A Suggestion of Criteria for Categorizing Libraries into Types: Linking between Library and Information*

도서관 관종구분의 기준에 대한 고찰

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ABSTRACT

The categorization of libraries into several types supports an understanding of the concept of library and also provides a framework for the practice of library management, such as planning and management. Although a 4-type categorization with public, academic, special, and school libraries is the most traditional and general approach to categorization, the definition of each type has been set enumeratively and inductively, so that it has weaknesses in its clarity between categories and in its applicability to a new environment. In this conceptual paper, deductive and analytical criteria for the 4-type categorization are suggested based on characteristics of information needs. Implications of the suggestions about library management, and especially, the meaning and impact of stakeholders on library management are discussed. Additionally, this paper attempts to put forth a conceptual link between library and information.

초 록

도서관의 관종 구분은 도서관의 개념에 대한 이해 및 도서관 경영실무에서 각 도서관의 역할, 임무, 사명 및 업무 수행의 틀을 제공하는 데에 의의가 있다. 역사적으로 공공, 대학, 학교, 전문으로의 관종의 사구분법이 가장 일반적이나, 각 관종의 정의는 귀납적이고 열거적으로 내려져, 관종간 구분의 명확성이 떨어지고, 새로운 환경에서의 관종구분 적용을 곤란하게 하는 단점이 있다. 본 개념적 논문에서는 정보요구의 특성을 이용하여 도서관 관종의 사구분법에 대한 연역적인 기준을 제시한다. 또한 제시된 기준에 의한 사구분법의 도서관경영에 있어서의 의미를 제시하고, 특히 이해관계자(stakeholders)의 존재 및 도서관경영에 있어서의 영향을 논의한다. 추가로, 본 논문은 도서관 실무와 정보학영역을 개념적으로 연결하여 문헌정보학 내의 세부영역간 관련성을 강화하는 시도로서도 그 의미를 가진다.

Keywords: library types, 4-type categorization, information needs, stakeholders
도서관종, 4구분법, 정보요구, 이해관계자

1. Introduction

Library researchers and practitioners have categorized libraries into several types in order to support an understanding of the concepts and environments of libraries and to also present a framework for library practice. Each type of library has its own mission and purpose that prescribe its activities and performance. Additionally, each type of library has its own characterized needs and environments.

There are numerous library categorizations presented in a variety of textbooks in librarianship and library management. Despite their common categories, a 4-type categorization that consists of public, academic, special, and school libraries, the categorizations have usually been founded on declarative descriptions with an enumeration of phenomenal characteristics. This means that it is hard to identify a deductive criterion for the categorization. Usually, each type of library is defined along with its parent institution. For example, special libraries are usually defined as libraries, which are a part of organizations, (Reitz, 2004) and school libraries are usually defined as libraries in elementary and secondary schools (Prytherch, 2005). With this definition, it is hard to differentiate special libraries from academic and school libraries, which are also parts of educational organizations. For that reason, the definition of special libraries needs an additional description to differentiate them from other types of libraries. As such, the definition becomes descriptive, enumerative and declarative.

There have been many variations in the categorizations, such as the identification of national or government libraries as a type (Shuman, 1992) and the integration of academic libraries with school libraries (Atkinson, 1974). Due to the declarative definitions, we, not only as researchers and practitioners, but also as learners in librarianship, can hardly decide which categorization is more appropriate.

In spite of the lack of reasoned criterion, the 4-type categorization has long been accepted widely within the area of library and information science and librarianship. This shows that the 4-type categorization is reasonable and acceptable to those in this field. Therefore, an immediate problem is whether there is a hidden criterion for the categorization and what this may be. In this conceptual paper, we attempt to identify possible criteria for the categorization based on information science, especially a discussion on information needs and behavior, because a common purpose for all types of libraries is the provision of information in any way.

The suggested criteria would support an understanding of the base of library science and services, and also develop a practical framework in which individual library services are utilized. Additionally, identification of the criteria in information science for understanding in library science could be an initial bridge between the two sides.

In the next section, the 4-type categorization is introduced with definitions of each type of library in order to identify inductive and enumerative characteristics in current definitions of library types. We then explore the characteristics of information needs to identify possible criteria for the categorization.

Finally, we discuss the meaning and implications of the 4-type categorization and application of the categorization on library practice.

2. Definitions of library types

As described in the introduction section, the most common categorization is a 4-type categorization of public, academic, special, and school libraries. In this section, we provide definitions of library types in research papers and textbooks, then identify inductive and enumerative characteristics in the definitions.

