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# The National Site Licensing of Electronic Resources: An Institutional Perspective

**Xiaohua Zhu**


## Abstract

While academic libraries in most countries are struggling to negotiate with publishers and vendors individually or collaboratively via consortia, a few countries have experimented with a different model, national site licensing (NSL). Because NSL often involves government and large-scale collaboration, it has the potential to solve many problems in the complex licensing world. However, not many nations have adopted it. This study uses historical research approach and the comparative case study research method to explore the seemingly low level of adoption. The cases include the Canadian National Site Licensing Project (CNSLP), the United Kingdom's National Electronic Site Licensing Initiative (NESLI), and the United States, which has not adopted NSL. The theoretical framework guiding the research design and data collection is W. Richard Scott's institutional theory, which utilizes three supporting pillars—regulative, normative, and cultural-cognitive—to analyze institutional processes. In this study, the regulative pillar and the normative pillar of NSL adoption—an institutional construction and change—are examined. Data were collected from monographs, research articles, government documents, and relevant websites. Based on the analysis of these cases, a preliminary model is proposed for the adoption of NSL. The factors that support a country's adoption of NSL include the need for new institutions, a centralized educational policy-making system and funding system, supportive political trends, and the tradition of cooperation. The factors that may prevent a country from adopting NSL include decentralized educational policy and funding, diversity and the large number of institutions, the concern for the "Big Deal," and the concern for monopoly.


Keywords: Electronic Resources Acquisition; Organizational Change; Institutional Theory; Information Policy

## 1. Introduction

The concept of the site license came from the software industry. It initially meant the legal right granted by a software company for a fee to produce copies of a piece of software for a given location such as a company or a school. In the transition from a print to a digital world, information providers (publishers, vendors, and aggregators) adopted this method widely, "licensing" the access to information resources rather than "selling" the information products to libraries. Since the mid-1990s, site licensing

Ph.D. Candidate, School of Library and Information Studies, University of Wisconsin - Madison.
E-mail: xzhu2@wisc.edu

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has been a common practice in the library field, especially among academic libraries. License negotiation became a crucial and painstaking task for both the publishing industry and the library world. While academic libraries in most countries were struggling to negotiate with information providers individually or collaboratively via consortia, a few countries began to experiment with a different model, national site licensing (NSL), which seemed to have the potential to bring advantageous solutions to many problems in the complex licensing world because of the involvement of government and the power from large-scale collaboration.

Given that the model seems beneficial, it is counterintuitive that all nations did not adopt it. This paper tries to explain the seemingly low levels of adoption using the historical research approach and comparative case study approach. It analyzes and compares the social contexts (from the mid-1990s to the mid-2000s) of three countries that did or did not adopt NSL. Two influential examples of NSL adoption, the Canadian National Site Licensing Project (CNSLP) and the United Kingdom's National Electronic Site Licensing Initiative (NESLI), and one country that did not adopt NSL, the United States, were chosen as cases for analysis. This paper first describes the social contexts of the three cases, then analyzes the nature of NSL by analyzing the adoption process and its affecting factors. Based on the analysis of the three cases, the author proposes a preliminary model with factors that may facilitate and may prevent the adoption of NSL. The analysis is framed in Scott's (2001) Institutional Theory. Simply put, NSL as a social phenomenon was a new institution created in the context of a larger process of institutional change—the licensing of electronic resources. It was structured by existing institutional processes and forces, which can be understood using the concepts of the regulative and normative pillars of institutions that Scott proposed in his *Institutions and Organizations* (Scott, 2001).

## 2. Licensing, Library Consortia, and National Site Licensing

### *2.1 Licensing*

Licensing was not an entirely new concept to libraries. Since the 1980s, libraries had been contracting or leasing computer equipment, CD-ROMs, and certain information services. In the mid-1990s, with the rapid growth of information resources in digital formats, publishers and vendors began to widely use contracts and licenses when selling or leasing information products to libraries. Since then, the practice has remained in use: libraries have been required to sign license agreements with publishers and vendors as a routine part

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of subscription. In most cases, libraries are purchasing the right to access a product for their patrons for a period of time. During this period, the library and the information provider are bound by a legal agreement, a mutually acceptable set of understandings and commitments arrived at through discussion and negotiation between licensers and licensees (Johnson, 2003). From the information providers' perspective, the purpose of using licenses and contracts is to provide effective protection for intellectual property in the digital environment because of the insufficient protection mechanism of copyright law with regard to electronic resources. They expect to achieve a balance between copyright owners and public interests in this way, especially given the easy-to-diffuse nature of digital information. Although dealing with licenses has been routine for academic libraries for many years, in the mid to late 1990s, such negotiations could be very lengthy and difficult to handle for the libraries, partly because all the terms, conditions, and pricing models were offered by the information providers. Individual libraries were rather passive in the negotiation process.

### *2.2 Library Consortia*

A library consortium is a cooperative organization formed by two or more libraries in order to share resources according to a contract or an arrangement signed voluntarily by each member. It may or may not have an institutional presence; however, if its activities are regulated by contract or arrangement, it must assume certain responsibilities, and it usually has a financial budget. The origin of library consortia can be traced to the 1930s in the United States (Kopp, 1998), and they have been developing rapidly in the library field throughout the world in the past fifteen years as an effective way to negotiate with publishers and gain favorable license agreements. Libraries of all kinds realized the economics of scale that can be achieved through group purchasing and licensing (Scott, 2003). With the high cost of electronic resources, the ever-decreasing purchasing power of libraries, and the complexity of license agreements, libraries banded together to achieve economic savings and take advantage of centralized, expert management of licenses. Librarians have established consortia with different scopes—local, state, regional, national, and international. Not all libraries adopted the consortial approach, but many consortia, especially those in the developing countries, have achieved great value for their member libraries and research institutions and have gained more power in the digital market. Moreover, as a group, librarians have a greater voice in the information market (Alberico, 2002).

