

ED.gov Management and Publishing Policies

February 10, 2004

Table of Contents

Purpose of Policies	1
Why You Should Read This Document	1
What This Document Is and Is Not	1
ED.gov Mission and Information Architecture	3
Site Goals	3
Alignment with ED Strategic Plan	3
Legislative Mandates	3
Information Architecture	4
Administrative Roles and Responsibilities	5
ED Senior Management	5
OCIO Development Services Team	5
Office of Communications and Outreach	6
Principal Offices	6
Internet Working Group	7
Funding Model and Contract Support	8
Budget	8
Internet Application Support Contract	8
Coordination with External Contractors	9
Technical Architecture and Operations	13
Centralized Management of Web Servers	13
Technical Architecture	14
Content Management	16
Creating/Posting Content	16
Featuring Content	19
Linking to External Content	19
ED-Sponsored Content	20
Archiving/Removing Content	21
Performance Metrics	22
Measures	22
Methods	22
Reporting	23
Appendices	24
Appendix A: Definitions	24
Appendix B: Contacts	26
Appendix C: Technical Standards and Guidelines	30
Appendix D: Other References	33

Purpose of Policies

Why You Should Read This Document

This document establishes the policies and procedures that the U.S. Department of Education (ED) uses to make information available on the agency's official website at <http://www.ed.gov/>.

ED.gov is the Department's newsstand, library, and marquee. For most Americans, it is the only encounter they will ever have with the Department. ED.gov is a key vehicle for pursuing the goals of the No Child Left Behind (NCLB) Act of 2001. In September 2003, a redesign of ED.gov was launched to make that vehicle more effective. The resulting website is aimed at advancing the goals of the president and the secretary and the mission of this agency.

The redesign aligns to the President's Management Agenda and directly contributes to the strategic objectives cited under the goal, specifically effectively using the Internet to enable citizens to penetrate the federal bureaucracy to access information and transact business. One of the major benefits of the redesign was the renewed focus on our customers' needs. The new site offers "information paths" for our most frequent visitors – students, parents, teachers, and administrators. The redesign also implemented a radically different look, imposed consistent branding and navigation on all content, and introduced extensive templating to make updates more efficient and consistent.

The *ED.gov Management and Publishing Policies* were revised to support the goals of the redesign and to keep pace with advances in technology.

What This Document Is and Is Not

This document provides global guidance to ensure high quality and consistent content, organization, and presentation of information on ED.gov. For the purposes of this document, ED.gov includes the Department's public web servers, with www.ed.gov as the primary entry point, and excludes Federal Student Aid systems, the National Center for Education Statistics, the Education Central Automated Processing System, and other web-enabled business systems.

This document outlines the mission of ED.gov, its technical and information architectures, its content management practices and how its success is measured. *ED.gov Management and Publishing Policies* is intended as the primary reference document for all who publish information on ED.gov. Offices and programs within ED may also produce local guidance that expands upon policy in this document.

This document is not a style guide for content contributors; nor does it provide a complete checklist of procedures for launching Internet projects, although many procedural issues are addressed. **ED and contractor project leaders are expected to consult with the Development Services Group in the Office of the Chief Information Officer before beginning projects that require contractor support.** Specific Department technical standards can be found in Appendix C: Technical Standards and Guidelines. Because technology changes quickly, content contributors will benefit from consulting additional reference materials.

To limit the length of this document, related policies are referenced, not repeated, where appropriate. Links to references are provided at the end of the document, not within text, to ease reading. A limited glossary can also be found in the appendices.

ED.gov Mission and Information Architecture

Site Goals

ED.gov is the first and only contact with ED for many citizens. It must:

- convey the Department's brand and key messages;
- broaden ED's reach to more citizens and new demographics;
- offer intuitive navigation to dynamic, compelling content and accurate, up-to-date information; and
- provide a unified entry point to all of ED's web resources including student aid portals, research and statistics clearinghouses, and more than a hundred ED-funded websites operated by contractors and grantees.

Alignment with ED Strategic Plan

In March 2002, the Department published a Strategic Plan that outlined its goals and objectives for 2002-2007. ED.gov supports the Strategic Plan in the following key areas:

Objective 6.3: Manage information technology resources, using e-gov, to improve service for our customers and partners

ED.gov plays a role in two strategies that support this objective. The first strategy is to encourage customers to conduct business with the Department online. ED.gov is the main entry point for customers to find and use the Department's online information and services.