For a public library, the U.S. National Center for Educational Statistics defines it as an entity established by laws to serve its community. The required elements of the public library are an organized collection, paid staff, service schedule to public, facilities and support from public funds (McCook, 2004). Chernik (1992) attempts to define a public library by its roles, such as serving reading needs of all ages of citizens and information needs related to education and research. Rubin (2004) defines a public library by its ultimate goal, "to meet the informational, recreational, educational, and cultural needs of the community it serves" (p. 375). In Wikipedia, a public library is defined by its characteristics, such as accessibility to the public, public funding source, and civil servants as operators (Wikipedia, 2010a).

A public library has usually been defined by its social roles and organizational goals. This shows that the purpose of the definition is to present the roles and goals of a public library. Another commonly used elements in the definitions are observable characteristics, such as collection, staff, funding source, accessibility, and facilities. A public library can be understood as an organization, which serves its community to meet the people's various information needs, such as reading, education, and research.

For an academic library, Rubin (2004) define it as a library that serves a post-secondary educational institution, such as a university, a four-year college, or a community college. He also describes the function as related to those of its institution. Many researchers also define it by its parent institution, for example as a post-secondary educational institution (Curran & Miller, 2005; Prytherch, 2005; Reitz, 2004). The role is another element in the definition. Reitz (2004) points out that its role is to meet the information and research needs of its students, faculty, and staff. Curran and Miller (2005) emphasizes its educational function to support the school's curriculum.

Until the 1990s, libraries were regarded as a collection or a set of collections, so that the academic library was also defined as a special collection. Boaz (1979) stated that the collections of academic libraries supported the research and educational programs of the parent institution, and Shuman (1992) identified the primary objective of services and collections of academic libraries as fulfillment of the curriculum needs of their parent institutions.

While defining an academic library, there have been some unclear delineation with other types of libraries, for example a research library. In Wikipedia, large university libraries can be considered as research libraries, and can partly consist of branch

research libraries (Wikipedia, 2010b). Additionally, there has been a question about consistency in libraries of this type. Chernik (1992) pointed out that the diversity in the post-secondary educational institutions made it difficult to set a consistent definition of an academic library.

A school library media center is defined as an organized collection that provides available and accessible resources and services to students, teachers, and administrators (Rubin, 2004). It is an organized collection placed in a school usually for students (Prytherch, 2005). It is also a library that serves teachers and students in elementary and/or secondary school (Curran & Miller, 2005). Reitz (2004) pointed out that it should meet the information needs of the school curriculum and should be operated by school librarians and/or media specialists.

Based on these definitions, a school library provides support for a school curriculum (Rubin, 2004), because the fulfillment of the school curriculum is the purpose of the school and the school library should contribute to the purpose of its parent institution (Boaz, 1979). Similar to definitions of an academic library, a school library tends to also be defined by its parent institution, roles, functions, and users.

Finally, to define a special library, researchers have expressed that it is difficult to define a special library because of the diversity in subject areas and forms (Curran & Miller, 2005). Shuman (1992) even stated that it is impossible to set a consistent definition of special library. Sometimes, a special library is defined as a library that is neither public nor academic nor school library (Chowdhury, Burton, McMenemy,

Poulter, 2008; Wikipedia, 2010c). That is, a special library is a category for all the rest.

Despite the difficulties, there are several definitions of special library, and common elements in the definitions are similar to other types of libraries, such as academic and school libraries. The common characteristic elements are: 1) parent institutions, such as an individual, corporation, association, government agency or any other group (Chernik, 1992; Prytherch, 2005; Rubin, 2004); 2) users, such as staff members (Curran & Miller, 2005) and specialized clientele (Shuman, 1992); 3) characteristics in its collections, such as narrow and specialized subject areas (Chernik, 1992; Shuman, 1992); and 4) roles, such as contribution to the goals of its parent organization (Ashworth, 1979; Chernik, 1992; Reitz, 2004).

Consequently, the definitions of library types are set according to the libraries' common characteristics in each type. Frequently used characteristics include the libraries' parent institutions, roles and functions, collection characteristics, and user characteristics. The user characteristics as elements in the definitions are usually phenomenal, so that they are inductive. The definitions are usually a list of the characteristics, so that they are enumerative. These inductive and enumerative characteristics in the definitions have weaknesses when attempting to have a clear differentiation among the types and for their applicability to a new environment.

For instance, we do not clearly differentiate special libraries from academic and school libraries, because those types of libraries are all for their parent institutions. It is hard to identify any rational evidence

for differentiation of educational institutions from other institutions and for differentiation of post-secondary educational institutions from elementary and secondary schools. In another instance, when a special library opens its door to public, we would be confused about how to then classify its type. Based on the definitions above, the special library could also be a public library, especially when the institution of the special library is established and operated with public funding sources. In this particular case, librarians in the special library would have difficulty setting up managerial priorities between the public and members in the institution.