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### *2.3 National Site Licensing*

The idea of a "national site licensing model" appeared as early as 1992, when "site licensing" was widely adopted in electronic journal practice. The initial vision of NSL was for it to be a model for publishing serials, with which end-users received issues of serials on a regular subscription basis but at a far lower price (Kutz, 1992; Hunter, 1992). Over time the definition of NSL changed, but it was not always clear. Just as Turner (1999) said: "A National Site License is one of those simple concepts that are never quite as straightforward as it might appear at first sight." In this paper, NSL is defined as the site licensing arrangements that involve a great number of libraries across a country and are not confined by geographic proximity (such as certain states or provinces). It does not always mean that all citizens of a country have access to certain licensed digital information equally. "National" usually means countrywide in relation to a particular sector, such as the higher education sector and/or the research sector. For example, NESLI served the higher and further education and research communities in the United Kingdom; CNSLP served its 74 participating universities in Canada. Other organizations that appeared in the same period of time, such as ANKOS (Turkish Academic Library Consortium), HEAL-Link (Greek Academic Libraries), Bibsam (Swedish Library Consortium), and CALIS (China Academic Library & Information System), had similar yet smaller-scaled NSL practices (Kohl, 2004). Only on very rare occasions did a license give all citizens of a country equal access to the resource in question. For example, in Iceland, the government provided central funding for licensing electronic resources for all of its citizens to access ("Ex Libris signs contracts," 2001; Van de Stadt, 2007).

## 3. Institutional Theory (IT)

Scott's (2001, p.49) institutional theory is helpful in understanding the nature of NSL as a phenomenon in library practice. Scott defines institutions as "multifaceted, durable social structures, made up of symbolic elements, social activities, and material resources." From this point of view, NSL can be seen as an institution adopted by the library field in some countries. NSL as a complicated social phenomenon has existed for fifteen years and therefore is a durable, multifaceted social structure. The existence of NSL involves the publicity of the concept of NSL (symbolic element), the actual licensing practice carried out by NSL organizations/projects (social activities), and the personnel and monetary transactions related to the licensing practice (material sources). However, how and why was this institution created and adopted in certain countries? Why

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did others not adopt it? In answering these research questions, this paper applies Scott's theory of institutional construction, diffusion, and change process to the analysis of NSL.

According to Scott (2001, p.95), to study institutional construction or creation is to understand "the processes and conditions giving rise to new rules and associated practices;" to study institutional change is to examine "how an existing set of beliefs, norms, and practices comes under attack, undergoes delegitimation, or falls into disuse, to be replaced by new rules, forms and scripts." However, "institutions do not emerge in a vacuum; they always challenge, borrow from, and, to varying degrees, displace prior institutions." This paper interweaves the analysis of institutional construction with institutional change. It not only analyzes the external factors and internal factors that gave rise to the NSL by looking at the actors that played a role in the creation and adoption of NSL, but it also examines how the new institution differed from and borrowed from previous experiences. In addition, it also touches upon the diffusion of a new institution across space and time.

The three pillars defined by Scott provide a frame for analyzing the institutional process of NSL adoption. The three pillars that make up or support institutions include the regulative pillar, which is composed of rules and laws legally sanctioned; the normative pillar, which is composed of social beliefs and norms both internalized and imposed by others; and the cultural-cognitive pillar, which is composed of shared logics of action and common beliefs taken for granted by people within certain contexts. In this study, the regulative pillar and the normative pillar of NSL are examined. Although the cultural-cognitive pillar is also an important element of institutional adoption, it is beyond the scope of this study and would be a good topic for future research.

## 4. Methodology

### *4.1 Historical Case Study Research Method*

This paper employs a historical analysis research strategy to analyze the adoption of NSL from the mid-1990s to the mid-2000s. Historical research methods are particularly suitable for developing a rich understanding of a social world, for examining the past as a means to understand the present, and for explaining how and why the present came to be (Singleton & Straits, 1999, p.376). In addition, the comparative case study research method is used in this paper. As a research strategy that focuses on "understanding the dynamics present within single settings" (Eisenhardt, 1989, p. 534), case studies are widely used in social science research and are also gaining popularity in library and information studies. Yin (2003,

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p.1) points out, "case studies are the preferred strategy when 'how' and 'why' questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context." Eisenhardt notices that this method is particularly appropriate when "little is known about a phenomenon, current perspectives seem inadequate because they have little empirical substantiation, or they conflict with each other or common sense" (Elisenhardt, 1989, p.532). Given the nature of NSL as a contemporary institutional phenomenon (as explained in section 3) and the inadequate research on the NSL model, especially the cross-country analysis on this new phenomenon in the library field, the case study research method is particularly well-suited for this analysis.

Case studies can be used to provide description, test theory, and generate theory (Eisenhardt, 1989). In this paper, the method is primarily used to provide description and explanation, to answer "how" and "why" questions within the framework of institutional theory. Although theories have different uses in case studies, in this paper, the use of institutional theory is "to create an initial theoretical framework" as a "guide to design and data collection" (Walsham, 1995, p.76). At the same time, to follow Walsham's suggestion, the study "preserve[s] a considerable degree of openness" in the "iterate process of data collection and analysis" so as to allow for potential new ideas and new perspectives.