As a high-profile entry point to the Department's network infrastructure, ED.gov also supports the strategy to ensure security of the information technology infrastructure. ED.gov administrators perform the necessary planning, preparation, maintenance, and monitoring to ensure its security.

Objective 1.3: Increase information and options for parents

The website offers a section of information specifically for parents. The redesign launched in September 2003 aimed to improve ease-of-use for parents and facilitate the expansion of parent-oriented content.

Note: ED.gov's capabilities and infrastructure can help support most of the other Strategic Plan goals and objectives.

Legislative Mandates

ED.gov supports the *Government Paperwork Elimination Act (GPEA)* by providing a technology infrastructure for cost-effective deployment of electronic versions of business process transactions. The ED website also meets the legislative requirements of the *Clinger-Cohen Act of 1996* (formerly called Information Technology Management Reform Act (ITMRA) (P L. 104-106, §§5001-5703) and *Section 508 of the Rehabilitation Act of 1973* as amended (42 U.S.C § 794d), which establish goals for improving the efficiency and effectiveness of ED's operations and delivery of services to the public through the best use of information technology.

Information Architecture

ED.gov highlights the *No Child Left Behind (NCLB) Act of 2001* and integrates the former NCLB website. Content is divided into NCLB, audience and topic zones, and it is these zones that provide the framework for the site. Categories within each zone feature Editor's Picks, which represent a subset of the content the Department has to offer on a subject, including links to outside sources of information.

1) The NCLB zone contains content that further defines the goals of the law. It is divided into the following categories, which represent the four pillars of No Child Left Behind.

- Stronger accountability for results
- More local freedom for states and communities
- Encouraging proven education methods
- More choices for parents

2) The audience zone contains content that has been written for, or is specifically of interest to, one of ED.gov's four primary user groups. ED Senior Management specifically targeted these four groups as they represent the most frequent visitors to ED.gov.

- Administrators, including decision-makers at education institutions and in local or state agencies
- Parents, including caregivers and extended family members
- Students, pre-K through adult education
- Teachers, instructors at all levels

3) Highly sought after content is also categorized by topic and featured in the following "information centers."

- Financial aid
- Grants and contracts
- Policy
- Programs
- Research and statistics

In addition to the three primary zones of the website, content is also provided in these categories within the global zone.

- Press Room, which contains press releases, photos, audio and video clips
- About ED, including publications, the agency budget, organizational structure, and job openings
- Help, the entry point to such tools as search, the site index and site map, along with technical support
- Espanol, which features the Department's resources for Spanish readers

Links to the same content may appear in one or more zones of the website to ensure that customers who follow different paths can still reach their goal content. For details on the information architecture and an outline of the categories and subcategories within each zone, see the *Content Map*.

Administrative Roles and Responsibilities

While publishing on ED.gov is decentralized, management is centralized. Senior management ensures that the website strategy aligns with the Department's organizational and strategic objectives. This strategy guides the daily operation of the website. Content contributors in principal offices (POCs), which are the primary organizational divisions within ED, receive guidance on the strategic objectives from ED.gov management, policies and procedures, and an agency-wide working group, the Internet Working Group (IWG). What follows is a detailed outline of the administrative roles and responsibilities.

ED Senior Management

ED senior management, in particular the Assistant Secretary for Communications and Outreach and the Chief Information Officer, establishes the strategic direction and priorities for ED.gov. The CIO has operational and technical responsibility for the technology platform, support contractors, and direct program management. Communications and Outreach is the conduit for guidance from senior managers and provides editorial leadership to the Senior Editor and Development Services Team (DST). Editorial duties include:

- Validate web strategy against strategic plan and review updated web policies
- Relay communications and priorities from other ED senior management teams, White House, etc.
- Identify fast-track initiatives for immediate action and notify Senior Editor
- Resolve conflicting priorities raised by Senior Editor and DST
- Review key web metrics to monitor user satisfaction and web performance against strategy

OCIO Development Services Team

DST, which is a division of the Office of the Chief Information Officer, shares management of ED.gov with the Office of Communications and Outreach (OCO). DST has primary responsibility for the tasks listed below.