To overcome the possible weaknesses in the inductive and enumerative definitions, we attempt to identify criteria for the library categorization in the area of information behavior, especially with the characteristics of information needs, which would support the establishment of deductive and rational definitions of library types.

3. Characteristics of information needs: Criteria for library categorization

A library is defined as a "collection of books and other materials made useful," (Atkinson, 1974, p. 13) and as a "collection of materials organized for use," (Feather & Sturges, 1997) and a collection of sources, resources, and services, which is organized for use and maintained by a public body (Wikipedia, 2010d). Therefore, a library is an organization that provides use of an organized collection of information materials. The information used is originally needed information by users. Consequently, the characteristics of information needs can affect the formulation of services and functions in libraries (refer to fig. 1). We explore the characteristics of information needs in order to identify possible criteria for library categorization.

Information is needed basically for a work task. A work task is defined as a set of a goal and activities to reach the goal (Byström & Hansen, 2005). Here, the work task can be physical, affective, or cognitive. The work task can be professional and job-related or also personal, ordinary, and recreational. The concept of work task provides a framework for analysis of information behavior and for the development of information services (Byström & Hansen, 2005). Therefore, information is needed to reach the goal of the work task.

The importance of the concept of work task on information behavior is evidenced by studies of information behavior based on this concept. In his famous textbook, "*Looking for Information*," Case
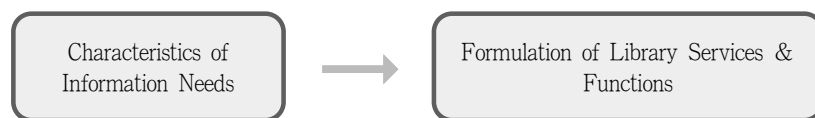
〈Figure 1〉 Effect of information needs on library services

(2007) organized previous studies in information behavior by occupations (scientists, social scientists, humanities scholars, health care providers, journalists, lawyers, and managers), by social roles (voters, consumers, patients, and students), and by demographic groups. Here, the occupations and social roles are related to the work task, so that work task is an important factor regarding information need.

While scrutinizing the structure of Case's categorization, we can identify that the occupational information behavior is heavily related to the users' organizational goals, and that the information behavior by social roles is related to the user's own goals. For instance, when a user needs information as a journalist, the needed information is not exactly for the user her/himself, but for the newspaper company which the user belong to. Meanwhile, when the user needs information as a consumer, the needed information is exactly for the user, let's say for example, to buy something. Managers tend to need external information of her/his organization, which is characterized as environmental scanning (Choo & Auster, 1993). Exactly speaking, the external information is not for the manager her/himself, but for her/his organization. Consequently, information can be needed for the information user her/himself, or for others besides the user, such as the user's organization or her/his customers. That is, the *purpose of information need* can be a characteristic of information need, which is dichotomous (self and others).

There is a unique category in Case's categorization of information behavior. It is the information behavior of students (Case, 2007). Students' information behavior is characterized as "imposed" information behavior. Gross (2001) identifies that elementary students' information seeking and searching is imposed and in contrast with others' "self-generated" information behavior, based on observations of people's information behavior in both public libraries and school libraries in elementary schools. Limberg (2007) also points out that the imposed characteristic is one of two significant factors to the information seeking behavior in a learning task. While proposing the facet approach to task analysis, Li and Belkin (2008) identify a student's imposed search task as in contrast with a self-generated task, then go on to develop them as externally-generated task and internally-generated task.

A student's imposed information behavior based on their learning task provides a meaningful insight for understanding students as principal users in school libraries. Although the information behavior and needs are imposed; the needed information is for student fulfillment of assignments. That is, although the need is imposed, the needed information is actually for the students themselves. This can provide another significant criteria for library categorization. This is characterized as *subject of information need*, and it is also dichotomous (i.e., self and others).

So far, we have identified two meaningful characteristics of information need: purpose of information need and subject of information need. Both characteristics are dichotomous, and the values are the same for each other (i.e.,self and others). By using both characteristics as criteria, we can categorize information needs into four groups, as follows:

〈Table 1〉 Four groups of information needs

		Purpose of Information Needs	
		User (Self)	Others
Subject of Information Needs	User (Self)	1)	2)
	Others	3)	4)

1) When both subject and purpose of information need is the user her/himself.

2) When the subject is the user her/himself, but the information is not for the user.

3) When the subject is other than the user, but the information is for the user her/himself.

4) When both subject and purpose is other than the user.

This categorization can be shown as in Table 1.

Among these four groups: 1) is when a user seeks information for her/himself by her/himself, and the major part of public library users belongs to this group; 2) is when a user seeks information by her/himself, but the information is not for her/himself, but for others, such as her/his organization or customers, and most of special library users belong to this group; 3) is when the information is for the user her/himself, but the need of the information is not the user, but others, such as teachers and parents, and school library users are expected to show these characteristics; and 4) is when a user seeks information for others and by others, and it is hard to determine this type of library user. Maybe librarians and information agents would show these characteristics.