"Theoretical sampling" (Glaser & Strauss, 1967) or "purposeful sampling" (Patton, 2001) are recommended for doing comparative case studies. That is, the researcher should select cases of "extreme situations" and "polar types" (Pettigrew, 1988) that are likely to be "information-rich" (Patton). In this study, two cases of NSL adoption—the UK and Canada—were chosen based on theoretical reasons: (1) NSL is a relatively new and experimental phenomenon and there are not too many cases to choose from, (2) the UK's and Canada's NSL projects have longer histories than similar projects going on in other countries, and (3) the UK's and Canada's NSL projects are more mature and stable in terms of operation and have gained worldwide reputations in the library field (Fox & Lam, 2003; Elliott, 2001). Therefore, these two cases are more "transparently observable" (Pettigrew, 1988) than their counterparts in other countries. The United States, a case of non-NSL adoption, can be viewed as another "polar" of the phenomenon. As a G8 country (the Group of Eight most industrialized countries) along with the UK and Canada, the US seems to have reason to emulate its counterparts. To analyze

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the reasons NSL has not been adopted by the US in the same framework enables us to see the validity of the explanation of the UK and Canada NSL models.

### *4.2 Data Collection Method*

Upon choosing the UK, Canada, and the US as cases for this study, the data collection focuses on information about NESLI and CNSLP and US licensing practice. Following the tradition of historical research, this study heavily relies on primary sources to understand both the contexts and the phenomenon. The primary sources include relevant reports, presentations of the project participants, and website information from the mid-1990s to the mid-2000s. Relevant research articles and monographs were also analyzed as primary and secondary sources.

As mentioned in section 3, institutional theory provided an initial theoretical framework to guide design and data collection. Therefore, the author collected data according to the pillars that are to be studied in this paper—the regulative pillar and the normative pillar. First, research articles on NSL from 1990 to 2005 were searched and identified thoroughly using LISA and other databases. Research on this topic is limited. Most of the relevant articles are empirical research reports written by practitioners within the publishing industry or library consortia management. They focus on the practice of certain projects and therefore have a great deal of duplicated information. However, the limited literature did provide valuable insights concerning the concepts, practices, effects, and potential problems of NSL for understanding the practice and conducting further analysis.

In order to collect data about the related issues that had influenced the adoption and diffusion of NSL, the author searched for information about the context (pillars) of NSL in research articles and monographs. Topics of interest included political systems and educational policies in the three countries, copyright issues related to library services, and library cooperation histories in the countries. These data were especially important in analyzing the different changing processes in different countries within the theoretical framework.

Relevant websites were also important information sources. Since 2003, the author has been collecting information about NSL projects from the NESLI website (now obsolete) (Note 1), the CNSLP website (Note 2), and websites of their related organizations (Note 3). These websites provided firsthand resources on the practice of NSL. The author has collected and analyzed information about the aims, goals, and purposes, progress reports, evaluation

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reports, presentations on meetings and conferences, and news about the major events and changes around the projects.

## 5. Case Sites: Pillars and Processes

### *5.1 Canadian National Site Licensing Project (CNSLP)*

CNSLP was first established in 1999 and began providing access to licensed resources in 2001. It was developed on a consortium basis in a highly cooperative manner. In January 2000, 64 universities in Canada signed an interinstitutional agreement, forming a national consortium and beginning a three-year pilot project to expand the universe of digital information to Canada's academic researchers through the coordinated services and expertise of academic libraries. After the pilot project, the Canadian Research Knowledge Network (CRKN) was incorporated as a not-for-profit organization in order to continue the work of the project (Hoffman, 2003; Debruijn, 2001; Fox & Lam, 2003). By October 2005, there were 74 members in total. This section first describes the regulative and normative environments in Canada to understand the context in which NSL worked, then looks into the process by which NSL was created and adopted.

#### 5.1.1 Regulative Pillar—Educational Policy

In Canada, the responsibilities for educational funding mainly fell under provincial governments. In 1966, when an agreement on federal-provincial relationships was reached, the federal government cancelled its general payments to universities (Hurtubise & Rowat, 1970). As a result, federal central funding for postsecondary education contributed to only a tiny part of the funding sources. For example, in 2001, the federal government spent almost nothing on elementary and secondary education, and it provided only a small part of the total publicly funded education spending for postsecondary education (Statistics Canada, 2003). Further, there was virtually no federal policy present in education (Fullan, 2001, p. 220).

Despite the decentralized educational policy making, the Canadian federal government did take measures to promote education and research capabilities. In the 1997 budget, the government created the Canada Foundation for Innovation (CFI), whose goal was "to strengthen the capability of Canadian universities, colleges, research hospitals, and other not-for-profit institutions to carry out world-class research and technology development." (Note 4) The Canadian academic library community seized the opportunity and submitted to the CFI a joint proposal demonstrating that systematic access to published research constituted an integral component of Canada's research infrastructure.

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Consequently, they secured $20 million Cdn in financial support for CNSLP (Fox & Lam, 2003; Debruijn, 2001). This funding covered an important part of CNSLP initial costs and became a great encouragement to the participating institutions.

In February 2002, the federal government launched Canada's Innovation Strategy. This initiative outlined the government's long-term plan to ensure Canada's competitive position in a knowledge-based economy. To meet the objectives of Canada's Innovation Strategy, Canadians must have access to the largest possible amount of information across the broadest range of subject areas. This strategy represented a growing challenge for libraries and other providers of information (Wilson, 2003), and NSL was well-fitted to this trend.

