

REPORT ON THE

**ASSESSMENT OF ELECTRONIC
GOVERNMENT INFORMATION PRODUCTS**

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by

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Executive Summary

The Federal Depository Library Program (FDLP) has served and continues to serve the American public by ensuring localized access to Federal Government information. The mission continues to be as important today to the fundamental success of our democracy as it was when the FDLP was created. The FDLP's original mandate, to assist Americans regardless of economic, education, or geographic considerations, is one that must not be lost as we strategically and thoughtfully use the tools of the electronic age to enhance that mandate.

Letter to Michael F. DiMario, the Public Printer, from Senators John Warner and Wendell Ford of the Senate Committee on Rules and Administration, May 24, 1996.

Background

Congress established the antecedents to the Federal Depository Library Program (FDLP) in the Act of 1813 to ensure that the American public has access to its Government's information. The mission of the FDLP, part of the Superintendent of Documents (SuDocs) in the Government Printing Office (GPO), is to assure current and permanent public access to the universe of information published by the U.S. Government. Depository libraries safeguard the public's right to know by collecting, organizing, maintaining, preserving, and assisting users with information from the Federal Government. GPO provides that information at no cost to designated depository libraries throughout the country. These depository libraries, in turn, provide local, no-fee access to Government information in all formats in an impartial environment with professional assistance. Any member of the public can visit these depository libraries and use the Federal depository collections.

In order to administer the FDLP, as required by the enabling legislation for the program, 44 U.S.C. Chapter 19, the SuDocs is responsible for the acquisition, classification, format conversion, dissemination, and bibliographic control of tangible and electronic Government information products; the inspection of depository libraries; and the continuing education and training initiatives that strengthen the ability of depository library personnel to serve the public. An emerging new responsibility is to ensure that electronic Government information products disseminated through the FDLP, or incorporated in the FDLP Electronic Collection, remain permanently accessible to the public. Under 44 U.S.C., Sections 1901-1903, and Office of Management and Budget (OMB) Circular A-130, Management of Federal Information Resources, Federal agencies should make all their publications in all formats available to SuDocs for distribution to depository libraries.

This study to assess electronic medium and format standards for the creation and dissemination of electronic information products is an essential step toward ensuring a successful and cost-effective transition to a more electronic FDLP. The three goals of this assessment were to:

- Identify medium and format standards that are the most appropriate for permanent public access;
- Assess the cost-effectiveness and usefulness of various alternative medium and format standards; and
- Identify public and private medium and format standards that are, or could be used for products throughout their entire information life cycle, not just at the dissemination or permanent public access stage.

The Superintendent of Documents will use the results of this work effort to continue to plan and implement the transition to a more electronic FDLP. The five major *specific objectives* are:

- First, with respect to *electronic publishing practices* and plans for Federal agencies (including ways in which the FDLP can best accommodate them), the objective is to provide an analysis of current practices as well as future plans for creating, disseminating, and providing permanent public accessibility to electronic information products, and to identify the standards for software and electronic mediums and formats that are used throughout the product's information life cycle, from creation to archiving but especially at the stage of dissemination for permanent public access.
- Second, with respect to *cost effectiveness* of various dissemination mediums and formats that are, or could be utilized, the objective is to gather information on standards (whether mandated or consensual) that will assist the FDLP in making near-term decisions regarding the cost-effectiveness of alternative mediums and formats for all FDLP participants. This information should also assist participants in long-term planning for permanent public accessibility, and the collection and analysis of overall information life cycle costs.
- Third, with respect to the *practical utility* of various electronic mediums and formats to depository libraries and the public, the objective is to identify *preferred standards* used in various mediums and formats that depository libraries will need to support.
- Fourth, with respect to utilizing standards employed in mediums and formats that can be used throughout *all stages of the information life cycle* (including creation, composition, computer terminal display, encryption, secure digital signature with non-repudiation, and secure transmission capabilities), for electronic dissemination, but especially permanent public accessibility, the objective is to assess standards for basic security services in order to provide for secure and reliable transmission and document interchange.

- Fifth, with respect to standards that are being developed and used *in the private sector*, the objective is to identify existing and planned standards for the purpose of determining what the FDLP must do to accommodate their adoption in terms of hardware/software requirements, staff and user education and training, and budgetary impacts.

Methodology

The study utilized both quantitative and qualitative data collection activities: a survey of a cross-section of 314 Government information products from 24 agencies and interviews with experts. The response rate for the survey was 74 percent. *This cross-section of products was not a randomly selected sample due to cost and time constraints.* Instead, NCLIS and GPO—assisted by various groups, including the library associations represented by the Inter-Association Working Group on Government Information Policy (IAWG), the Federal Library and Information Center Committee (FLICC), the Depository Library Council (DLC), and the Interagency Council on Printing and Publication Services (ICPPS)—developed and refined the criteria for product selection. NCLIS, GPO, and the other organizations asked knowledgeable members of these groups to identify products that met one or more of six criteria.

NCLIS distributed the list of preliminary products to agency Chief Information Officers (CIOs) who were asked to validate and coordinate the final selections with their appropriate agency personnel. In addition, NCLIS asked CIOs to select an agency coordinator. The coordinator's role was to oversee the distribution of product questionnaires to the appropriate respondents and to encourage respondents to complete the questionnaire and return it to Westat.

Product selection was based on six criteria:

- Increased emphasis on electronic dissemination, rather than continuation of paper and microform dissemination;
- Replacement of older electronic mediums and formats with state-of-the-art technologies;
- Adoption of mandated (Government or private sector) and consensual (common agency practice) medium and format standards;
- Adoption and use of preferred mediums or formats that have widespread support from agency, depository library, and user communities;
- Exemplified cost-effective mediums and standards, especially those that can be used throughout the entire information life cycle, rather than the use of expensive customized or shelf packages; and

- Exemplified awareness of the important impact of medium and format decisions on permanent accessibility, authentication, and/or security encryption protection.