Based on the two characteristics of information needs, we can characterize public, special, and school libraries. For an academic library, we would consider the parent institution, a post-secondary educational institution. The general purpose of the institution is for education and research. The institution usually has its own community, which is usually called a "campus." Therefore, an academic library can be characterized as a synthesis of school, special, and public libraries. The characteristics of libraries of this type are matched with groups and their information needs as in Table 1, as follows:

- Public Library: 1) When both subject and purpose of information need is the user her/himself.
- Special library: 2) When the subject is the user her/himself, but the information is not for the user.
- School library: 3) When the subject is other than the user, but the information is for the user.
- Academic library: 1), 2), 3) A synthesis of public, special, and school libraries.

4. Discussion

So far, we have suggested a deductive 4-type categorization of libraries based on the characteristics of information needs in order to overcome weaknesses

in the traditional 4-type categorization. Although the suggested approach provides a clear criterion among the types, it appears to still be limited in an ability to cover all libraries in each type. Thus, the approach needs further fine adjustment by using common environmental factors in each type of library. For instance, a public library is based on people's self-generated information needs in a community. These people's needed information are typically wider than that of special library users or school library users. Common public libraries, however, hardly have enough managerial resources to cover the wider information need. Therefore, public libraries tend to concentrate on common information needs, which most people have, such as recreational reading, and life-long education. When the common tendencies in each type, such as resource limitation in public libraries, is considered, the definition of a public library can be more fruitful.

Despite the limitations when not considering environmental factors, the suggested 4-type categorization can be implemented for library management. First, it provides evidence for prioritization in resource allocation for functions and services in library management by clarifying of the major user group. This is especially helpful when the environment deteriorates and budgets are decreased. The suggested 4-type categorization can clarify which user group should be focused upon with decreased resources.

It can also be more meaningful when the 4-type categorization is applied to the analysis of external (environmental) factors to a library. Traditionally, libraries identify users, fellows/competitors, pro-

viders, governing bodies, and pressure groups as task environmental elements. These task environments, however, are not enough, especially for school and special libraries. For instance, school libraries would ignore a consideration of teachers and parents as the subject of information needs of students within the traditional framework. In special libraries, the executive group in an organization would be recognized as a governing body of the library. Based on the suggested categorization, the executive group would have both the role of governing body and also a role of the purpose of information need.

From this viewpoint, users in the traditional categorization can be extended to the "*stakeholders*" in the suggested categorization. The purpose of library management can be shifted from provision of satisfaction to the users to provision of satisfaction to the stakeholders, which include users, subjects of information needs, and purposes of information needs. One of the critical points in this conceptual paper is the provision of evidence to strengthen the significance of stakeholders in library management. The concept of stakeholder can be considered with a comparison to the concept of customer (Kim, 2008).

The suggested 4-type categorization of libraries based on the characteristics of information needs can be applied in library practice. For instance, school libraries can strengthen the consideration of teachers and parents in its management. When a school library plans a satisfaction survey, the inclusion of teachers and parents as well as students could improve the usefulness of the survey results to the library management.

5. Conclusion

In this conceptual paper, we identified inductive and enumerative characteristics in the current 4-type categorization of libraries and possible characteristic weaknesses. We also identified universality and acceptability of the 4-type categorization. We then attempted to overcome the weaknesses, which derive from inductive and enumerative characteristics within the 4-type categorization framework, by providing deductive and rational criteria for the categorization based on information behavior. The suggested two new criteria are: the subject of information need, and the purpose of information need.

Based on the suggested criteria, a public library can be defined as a library that serves users that primarily have self-generated information needs for the users themselves. In the same manner, a special library can be defined as a library that serves users who have self-generated information needs, but the needed information is not for the users, but others such as their organizations and/or customers. A school library can also be defined as a library that serves users who usually have imposed information needs, but the information is for the users themselves. Finally, an academic library can be defined as a synthesis of public, special, and school libraries.

The suggested 4-type categorization can support an understanding of the purposes, roles, and functions of library types. Practically, the categorization can provide evidence to prioritize functions and services in a library for resource management. Furthermore, the categorization also suggests the shift from users as an environmental factor to library management to stakeholders as a core factor for library management. Additionally, this paper is also meaningful as an attempt to strengthen the conceptual link between the areas of library and information.

The suggested 4-type categorization, however, has limitations when covering the whole range of libraries in each type. This is in spite of its strengths, such as clear differentiation among the library types. To cover the complete range of libraries, the categorization should be further refined by considering common environmental tendencies in each type. The refinement would support a strengthening of the theoretical bases of library and information science and reinforce the scientific foundation of library management.

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