**5.1.2 Normative Pillar**

1. A Tradition of Cooperation

One might assume that a decentralized educational policy would hinder national-scale cooperation in the educational sector; however, "inter-relationship is a fundamental characteristic of modern Canadian institutions of higher learning" (Hurtubise & Rowat, 1970).

Canadian libraries maintained a good tradition of cooperation. Interlibrary loan appeared at the end of the 19th century as an early form of library cooperation. A report in 1955 shows that more than 97% of the sample libraries practiced interlibrary loan at that time (Spicer, 1955, p. 6). This report also shows that the Canadian libraries practiced many other kinds of cooperation activities, including cooperative book purchases, local interlibrary loans, a union catalogue, and cooperative storage of seldom-used items or duplicates. In the 1980s, the term "resource sharing" entered the library vocabulary (Stuart-Stubbs, 1993) and Canadian libraries began to work actively and collaboratively on the building of the Canadian resources network to ensure the sharing of information and library materials in an effective manner under the advocacy of the National Library of Canada (Clement, 1982).

When the volume of materials available in print and electronically continued to rise and the budgets for collection development continued to decline, libraries in Canada worked more closely. Free or subsidized document delivery was seen as an alternative to fill gaps in journal collections. Many libraries used document delivery to provide access to journals that had been cancelled. In the mid-1990s, the development of library consortia at the national, provincial, and even local levels offered another way to deal with electronic journals (Wilson, 2003). Groups large and small, homogeneous and diverse, were formed to try to achieve savings (Scott, 2003). The consortia license agreements especially benefited smaller

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academic institutions by giving them access to a large pool of resources that was previously unaffordable (Fernandez, 2003). Libraries in Canada formed many successful consortia, such as Alberta Library (TAL), NEOS and The Regional Automation Consortium (TRAC) in Alberta Province, Manitoba Library Consortium Inc (MLCI) in Manitoba, Electric Library Network (ELN) in the province of British Columbia, and Council of Ontario Libraries (COOL) and Ontario Council of University Libraries (OCUL) in Ontario, etc. These consortia played an important role in license negotiations as well as in many other library cooperation activities (Scott, 2003; Ler & Pival, 2004). A cherished cooperative tradition and the mid-1990s prevalence of library consortia provided a strong normative pillar for the adoption of NSL in Canada.

2. The "Big Deal" and Monopoly Concern

A controversial topic related to the adoption of NSL was the "Big Deal." The Big Deal referred to large journal bundles from one publishers or vendor, which usually gave libraries lower prices but required them to subscribe to tens or hundreds of titles of publications from one vendor or aggregator—inhibiting librarians' abilities to select journals across publishers (Gerhard 2005; Peters, 2001). Many observers and practitioners, especially those in the US, were increasingly becoming aware of the negative effects of the Big Deal, and some of them urged others not to participate in the Big Deal (McGinnis, 2000; Van Ordsel & Born 2003). In contrast, CNSLP chose to accept the Big Deal—or even "Mega Deal" since they were negotiating licenses for the whole higher educational sector. CNSLP held its own philosophy that it was not necessary to lower costs by excluding low-use journals and that the Big Deal helped to make low-use journals affordable (Hedley, 2004). The generally optimistic attitude toward the Big Deal enabled CNSLP to serve its community with access to a wide range of electronic resources.

Although the national-scale cooperation among libraries raised some concerns about monopolies in some countries (Helmer, 2002; Turner, 1999; Woodward, 2001a), the author did not find similar concerns voiced by the members of CNSLP in the timeframe of this study. This might be a result of the equal participation and management of its members and their flexibility to work with other consortia. Moreover, a more recent study involving librarians and government agencies in Canada shows that Canadian librarians view academic library consortia as firmly supporting a public good philosophy and government agencies' placement of consortial activities as providing necessary resources for Canadian research (Maskell, 2008).

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### 5.1.3 Adoption Process

After analyzing the regulative pillar and the normative pillar, this section continues to look at the process of the creation and adoption of NSL by CNSLP. As mentioned, Canadian libraries had a good tradition of cooperation and had formed many successful consortia. Most of the previous consortia were initiated by academic libraries within the same educational or political jurisdictions. However, the relatively small size of the Canadian academic community, the low per-capita level of research funds available, and the volatility of currency exchange rates disadvantaged Canadian scholars and institutions in terms of their influence and buying power in the international marketplace (Debruijn, 2001). These disadvantages called for a larger scope of cooperation beyond the provincial and regional levels.

CNSLP came into being in response to this need. The project was spearheaded by the Canadian Association of Research Libraries (CARL) and brought together universities in Canada across ten provinces, two official languages, and diverse degrees and programs. The participating institutions included all research universities offering degrees at the Master's and Doctoral levels as well as the vast majority of institutions offering Baccalaureate degrees. Furthermore, the CNSLP model was inclusive in that all participant universities were committed to licensing a broad portfolio of research content from multiple vendors, with resources available equally to all participants (Debruijn, 2001).

By the mid-2000s, CNSLP had achieved many successes that were hard to reach by individual libraries or small-scale consortia. In particular, they made information providers agree to the following:

- To sign the CNSLP model license agreement, with unique or specific amendments dealt with in separate amending letters.
- To offer a three-year agreement, with fixed pricing in Canadian dollars, that holds annual price increases significantly lower than prevailing rates.
- To commit to a price increase cap in year four, at license renewal.
- To offer an "unbundled" pricing model (i.e., unbundling print subscriptions from electronic access). Several vendors implemented, for the first time, an electronic-based pricing model, with print subscriptions treated as an optional add-on at a deeply discounted rate (Fox & Lam, 2003).