- Manage resources for ED.gov (staff and budget)
- Administer Internet Application Support (IAS) and other supporting contracts
- Prioritize, assign and track tasks for DST Editors and contract staff
- Coordinate with CIO operations staff on maintenance and upgrades to the website infrastructure
- Coordinate with CIO operations staff to meet security and disaster recovery requirements
- Maintain and update the ED.gov information architecture
- Maintain and update metadata vocabularies
- Maintain and update site-wide services, such as search, the A-Z Index, Quick Clicks, Related Topics, and ED Internet Customer Survey
- Draft policy to guide website activities based on changes to legislation, regulations, or policy guidance and technical innovations
- Provide guidance and training to content contributors
- Meet reporting requirements from ED senior management, the Office of the Inspector General, the Office of Management and Budget, and other agencies

- Analyze customer data and web statistics to provide status reports that will inform improvements to ED.gov
- Co-chair the Internet Working Group with the OCO Senior Editor
- Represent the Department in interagency web efforts, along with other appropriate agency staff

In addition to the tasks above, DST Editors have the following specific duties.

DST Editors

- Review all web content submitted by principal offices and work completed by contract staff to ensure that it meets agency and federal standards
- Coordinate principal office requests for work by Internet support contractors
- Suggest content to feature and make changes as directed by the Senior Editor to the home page headlines, Editor's Picks, and promos in the NCLB, audience and topic zones
- Prepare content for posting on ED.gov (markup, graphics, validation, metadata, and format conversion) for principal offices on an as-needed basis

Office of Communications and Outreach

As mentioned above, OCO shares management of ED.gov with DST. While DST has the technical lead, OCO has primary responsibility for the tasks listed below.

- Create press releases, speeches, audio clips, senior staff biographies and other official Department communications
- Review web content created by principal offices that has policy implications and has not already been cleared through the approval process for print publications (see the *OPA Guide to ED Publishing*)

In addition to the tasks above, the OCO Senior Editor and Audience/Topic Editors have specific duties.

Senior Editor

- Provide editorial oversight on the home page and the categories/subcategories of the information architecture
- Direct DST to feature content in the home page headlines, Editor's Picks, and promos in the NCLB, audience and topic zones
- Gather input from the Audience/Topic Editors to inform changes to the information architecture and updates to featured content
- Co-chair the Internet Working Group with DST

Audience/Topic Editors

- Monitor featured content and request updates from the OCO Senior Editor
- Identify content gaps and request changes to the information architecture from the OCO Senior Editor

Principal Offices

Principal offices provide information directly to ED customers. As the primary content contributors, they have the following tasks.

- Create and maintain content that supports the Department's mission and assists citizens in conducting business with the Department
- Implement an internal clearance process that ensures all content has senior management approval and contains no typos or other errors
- Participate in the Internet Working Group

In addition to the tasks above, the POC Authors and POC Editors have specific duties.

POC Authors

- Prepare content for posting on ED.gov (markup, validation, metadata, and format conversion)
- Ensure web content has been approved by the principal office and/or OCO prior to posting

POC Editors

- Prepare content for posting on ED.gov (markup, validation, metadata, and format conversion) and review content prepared by POC Authors
- Ensure web content has been approved by the principal office and/or OCO prior to posting
- Periodically review all posted content in the principal office's subject domain, including: monitoring content for currency, accuracy, and policy alignment; checking for broken links or other errors; updating contact lists; and monitoring web usage statistics
- Ensure consistency of content within the office, prevent duplication of effort, and identify opportunities to create content
- Request contractor assistance with web projects

Internet Working Group

The IWG is made up of representatives from each principal office, and it is chaired by the OCO Senior Editor and DST management. Members have some technical background and can speak with authority for their principal office. Members have the following responsibilities.

- Share innovations, successes, problems and solutions with other members of working group
- Identify and publicize best practices within their offices
- Participate in issue subgroups as necessary
- Communicate ED.gov activities and priorities to principal offices
- Draft policy to guide website activities based on changes to legislation, regulations, or policy guidance and technical innovations
- Coordinate efforts with other official ED websites (Federal Student Aid, NCES)

Funding Model and Contract Support

Budget

OCIO provides primary funding for the overall operations of ED.gov. The OCIO Internet budget supports hardware/software maintenance; version upgrades and technology refresh; and the IAS Contract. ED.gov is also dependent on the OCIO network operations budget to provide Internet connectivity, networking infrastructure, network security, server administration, operating system, database management systems, and off-site disaster recovery facilities.

Rising costs have gradually overtaken OCIO's Internet budget; therefore, more costs and tasks have been shifted to the principal offices. Principal offices provide resources for content preparation through staff and task orders on the IAS Contract.