The survey requested information on four main topics:

- General information about the product and agency that produced it.
- The product's *current* profile including the kinds of data the product contains, mediums in which it is produced, formats and online approaches used (if applicable); and searchability and retrievability of the product.
- *Future* plans for the product including changes in its data, mediums, and formats.
- Other issues including metadata, permanent public access, permanent retention, authenticity, updating/upgrading plans, user fees, licensing, and public domain.

The qualitative data collection included site visits to three depository libraries, meetings with representatives of five Government agencies, and telephone interviews with six experts. The qualitative data collection included site visits, agency meetings, and expert interviews. Westat conducted site visits to three Federal depository libraries:

- McKeldin Library, University of Maryland College Park, College Park, Maryland
- Washington College of Law Library, American University, Washington, D.C.
- Montgomery County Rockville Regional Public Library, Rockville, Maryland

The purpose of the visits was to discuss the effects of the transition to a more electronic Federal Depository Library Program on the end user and on the services and resources of each library.

Meetings with agency representatives had a twofold purpose:

- To collect qualitative data about electronic Government information products, such as cost-effectiveness of standards, use of locator tools, results of user surveys, etc., that were not covered in the survey; and
- To discuss the procedures for distribution of the questionnaire.

In addition to inviting agency coordinators and respondents, the statement of work specified that Westat invite representatives of the following offices to attend the meetings:

- Public affairs or communications offices,
- Agency printing and publishing units,
- Information technology or electronic information systems offices,
- Agency libraries, and
- Relevant program offices.

The following six agencies agreed to schedule a meeting: Department of Health and Human Services, Department of Education, U.S. Supreme Court, Department of Commerce, Environmental Protection Agency, and the National Archives and Records Administration. Only four of the six agencies chose to discuss the qualitative questions at the meeting. The other two agencies discussed the questionnaire only and agreed to respond to the discussion questions in writing, although only one actually submitted their written questions.

Finally, Westat held four telephone interviews with six content experts. The experts included two webmasters (Linda Wallace from the Internal Revenue Service, and Jerry Malitz from the National Center for Education Statistics); two preservation specialists (Evelyn Frangakis from the National Agricultural Library, and Abby Smith from the Council on Library and Information Resources); and two professors in information resources management (John Bertot and Charles McClure). The purpose of expert interviews was to:

- Solicit opinions of experts on topics not adequately covered on the survey or in the agency meetings,
- Ask questions to provide a broader context in which to view the issues, and
- Explore current initiatives and future directions.

Key Findings

These findings reflect the major results of the survey and qualitative data collection:

Policy and Planning Issues

1. There is an overall lack of Government information policy guiding electronic publishing, dissemination, permanent public access, or information life cycle management, especially as information policy relates to agency missions. Also, there is a lack of overall coordination of these initiatives at the Governmental, branch, or even agency level (pp. 68-69).
2. Responsibility for electronic publishing within agencies is decentralized, diffuse, and unclear. Some agencies either could not

identify or had difficulty identifying the proper respondent within their own agency, or even the person who was responsible for the product (pp. 11 and 14).

3. Some Government agencies are monitoring the information needs of their users to enhance *current* access to electronic Government information products (p. 65).
4. There is a lack of specific planning for product development and technological migration (pp. 34-36; table 23 on p. 42).
5. There is a lack of planning for or consideration of web design approaches that comply with the Americans with Disabilities Act (ADA) (table 6a, p. 29).

Permanent Public Access

6. The concept of permanent public access (PPA) is not well understood. Respondents also had difficulty distinguishing between PPA for electronic products and archiving electronic Federal records with the National Archives and Records Administration (tables 18-20, pp. 38-40).
7. Metadata and their importance to public access are not well understood, particularly as they may affect PPA. Only 27 percent of respondents reported having a metadata record for the products surveyed (table 19, p. 37).
8. For some products, PPA results from the agencies' use of a host disseminator, such as GPO Access (p. 11).

Authenticity

9. There is a lack of understanding of what ensuring authenticity entails, and a lack of planning for or consideration of ensuring authenticity of electronic Government information products (table 21, p. 40).

Product Characteristics

10. Fifteen percent of the products surveyed are not in the public domain, for all or part of the product (table 27, p. 45). In addition, user fees are charged for 30 percent of the products (table 24, p. 43).
11. The most prevalent types of mediums are the web, paper, CD-ROM, bulletin board systems (table 3a, p. 22); the most prevalent formats are HTML, PDF, GIF, JPEG, TIFF, and ASCII (table 4a, p. 25).
12. The most prevalent types of data contained in the products surveyed are textual, numerical, bibliographic, and graphical (tables 2a and 2b, p. 20).

Standards

13. There is a lack of standardization for producing Government information products on CD-ROM (e.g., installation instructions, user documentation) (p. 55).
14. The most prevalent medium and format standards identified in the survey are common agency practice rather than agency-mandated (tables 3b, 4b, 6b, pp. 23, 27, and 30).
15. Some Government agencies have established guidelines or best practices for presenting and organizing Government information products on the web, although full compliance with the guidelines is a goal that has not yet been achieved (p. 64).
16. Some Government agencies are exploring a range of innovative formats and web design approaches for electronic Government information products (p. 57).

Next Steps

As a followup effort, NCLIS indicated that they will use these findings as a point of departure and analyze them in greater depth. It is expected that this followup effort will result in broad conclusions and recommendations to the President and Congress about how the problems and challenges revealed in this study can be constructively addressed to improve current and future public access to electronic Government information.

