Information literacy: a contradictory coupling", *Library Quarterly*, Vol. 73 No. 4, pp. 422-52.
- Pêcheux, M. (1982), *Language, Semantics and Ideology: Stating the Obvious*, Macmillan, London.
- Radford, G. (1992), "Positivism, Foucault, and the fantasia of the library: conceptions of knowledge and the modern library", *Library Quarterly*, Vol. 62 No. 4, pp. 408-24.
- Radford, G. (1998), "Flaubert, Foucault, and the bibliotheque fantastique: toward a postmodern epistemology for library and information science", *Library Trends*, Vol. 46 No. 4, pp. 616-34.

- Radford, G. (2003), “Trapped in our own discursive formations: toward an archaeology of library and information science”, *The Library Quarterly*, Vol. 73 No. 1, pp. 1-18.
- Radford, G. and Radford, M. (2001), “Libraries, librarians, and the discourses of fear”, *Library Quarterly*, Vol. 71 No. 3, pp. 299-329.
- Radford, G. and Radford, M. (2005), “Structuralism, post-structuralism, and the library: de Saussure and Foucault”, *Journal of Documentation*, Vol. 61 No. 1, pp. 60-78.
- Savolainen, R. (2004), “Enthusiastic, realistic and critical: discourses of internet use in the context of everyday life information seeking”, *Information Research*, Vol. 10 No. 1, p. 25, available at: <http://informationr.net/ir/10-1/paper198.html> (accessed February 25, 2006).
- Spivak, G.C. (1996), “More on power/knowledge”, in Landry, D. and MacLean, G. (Eds), *The Spivak Reader: Selected Works of Gayatri Chakravorty Spivak*, Routledge, New York, NY, pp. 141-74.
- Sundin, O. (2003), “Towards an understanding of symbolic aspects of professional information”, *Knowledge Organisation*, Vol. 30 Nos 3/4, pp. 170-81.
- Sundin, O. (2006), “Professionalism and LIS: (re)constructing the librarian and the user”, in Kjertmann, J. et al. (Eds), *Information, Innovation, Responsibility: The Information Professional in the Network Society: Proceedings of The 14th BOBCATSSS Symposium, 30 January-1 February 2006, Tallinn University, Tallinn, Estonia*, pp. 11-16.
- Talja, S. (1999), “Analyzing qualitative interview data: the discourse analytic method”, *Library and Information Science Research*, Vol. 21 No. 4, pp. 459-77.
- Talja, S. (2001), *Music, Culture, and the Library: An Analysis of Discourses*, Scarecrow Press, Lanham, MD.
- Talja, S., Tuominen, K. and Savolainen, R. (2005), “‘Isms’ in information science: constructivism, collectivism, and constructionism”, *Journal of Documentation*, Vol. 61 No. 1, pp. 79-101.
- Thoms, L. and Thelwall, M. (2005), “Academic home pages: the reconstruction of the self”, *First Monday*, Vol. 10 No. 12, available at: [http://firstmonday.org/issues/issue10\\_12/thoms/index.html](http://firstmonday.org/issues/issue10_12/thoms/index.html) (accessed February 25, 2006).
- Tuominen, K. (1997), “User-centred discourse: an analysis of the subject positions of the user and the librarian”, *Library Quarterly*, Vol. 67 No. 4, pp. 350-71.
- Wilson, M. (2003), “Understanding the international ICT and development discourse: assumptions and implications”, *The South African Journal of Information and Communication*, Vol. 3, available at: <http://link.wits.ac.za/journal/j0301-merridy-fin.pdf> (accessed February 25, 2006).
- Winter, M. (1988), *The Culture and Control of Expertise: Towards a Sociological Understanding of Librarianship*, Greenwood Press, New York, NY and London.
- Yu, L. (2006), “Understanding information inequality: making sense of the literature on information and digital divides”, *Journal of Librarianship and Information Science*, Vol. 38 No. 4, pp. 229-52.