Internet Application Support Contract

DST administers the IAS Contract as the primary support vehicle for ED.gov. The purpose of the IAS Contract is to provide administrative and technological support for a robust Internet server environment and related software applications and services for the Department and its component offices and programs. IAS Contract services include:

- Project management, including short and long-term planning and coordination
- Content management, including administration of the content management system and content preparation
- Application life cycle development and maintenance
- Server software administration
- Site monitoring
- System evaluation and planning
- Customer service to principal offices and external customers, including responding to webmaster email
- System security
- Acquisition of hardware/software
- Task orders

Content contributors are most likely to take advantage of the services of the IAS contractor in content preparation. While POC Authors and Editors prepare most of ED's content for posting, the IAS contractor can provide design, creation and maintenance of web documents/applications through task orders. Task order funding can also support application development, website design and development, and document conversion.

Creating an IAS task order involves four steps:

1. The principal office submits a task order request to the Contracts and Procurement Office (CPO) and OCIO.
2. The CPO issues a request for quote (RFQ) to the IAS contractor.
3. The CPO, OCIO and principal receive and evaluate the IAS contractor's quote.
4. The CPO awards the task order.

For more information on the process, specifically how to submit a task order request, principal offices should consult *Creating and Monitoring a Task Order Under the IAS Contract*.

The IAS contractor provides principal offices with monthly task order reports on work and funding status. Principal offices are responsible for reviewing and approving the contractor's work and for monitoring the level of funding on their task orders. Questions about the task order reports should be directed to the Contracting Officer's Representative in DST.

Coordination with External Contractors

Principal offices are encouraged to employ the IAS contractor for all of their content preparation and application development needs. Any other contractor is considered "external," even if the contractor has on-site staff. The involvement of an external contractor in development for ED.gov adds a layer of complexity and can add time and cost if communication does not begin early and continue throughout the project. Success depends on communication among the external contractor, the sponsoring principal office, OCIO, and the IAS contractor. (See "Centralized Management of Web Servers" and "ED-Sponsored Content" for additional information that applies to projects hosted on external servers.)

All but the simplest projects require a kick-off meeting to:

- Ensure a common understanding of the project, the work required of all parties, and the roles and responsibilities of all parties during development and after the project goes live;
- Provide the external contractor with information about ED standards and the target host environment;
- Establish a project schedule, including a target completion date and a test/acceptance process;
- Identify points of contact and problem escalation procedures

The POC Editor must provide the external contractor with access to the *ED.gov Management and Publishing Policies* and the additional guidance on the ED.gov technical environment found in *Information for Contractors Developing Content or Applications for www.ed.gov*. The POC Editor must notify the DST Editor as early as possible about the work to be contracted out and provide a target date for posting the web pages or application to the ED.gov site. To determine the target posting date, the POC Editor should allow time for principal office review and approval, for DST review and approval, for integration testing by the IAS contractor, and for revisions at each step.

Once the files developed by the external contractor have been approved by the principal office and by DST, the DST Editor will coordinate integration testing with the IAS contractor. Files must be transmitted to the IAS contractor no less than 3 weeks in advance of the target posting date.

The IAS contractor is responsible for conducting integration testing based on urgency of request, relevance to ED customers, and the effort required to implement. Testing is required for all web pages/applications developed by an external contractor (as it is for all web pages/applications developed in-house) so that OCIO, principal office and

contractor personnel, including the external contractor, can review the work in the ED.gov technical environment. When migrating web pages and applications from the external contractor's test environment to the ED test environment, the IAS contractor typically must invest significant time in reviewing and adjusting the code and markup to work effectively and efficiently on the ED.gov site. Some development practices make that job harder. Historically, several types of external contractor web site development have proven to take a significant amount of time to adapt to the ED.gov environment:

- Pages that rely on Java or embedded scripts, either JavaScript, or cgi/PERL (PERL scripts must be written to work in ED's environment; client-side scripts shouldn't shut out customers with low-end technology; scripts that write files must recognize that ED.gov runs on multiple servers that are load-balanced)
- Pages that utilize frames mode
- Pages that have been designed using HTML 4.0 features and/or complex or animated graphics (Features such as CSS or mouse rollovers shouldn't shut out customers with older browsers; rather they must degrade gracefully to something understandable and meaningful.)
- Pages written using tools such as FrontPage, InterDev, DreamWeaver, or generated from standard word processing packages or spreadsheets, etc. (which often include non-standard or excessive markup or depend upon server-side support for certain features)
- Pages written, tested, and demonstrated in a Windows NT/IIS environment (which often don't respect the case-sensitivity of URLs in ED's UNIX environment or depend on Windows-specific functions such as Active Server Pages (ASP) or FrontPage server extensions)
- Pages developed in and tested/demonstrated using only one of the major browsers (Some features and assumptions in Internet Explorer and Netscape do not work correctly or at all in the other browser such as missing </table> tags, which are tolerated in IE but in Netscape cause the table not to display at all.)