These achievements showed the power of collaboration and the fitness of the NSL model in Canada. In 2003, CNSLP was selected as one of the ten world "success stories" by IFLA.

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### *5.2 National Electronic Site Licensing Initiative (NESLI & NESLi2)*

NESLI in the United Kingdom was a project established by the Joint Information Systems Committee (JISC) in 1998 to promote the widespread delivery and use of electronic journals in the UK and to carry on the licensing of electronic journals on behalf of the higher and further education and research communities. The project was expected not to rely on government funding except for its initial start-up cost and was expected to operate independently and be self-financing after the initial three years. In 2003, NESLi2 was formed as the second phase of NESLI from 2003 to 2006.

#### 5.2.1 Regulative Pillar—Educational Policy

The higher education policy of the UK was complicated, but it generally had become more centralized by the mid-1990s. Historically, the power of higher education policy making was distributed between state governments, local governments, and the educational institutions themselves. However, in the mid-1980s, higher education in the UK began undergoing great changes because of change in government policy (Note 5). One of the changes to education was the arrival of mass higher education: the higher education system expanded dramatically, both in the number of universities and in the number of students. Another was that the government, through a series of administrative measures, reduced the power of the local education authorities over the public sector, abolished the funding structures, and instituted new national bodies directly accountable to the Secretary of State: "the state took on an increasingly *dirigiste* stance in relation to higher education" (Barnett & Bjarnason, 1999). Moreover, the Higher Education Funding Councils for England, Wales, and Scotland officially came into being on April 1, 1993, which signaled the beginning of a more centralized higher education system in the UK (Salter & Tapper, 1994, p. ix). The educational policy and pattern in the UK made the context of library activities in the UK greatly differ from that in Canada. The centralized policy-making and funding allocation required and enabled a deep involvement of the government in library issues.

Other political trends in the UK, such as the desire to build cross-sector partnerships that included archives, educational institutions, libraries, and museums to promote lifelong learning, also provided a great opportunity for NSL adoption. This particular desire was in response to a report of the Library and Information Commission (Library and Information Commission, 2000). In the early 2000s, the British Government also released its *Framework for the Future* for the whole library sector, to promote the modern

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mission of libraries in reading and informal learning (Department for Culture, Media and Sport, 2003). All these trends showed a close relationship between the government and library policy in the United Kingdom, which provided a steady regulative pillar for the adoption of NSL.

**5.2.2 Normative Pillar**

1. Partnership

Similar to Canada, the United Kingdom has a long history of library cooperation. "Partnership" is the term used frequently to refer to cooperative activities. Formal cross-sector cooperation started as early as the 1930s with the establishment of nine Regional Library Systems (RLSs) for interlending and catalogue-sharing (Buckley, 1999). Regional consortia such as M25 Consortium of Higher Education Libraries and Consortium of Academic Libraries in Manchester (CALIM) were also set up to address the new issues in the electronic environment.

A unique feature of British libraries' cooperation activities was the active role of the central government. Since the 1940s, the inability of libraries to provide "speedy access to scientific and technical information" had resulted in increasing government involvement in libraries activities (Beauchamp, 1991, p. 68). The 1986 government report *The Future Development of Library and Information Services: Progress through Planning and Partnership* had a great impact on cooperation. Its philosophies were that "library and information services are a national heritage and require conscious national effort to maintain them" and that "these resources cannot be fully exploited unless provision is coordinated nationally and locally" (as cited in Buckley, 1999). As Dolphin and Brophy (2002) point out, the cooperation tended to be "largely a result of the government agenda in the U.K. in terms of funding for university teaching and research, and initiatives to encourage collaboration, both cross sector and regional, widen access to education and resources, and increase the use of digital content and the Web in learning and teaching."

With encouragement and support from the government, the cooperation tradition in the UK library field had been firmly established. This constituted a second pillar for the adoption of the NSL model.

2. The "Big Deal" and Monopoly Concern

Various stakeholders had expressed concerns about the current and future impact of the NESLI model on the information market. One concern was the Big Deal, which was also discussed by their Canadian counterparts. Practitioners began to realize that "one size does not fit all, and ... different forms of purchasing deals suit different libraries" (Friend, 2002). In addition, some librarians and information

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providers were concerned that NESLI had created a virtual monopoly. If there was "a single system for purchasing journals and accessing the content," then there was a danger for monopoly and the situation should be avoided (Turner, 1999). Subscription agents suggested that separating the role of negotiation with publishers from the role of supplying the services could overcome this problem (Woodward, 2001a). Many libraries using other subscription agents and being members of other purchasing consortia expressed a wish to maintain some independence in how they undertook their business (Eason, 2001). In response to these concerns, JISC admitted the necessity for collaboration with regional consortia; however, at the same time, it insisted that "the national journal procurement approach adopted in the UK through NESLi2 could be more powerful if negotiations were undertaken for the whole academic community rather than those institutions willing to subscribe" (Joint Information Systems Committee, 2005). The response showed that the primary goal of NESLi2 was national purchasing power rather than individual needs and that a certain degree of "monopoly" might actually help to achieve this goal.

