



## The NIH Public Access Policy and Federally Funded Research: An Analysis of Problem Recognition and Agenda Setting



Glenn S. McGuigan

*Penn State Harrisburg Library, Penn State University Libraries, USA*

### ARTICLE INFO

#### Article history:

Received 21 February 2014

Accepted 30 September 2014

Available online 30 October 2014

#### Keywords:

Information policy

Open access

National Institute of Health

PubMed Central

Public policy

Multiple streams framework

### ABSTRACT

This interpretive and descriptive study examines the development of the U.S. National Institute of Health's (NIH) public access policy which requires NIH funded research to be made publicly available through an open access depository, the PubMed Central database. Using elements of Kingdon's (2003) multiple streams framework, Stone's (2012) challenges to the theory of free market efficiency, and her rhetorical characterization of "good weak interests" vs. "bad strong interests," this work explores the rationale behind the development of the NIH open access policy. Based upon this rationale and the current structure of the scholarly publishing system, future implications for other federally or publicly funded research are proposed.

© 2014 Elsevier Inc. All rights reserved.

### INTRODUCTION

This is an interpretive analysis of the U.S. National Institute of Health's (NIH) public access policy. This policy, implementing Division G, Title II, Section 218 of PL 110–161 states as follows:

The Director of the National Institutes of Health shall require that all investigators funded by the NIH submit or have submitted for them to the National Library of Medicine's PubMed Central an electronic version of their final, peer-reviewed manuscripts upon acceptance for publication, to be made publicly available no later than 12 months after the official date of publication: Provided, That the NIH shall implement the public access policy in a manner consistent with copyright law.

[[Consolidated Appropriations Act, 2008]]

In April of 2008, the NIH public access policy was enacted. As related above, the law requires that NIH-funded researchers deposit electronic copies of their peer-reviewed manuscripts into the National Library of Medicine's online archive, PubMed Central (PMC). Since the implementation of the policy, the PubMed Central database has grown to include more than 2.5 million full text scientific articles, with over 700,000 users accessing the database everyday (SPARC Europe, 2012). The NIH public access policy effectively addresses the public's growing need for high-quality health information and promotes accelerated scientific advancement in the biomedical sciences. This policy of requiring "open access" (OA) to federally funded research

published in scientific journals aims to increase access to this knowledge that has been generated, to a large extent, with the support of tax payer financing through federal entities.

This paper seeks to understand the development of the policy by using elements of Kingdon's (2003) multiple streams (MS) framework, with a focus on problem recognition and agenda setting, and perspectives from Stone (2012) regarding "polis realities" of free market efficiency and rhetorical characterization of issues. The paper begins with a background discussion of the scholarly publishing crisis. After this discussion, the author offers an analysis of the NIH policy using elements from the work of Kingdon (2003) and Stone (2012). In conclusion, the author explores the future implications of this policy regarding compliance and availability of other federally funded research.

The rationale behind this approach is to incorporate research orientations from other disciplines, such as public administration, to analyze and discuss library science subjects. Both Kingdon (2003) and Stone (2012) have different philosophical orientations within public administration. The MS framework of Kingdon (2003) is metaphorical in character and views policy making in a chaotic environment "under conditions of ambiguity" (Zahariadis, 2007, 83). The "polis" model of Stone (2012) is both metaphorical and normative, in discussing how "change occurs through the interaction of mutually defining ideas and alliances" (36). For the purposes of this review, both Kingdon (2003) and Stone (2012) are used to identify and discuss problem recognition and the academic library community's response in terms of agenda setting. Library science may benefit from the lens of public administration in order to better

understand the intersection of library issues with public policy and government bureaucracy.

## METHODOLOGY

This work employs a research approach inspired by qualitative inquiry. As a method of interpretative analysis, the author explores the topic as a student of public administration, and as a practitioner of library science, who values access to library and archival collections as being important to a free and democratic society. The strategy of inquiry is a basic interpretive and descriptive study as described by Merriam (2002, p. 6). A basic interpretive and descriptive qualitative study is useful to inductively analyze a phenomenon based upon the analysis of data in order to identify patterns or common themes (Merriam, 2002, p. 6–7). As mentioned above, this analysis approaches the subject by employing elements of Kingdon's (2003) MS framework, with a focus on agenda setting, and perspectives from Stone (2012) regarding "polis realities" of free market efficiency and rhetorical characterization of issues. The paper begins with a background discussion on access to scientific information and to the scholarly publishing crisis. After this discussion, an analysis of the NIH policy using elements from the work of Kingdon and Stone is offered. In conclusion, future implications of this policy regarding compliance and availability of other federally funded research are considered.