Approved files that require changes that affect the systems, infrastructure, and/or data and communications integrity of the Department's internal network, EDNet, must undergo additional review by OCIO's Change Control Review Board (CCRB). This approval process may affect the project timeline.

The Department will not be held responsible for correcting and implementing poorly designed web pages that do not comply with the *ED.gov Management and Publishing Policies*. The external contractor retains responsibility for ensuring that the application performs efficiently and correctly under real-world load on the live site. In the event of major problems, files will be rejected by DST in conjunction with the POC Editor and returned to the external contractor for rework.

Contractor Responsibilities

External contractors will develop content, including web pages, graphics, databases, scripts and forms, for posting to ED.gov in accordance with the following procedures:

- Work closely with the Department (POC Editor and DST Editor) and the IAS contractor at all stages of site development, from project inception to completion.
- Inform the POC Editor of project scope, anticipated number and type of files, and estimated completion time.

- Convert file data to HTML, PDF, database, form, graphics, or zipped files, depending on project needs. File source data can consist of Word, WordPerfect, ASCII, Lotus, Excel, Access, and other file formats using word processing and desktop publishing software (see www.ed.gov/internal/styleguide/).
- Develop web content in accordance with the *ED.gov Management and Publishing Policies*, including addressing all issues of accessibility and compatibility with older browsers.
- Create a file/site directory, organize all web page/links into a web site, establish and test all relevant internal and external links.
- For site redesigns, coordinate the replacement of current files with files using the same names. If site redesign files must use new filenames, the developer must at least coordinate the identification of orphan files for deletion as well as identify any links to orphan files that may occur on new or retained files from the former site.
- Following preliminary review, deliver completed files for ED.gov integration testing.
- If files are returned for correction and modification, make any final revisions or corrections prior to posting.

Contract Language

The following language must be included in all contracts that produce deliverables to be posted on ED.gov.

“The contractor shall provide all deliverables intended for posting on the ED web site in accordance with the following:

- an electronic file in Adobe Acrobat Portable Document Format (PDF) containing a copy of the deliverable with the same layout and pagination as the printed version (current specifications for PDF files are defined in the *ED.gov Style Guide* at www.ed.gov/internal/styleguide/index.html);

Note: Large documents for which the PDF file exceeds five megabytes in size shall also be provided in multiple PDF files that subdivide the document into logical units each smaller than one megabyte.

- an electronic copy of the deliverable (two copies if on disk or CD-ROM), including all files complete with any embedded links and objects (e.g., an Excel spreadsheet table embedded in a Word document), in formats defined on the ED web site's list of acceptable electronic formats (a current list is maintained at www.ed.gov/internal/styleguide/index.html) in editable form suitable for (a) conversion to HTML and web graphic formats or (b) posting as-is (e.g., accessible Word or PDF documents);
- final versions of all electronic files that contain the exact same content as the final printed deliverable, including any galley proof changes;
- a printed or electronic plain text document accompanying the electronic files that includes the following information: title and description of the product; file name and format for each file, including embedded charts, tables, and images; if multiple files, explanation of component pieces and how they fit together to form

the complete product; contact information, including name, email address, and telephone number.

Deliverables that are created specifically for the web and do not have published counterparts in print form shall follow the same guidelines. Hardcopy shall be submitted along with the electronic files through appropriate Department clearance and sign-off requirements, which will be the same as or equivalent to those for publications.

Deliverables shall meet the requirements for posting on ED.gov stated in the *ED.gov Management and Publishing Policies*.”

Technical Architecture and Operations

Centralized Management of Web Servers

Internet services are developed and maintained centrally by OCIO to meet the needs of principal offices. The purpose of centralized management of web servers is to provide optimal customer service and cost control by ensuring adherence to Department quality control standards, increased security, and uniformity of presentation.