**5.2.3 Changing Process**

In comparison to Canada's consortia-based NSL model, NESLI had many distinct features. First, it largely relied on the effort of the JISC, a government agency representing the UK Higher and Further Education Funding Councils in improving access to electronic journals. NESLI was part of JISC's Distributed National Electronic Resources (DNER) (Note 6), which provided a framework of trusted and validated electronic information sources in different disciplines and subjects for learning, teaching, and research. It was planned as a replacement for the three-year Pilot Site Licence Initiative (PSLI), a government-funded effort to reduce the cost of printed journals (Harwood, 2000). Simply put, it was a government-initiated project, which is not surprising, given the government's role in the UK's education and library cooperation activities.

Second, NESLI's commercial operation model made it distinct from many other consortia activities. At the beginning of the project, it contracted a Managing Agent (MA) composed of Swets Blackwell, a leading global subscription agent, and Manchester Computing at the University of Manchester to provide services for a three-year period, from 1999 to 2001 (Elliott, 2001; Woodward, 2001b). Day-to-day activities undertaken by the MA included negotiating deals with publishers, handling subscriptions, providing a single interface for access, and encouraging the use of the NESLI Model License (Woodward, 2001a).

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However, because of an unsuccessful MA bid after the initial phase, the values and roles of NESLI were reconsidered, and the management structure was changed. In 2002, the negotiation task was separated from the managing role: JISC replaced the MA, and Content Complete Limited was appointed as the negotiation agent for NESLi2 (NESLI website). JISC's replacing MA showed that the goal of self-support had not been reached and that the project was still dependent upon government support.

National site licensing in the UK was generally reported as successful and helpful (Eason, 2001; Harwood, 2000; Turner, 1999). The adoption of the standard license had led to an increasing uniformity among licenses, which was vital to the development and acceptance of e-journals in the marketplace. Moreover, NESLI's practice showed that central negotiation on prices was not only possible but could benefit libraries by effectively explaining the needs of libraries and users to publishers (Turner, 2001). In addition, the "one stop shop" policy for electronic journals from all publishers was valued by the users (Eason, 2001).

### *5.3 A Non-NSL Case: The United States*

This section analyzes the US as a non-NSL case. The author discusses the context from the same aspects as the discussion in the previous cases—educational policy, library cooperation, and Big Deal concerns—in order to provide a basis for comparative analysis in section 6.

#### 5.3.1 Regulative Concern—Educational Policy (Note 7)

With a federal form of government, the educational system in the United States was highly decentralized during the time frame of this paper. Educational laws, systems, and programs varied from state to state. Even in the realm of higher education, in which most countries had a relatively centralized policy, the US government only played a minor role. Education was, to a large extent, a local and regional concern. The lack of involvement of federal government might be best illustrated by the small portion of the funds provided by the federal government for education (Sen, Partelow, & Miller, 2005). The US educational system was based on the philosophy that "government ought to be limited and that control of many public functions, such as schooling, should rest primarily with states and local communities" (Center on Education Policy, 1999). Although the federal government had become increasingly involved in higher education policy by enacting federal laws and administrative regulations, the American higher education system was still a largely state-based decentralized system (Gehring, 1998). In the early 2000s, the federal government began strengthening its role in education-related issues

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under George W. Bush's administration, but it had certain priorities, such as K-12 education and children in economically disadvantaged families (Center on Education Policy). The higher education sector was not affected until the late 2000s (Eaton, 2010). Furthermore, even though the federal government had influenced educational policy, it seldom interfered with the practices of academic libraries other than federal deposit libraries. This decentralized educational system could have been an obstacle to nationwide library collaboration in the US.

**5.3.2 Normative Concern**

1. Cooperation Tradition

Nationwide collaboration on licensing electronic resources seldom happened in the US (Note 8), although academic libraries in the country did have a long history of cooperation. As early as 1876, the newly established American Library Association created a Committee on Cooperation in Indexing and Cataloguing College Libraries to call upon academic libraries to adapt to the cooperative cataloging movement (Alexander, 1999). In the 1890s, shared indexing and cataloging were put into practice and "interlibrary loan lending emerged as a focal point of library cooperation" (Alexander). Through the 20th century, library cooperation was an important issue in the US library field. The consortium, which emerged as early as the 1930s and prospered in the 1960s –1970s, was one of the library cooperation forms (Kopp, 1998). Created way before the "digital age," the US consortia had worked on issues such as interlibrary loan, collaborative cataloging, and staff training. Scholars pointed out that US consortia tended to have more functions than those arising in Europe, which were predominantly developed for the purpose of licensing electronic resources (Rowse, 2003).

Due to the deeply rooted tradition of cooperation and the existence of cooperative bodies such as library consortia, the US libraries naturally worked together to address the licensing issue collectively. As a result, there was a boom of consortia in the mid-1990s, and by the mid-2000s, more than 100 consortia (Note 9) had been created to deal with electronic resources licensing. The New England Law Library Consortium, the Virtual Library of Virginia (VIVA), and OhioLINK were among the most successful consortia.

2. The "Big Deal" and Monopoly Concern

Although consortial activities provided a seemingly strong basis for larger-scale cooperation, US concerns about the "Big Deal" and monopoly were increasingly prevalent and might have created barriers for NSL adoption. With plenty of experiences of consortia site licensing, library leaders began to realize "the disadvantage of dealing through consortia for any reason other than discount" (Goodman,

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2000). Rather than simplifying purchases, consortial licensing sometimes added another layer of negotiation (Goodman, 2000). The University of Wisconsin Libraries and dozens of other research libraries were "convinced that the Big Deal serves only the Big Publishers" and stopped buying the Big Deal (Frazier, 2001).