## BACKGROUND ON ACCESS TO SCIENTIFIC INFORMATION/SCHOLARLY PUBLISHING CRISIS

Access to scientific information depends upon entrance to venues in which they are published: academic/scientific journals. Traditionally access has been determined by cost, provided by subscriptions from academic libraries, which are under continual pressure to cancel subscriptions (Fernandez, 2003, p. 290). Costs for academic journals (or serials) have escalated with regular frequency as publishers continue the practice of price escalation. From 1986 to 2011, serial (or journal) expenditures for the member libraries of the Association of Research Libraries (ARL) increased 402% with only an increase of 71% for monographs in the same period (Association of Research Libraries, 2012). The average annual percentage increase for all serials was 6% in both 2012 and 2013 (Bosch & Henderson, 2013, Table 4). Average increases vary by discipline as do prices. While the highest average prices are found in the scientific disciplines, such as chemistry (\$4,450), physics (\$3,893), and engineering (\$2,652), average prices in other disciplines such as business (\$1,131) and sociology (\$804), although less, still increase with regularity (Bosch & Henderson, 2013, Table 1).

The extraordinary costs involved in the scholarly publishing cycle may be a result of its curious economic model (McGuigan & Russell, 2008, par. 1). As related by Peek (1996), scholarly (or scientific) publishing depends upon an unusual economic model in that, while authors and editors are often not paid for the labor, libraries purchase access to the content that had been subsidized by the institutions which paid the salaries of the scholars who authored the journal articles (p. 11). Essentially colleges and universities must pay multiple times for the production and distribution of the scholarly journals. The scholarly journal, published within the peer review process, is purchased by academic libraries from the journal publishers where it is used by library patrons, consisting primarily of students and faculty/scholars. After this knowledge/content is processed by the faculty/scholars, new knowledge and research is produced and continues the cycle. The players in the process include the faculty/scholars, who consume and produce the content; the publishers that vet and package the content; the academic libraries that provide access to the content; and in some cases (for the focus of this analysis), federal agencies that sponsor the research. This phenomenon of high prices and frequent price increases makes the scholarly content available only to those with access to the electronic

subscriptions through major research libraries. This ability to increase prices so frequently, a result of the unique nature of academic publishing, limits access to research.

Academic libraries are forced to pay these prices in the traditional subscription model as a result of profit seeking by commercial publishers. One journal is not an equal substitute for another journal which creates a lack of substitutability. "Because authors of research articles are normally expected to read and cite all articles relevant to their research topics, they cannot omit reading an article in favor of a close substitute" (Stoller, Christopherson, and Miranda, 1996, p. 13). This situation of constant price escalation is a result of this lack of substitutability. This leads to a low price elasticity of demand for academic libraries purchasing subscriptions for use by patrons. Therefore, as shall be discussed, the OA approach attempts to offer an alternative business model that changes the dynamics of traditional subscriptions.

The scientific journal publishing industry, as a segment of the larger industry of publishing, encompasses the creation, review, packaging and distribution of knowledge and/or information in multiple formats for use mainly by academic and scientific consumers. In terms of segments, out of a total of \$38.4 billion for the U.S. industry in 2013, the academic and professional scientific journal publishing industry constitutes 28.8% of revenues (IBISWorld, 2013, p. 5). While many of the primary consumers are assumed to be individual scholars and students at colleges and universities (who actually "consume" the content by reading and referencing the material), in many cases academic libraries serve as the intermediary between the publishers and consumers by paying for the content and facilitating access to the published material. The developments in information technology have caused the container of information to change from the paper issues to the electronic format. Scientific research and development in the United States generates revenue of approximately \$134 billion in 2013, with the federal government accounting for 61.3% of industry revenue (IBIS World, 2013, p. 17). Defense research accounts for a large portion of that revenue, but official figures are not available. With the exception of biomedical and defense research, most federally funded research is supported by federal agencies such as the National Science Foundation (United States Congress.House.Committee on Science, Space, and Technology Subcommittee on Investigations & Oversight, 2012, p. 2). In terms of authorship in scholarly publications, the U.S. remains the largest player but China continues to increase its scholarly production (The Royal Society, 2011, p. 14).

The NIH access policy accepts the notion that the electronic version serves as the publication of record. This concept reveals the impact of technology upon the scholarly publishing industry and upon libraries. Technology has dramatically impacted libraries in how they undertake their core mission of providing access to information. Library collection management exists in an environment of change. Over time, various internal and external factors have impacted scholarly publishing. It is possible to view the history of library collection management over time and through the following dimensions: information overload (including the rapid growth of research library collections through the 20th century), the shift from traditional "collection development" or acquisitions to "collection management" (as an integrated activity encompassing "policy, planning, analysis, and cooperative activities"), the failure from the 1950s to the 1980s of cooperative collection development, fiscal constraint (as in the reduced budgets of many academic libraries in the 1980s), and the development of digital information systems (Brinin, Groen, & Thorin, 2000, pp. 23–32). Therefore it is informative to note that the NIH access policy takes technology for granted in terms of the publication and access to the repository.

The evolution to electronic delivery influences how academic libraries fulfill their mission of delivering scholarly resources and services to their patrons. Libraries are experiencing changes that include how patrons seek information, changes in the format of information, and changes in how libraries engage in collection development (McGinn, 2002, p. 110). While there exists an abundance of free information via Web sites,

Download English Version:

<https://daneshyari.com/en/article/358199>

Download Persian Version:

<https://daneshyari.com/article/358199>

[Daneshyari.com](https://daneshyari.com)