Some unique features of US higher education are worth exploring. There were more than 2,000 four-year institutions and more than 1,000 two-year institutions in the US during the period of this study, and these institutions showed great diversity in scale, type, funding, focus, numbers of students and faculty members, etc. Libraries serving these different institutions had different emphases on their collection development; therefore, one form of licensing could hardly fit all. US libraries usually sought cooperation with their neighboring institutions or their counterparts in other regions, and typically they participated in multiple consortia to fulfill their needs. Diversity and the number of higher education institutions were important factors that prohibited acceptance of the Big Deal and NSL adoption in the US.

## 6. Discussion

The above description and analysis of the three cases provide data for a more generalized understanding of NSL adoption. Based on the analysis, this paper proposes a preliminary model with factors that may facilitate or prevent the adoption of NSL. This section first briefly describes these factors then discusses the adoption of NSL from the institutional perspective. It is important to note that the creation and adoption of an institution is often a complicated process involving the collective effect of different factors; therefore, the factors proposed in this section are not isolated variables. In other words, the adoption or non-adoption of NSL is not determined by any single factor discussed in this section.

### *6.1 Factors Giving Rise to the Adoption of NSL*

1. Need for New Institutions

As Scott (2001) points out, it is useful to distinguish between the processes or factors external to the institutional system versus forces internal to the system. The creation of NSL occurred due to internal and external factors. For both the UK and Canada, the external factors included the new digital technology, changes in the publishing industry, and new copyright issues. As discussed at the beginning of this paper, these factors gave rise to the use of the license agreement in purchasing access to digital products. These factors also led to the decreasing buying power of libraries, which was the internal force that accounted for the creation of the new institution: more collaborative efforts

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were needed to cope with the external change and regain the power of libraries. It turned out that NSL had created values in the UK and Canada, and the greatest contribution was that NSL contributed to the overall improvement in education and research of the whole nation and were regarded as significant parts of national information infrastructures.

2. Centralized Educational Policy and Funding

In the UK, the centralized education policy-making and funding system provided NSL with a favorable regulative environment. NSL fit well with the centralized educational system because it enabled nationwide e-resources acquisition and coordination. The central government not only provided the start-up financing but also replaced the Managing Agent when the project encountered difficulty in operation. Although the centralized educational policy is an important factor in NSL adoption, it is not a determinant one. Canada adopted NSL with a decentralized educational system because there were other factors that facilitated the adoption.

3. Supportive Political Trends

In Canada, the federal government was trying to promote Canadian education and research capabilities. The funding from the Canada Foundation for Innovation covered an important part of the CNSLP initial cost and became a great encouragement to the participating institutions. Similarly, in the UK, NSL fit well with the lifelong learning trend and cross-sector partnerships that were advocated by the government.

4. Cooperation or Partnership Tradition

The cooperation or partnership tradition was deeply rooted in the educational institutions and libraries in both Canada and the UK. The existing cooperation activities, including library consortia, showed that NSL as an institution was not completely new but rather a novel combination of earlier institutional components (Scott, 2001, p. 192). Having a cooperation tradition, however, does not ensure the adoption of NSL, as shown in the US case.

### *6.2 Factors Potentially Preventing the Adoption of NSL*

1. Decentralized Educational Policy and Funding

Canada and the US, as federal countries, both have a decentralized educational policy. More often than not, it is difficult to develop nationwide projects in a decentralized environment because such projects need large amounts of funding as well as great cohesion. In Canada, there are other factors including favorable political trends that provided support for the adoption of NSL, while in the US there is a lack of opportunities to work toward such a large-scale project. Therefore, the decentralized education system could be an important factor in

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preventing NSL, but its function is not decisive. Other factors also need to be considered.

2. Diversity and Magnitude of Institutions

Diversity was and still is a distinct characteristic of the US educational system. The great diversity might have been an obstacle to NSL adoption in that diverse institutions have various requirements that can hardly be achieved by a nationwide solution. Furthermore, having a large number of institutions, as the US did, made it even harder for a central agent to negotiate license agreements for the whole educational sector.

3. The "Big Deal" and Monopoly Concern

There were concerns about the "Big Deal" and/or monopoly in all the three cases; therefore, these could be potential negative factors to NSL adoption. In Canada and the UK, the supporting voices were still powerful because the national information infrastructure was a greater concern. In the US, however, the diversity of the educational institutions arguably made the Big Deal and monopoly greater concerns than in other countries.

### *6.3 The Different Approaches in Adopting NSL*

Given that negative factors also exist in Canada and the UK, it is necessary to view their NSL adoption processes from another perspective. Canada's NSL project developed from a consortia base and thus could be seen as a bottom-up changing process. Although the federal government played a role in funding and promoting NSL, the decentralization of educational policy making in Canada limited the involvement of the federal government in educational affairs. Therefore, the normative pillar—the cooperative tradition rooted in the library field—was the basic strength for creating and adopting NSL, and the efforts of library field organizations were more fundamental in this process. Canadian librarians were well aware of the importance of collaboration in a changing environment and seized the great opportunity to get government recognition and federal funding. In comparison, the UK's NSL project developed from a national government project. It can be viewed as a top-down changing process; therefore, the regulative pillar was more noticeable. The UK's central government had always played an important role in educational affairs as well as in library coordination. It exercised centralized educational policy and was materially involved in the promotion of education and research in the whole country. NESLI was one of many measures taken by the government to advance research and education resources. Although it was expected to be self-supported, by the mid-2000s the involvement of the government was still necessary.

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### *6.4 Institutional Perspective*

NSL is a new institution created in practice and adopted by a few countries. As Scott (2001, p.203) stated: "The seeds of change are lodged both within and outside institutions." The practices of the UK and Canada show that the "seeds" of change and creating new institutions lay both within the existing institutions—the deficiency of individual libraries and the need for collaboration—and outside the institutions—the pressures from technology, the publishing industry, and increasingly complicated copyright issues. Libraries in various countries are still facing the same pressures, problems, and needs; therefore, NSL as a new form of institution has the potential to be diffused to other countries. However, the comparisons of Canada, the UK, and the US suggest that the decision of whether to adopt NSL also depends on other variables, such as government support, a cooperation tradition, and concerns about monopoly. These variables are discussed in more detail in the following paragraphs.

First, is there a source of strong regulative support? Government is often essential in large-scale reform (Fullan, 2001). The analysis of the UK and Canada cases reveals that the central governments played important roles in implementing NSL, though the roles varied. The government's stance and political trends always influence public affairs, all the more in national-scale cooperation. Both CNSLP and NESLI fit with the government policies; therefore, they got enough resources and support from their central governments, which was a significant factor to the successful creation of the new institution. In the US, however, the lack of regulative support was one of the obstacles to the adoption of the NSL model.

Second, the support of a normative pillar is also required. Whether there is a deep-rooted tradition of cooperation might be a key factor to successful adoption of NSL. Working on a national scale usually involves significant challenges in decision making, communication, and mutual understanding far beyond the challenges for smaller groups. These challenges call for a cooperative manner of all participating institutions, which is usually built on long-term cooperation activities. Without the support of this pillar, the problems arising from national-scale cooperation may counteract the benefits achieved from such activities.

Last but not least, whether or not adopting NSL depends on whether NSL is suitable for the particular social context. The problems of NSL, such as having to accept the Big Deal and the potential to create a monopoly, indicate some limitations of this model. These problems could be more severe in some countries with diverse educational institutions and varying user needs such as the US, while they may be less

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severe in countries with smaller and relatively homogenous research and educational sectors. Therefore, the applicability of NSL relies much on the specific social and political conditions in specific countries. However, it should also be pointed out that NSL as a new institutional form is not stagnant. It has the ability of adaptation. For instance, in spite of their different problems, the NSL programs in the UK and Canada still work well, and customization has become one of their future directions.

## 7. Conclusion and Limitations

NSL has created great benefits for the countries that adopted it and has the potential to continue contributing to licensing solutions in these and other countries. However, the future of the national site license is not clear. The adoption of NSL needs the support of both the regulative and the normative pillars and has to be considered in specific social and political conditions. NSL is not and will not be the only form of consortial licensing; other types of library consortia such as local and homogenous consortia will continue to be necessary in licensing negotiations because they have far more flexibility than NSL. How far NSL can go beyond its current state may depend on its self-adjustment ability in the changing context.

This study has several limitations. The narrow scope of the primary sources limits the validity and generalizability of the findings. To solve this problem, a survey of the key stakeholders, including government policy makers, leaders of the national consortia, university and research library policy makers, and leaders of the publishing and databases industry, would be very helpful. Their understandings and attitudes are of great importance to the NSL model. In addition, the current study is framed in a particular theoretical framework—the Institutional Theory—and the factors and variables analyzed are limited. To further understand the NSL phenomenon, this limitation should be overcome by looking at more potentially influential factors, especially the cultural-cognitive pillar in the Institutional Theory. Last but not least, more cases should be studied to gain a holistic picture of the phenomenon. In doing so, a more contemporary approach should be adopted to overcome the limitation of historical investigation.

## Notes

Note 1 The NESLI website was http://www.nesli.ac.uk; the NESLi2 website was http://www.nesli2.ac.uk/index.htm. NESLi2 was the UK's national initiative for the licensing of electronic journals on behalf of the higher and further education and research communities, 2003–2006. Both

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websites are now obsolete.

Note 2 The Canadian Research Knowledge Network website is http://www.cnslp.ca/. This is the website for the Canadian National Site Licensing Project.

Note 3 For example, the Joint Information Services Committee (JISC) is the body that oversees the information systems and technology requirements of the UK's higher education funding councils. It is funded by the UK Further and Higher Education Funding Councils and is responsible for the NESLI. Its website is http://www.jisc.ac.uk/.

Note 4 The Canada Foundation for Innovation homepage is http://www.innovation.ca.

Note 5 The change in the education policy of the UK government was caused by many factors, including economic factors, global change in higher education, and so on. And the change process and outcomes are more complicated than they appear to be. These issues have been discussed in detail by Barnett and Bjarnason (1999), Salter and Tapper (1994), Scott (2000), etc. Limited by length, this paper does not provide analysis of these factors.

Note 6 The DNER website is http://www.jisc.ac.uk/pub/#dner.

Note 7 In stead of using "pillars," I use "concerns" because NSL was not an institution in the US and therefore the pillars supporting the institution did not exist.

Note 8 The only exception was the national negotiation with LexisNexis on the Academic Universe product in 1998. The final contract covered more than 3.7 million full-time equivalent (FTE) students, said to be about 53% of the total number of FTE students in 4-year higher education institutions in the U.S. (Hane, 1998). This is a good case for future research.

Note 9 By counting the list of consortia on three websites, ICOLC (http://www.library.yale.edu/consortia/icolcmembers.html), USA Consortia (http://sunsite.berkeley.edu/Libweb/usa-consortia.html), and United States Consortia (http://www.galaxy.com/hytelnet/US000CON.html/) (last visit date: 11/20/05).

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