Principal offices may not, in general, purchase servers for agency content or convert existing servers for that purpose, or provide funding to grantees or contractors to host websites on external servers on their behalf. However, principal offices may provide funding for content on external web servers if:

- The website is one deliverable of many to be provided under a contract for technical assistance or training, and cannot easily be separated from the other deliverables;
- The website is funded by a grant, and the grantee, rather than the Department, is primarily responsible for the information on the site (see “ED-Sponsored Content”); or
- The website is part of a public and private sector partnership or interagency partnership.

The IWG Co-Chairs may agree to allow principal offices to fund external web servers in other circumstances, on a case-by-case basis.

Websites hosted on external servers are considered to be official Department websites if

- the Department funds the website; and
- the website is operated on behalf of the Department or its offices, or speaks for the Department.

Principal offices are responsible for ongoing review and maintenance of content on external web servers, including official Department websites on such servers. Principal offices must ensure that content undergoes an internal clearance process and complies with all applicable laws, regulations, and federal and ED.gov standards.

Domain Names

OMB Memorandum M-05-04, Policies for Federal Agency Public Websites, requires that Federal public websites use .gov domains, and not .com or .org domains. As a result, all websites hosted on Department-owned servers will have ed.gov domain names.

Official Department websites on external servers are considered to be Federal public websites, and must also have .gov domain names. The principal office funding the external site is responsible for coordinating with DST and the external contractor or grantee to obtain and set up the .gov domain names.

In almost all cases, official Department websites on external servers, like those on internal servers, will be assigned an ed.gov domain name. Exceptions may be allowed in very limited circumstances, with the approval of the IWG Co-Chairs.

Contract Language

The following language must be included in all contracts that include a website on an external server as one of the deliverables:

The contractor shall, in consultation with ED, develop and maintain a Web site to use throughout the life of the project. The Web site shall be hosted by the vendor, and will be compatible with ED's Web site, www.ed.gov, and follow applicable sections of the ED.gov Management and Publishing Policies (<http://www.ed.gov/internal/wwwstds.html>) and the ED.gov Style Guide (<http://www.ed.gov/internal/styleguide/index.html>). The Web site shall feature any appropriate deliverables associated with the project. Therefore deliverables, where indicated, should be submitted in such a way so that they can be hosted on the vendor's or ED's Web site. Web applications will use software compatible with ED's Web site (i.e., Macromedia ColdFusion, Microsoft SQL Server, IBM WebSphere) to facilitate migration to www.ed.gov for hosting at the end of the contract; ED may waive the compatibility requirement on request on a case-by-case basis.

Technical Architecture

ED.gov consists of the main web server, machines supporting the main web service (e.g. server boxes, load balancing front-end), and various applications and services (e.g. site search, database applications, streaming media, listservs, web content management, etc.). The following functional and technical characteristics are currently in place:

- Load-balanced web server machines running IBM HTTP Server (IHS) on Solaris
- Server-side scripting using PERL, Java (IBM WebSphere), and Python (for Ultraseek)
- Web content management using TeamSite (including Templating, OpenDeploy, and DataDeploy)
- Site search functionality using Verity Ultraseek (formerly Inktomi)
- Web-based database application development using SQL Server on Windows 2000, ColdFusion, and IBM WebSphere on Solaris
- Management of web application source code and configuration files (e.g., JSPs, Java files, HTML files, and SQL files), web server configuration files, and TeamSite source code (e.g., workflow templates, data capture templates, PERL scripts, CGIs, and configuration files) using Concurrent Versions System (CVS)
- Listservs using ListProc with web archiving for public lists using MhonArc
- Streaming audio and video using RealServer
- Web log analysis reports using WebTrends Enterprise Edition
- Web content validation using LinkScan
- HTML syntax validation using Dr. HTML
- RedAlert site monitoring service

Standards Used:

- System architecture is based on open standards endorsed in the Federal Enterprise Architecture Program Management Office's Component-Based Architecture recommendations, e.g., HTML, XML, J2EE, SMTP, MIME, SSL, Section 508, etc.
- Dublin Core Metadata Initiative (DCMI)
- Extensible Markup Language (XML)
- Z39.19 Guidelines for Monolingual Thesauri
- Java
- Structured Query Language (SQL)

Content Management

Creating/Posting Content

To ensure accuracy and consistency with the Department's mission and web strategy, content undergoes multiple reviews before posting on ED.gov. Three reviews are built into the workflow of ED's content management system, while others may be performed as necessary outside of the workflow.

POC Approval

Most content originates in ED principal offices. Each office is required to implement an internal clearance process that ensures all content has been approved by senior management. Clearance processes may vary by office, but at minimum they must adhere to the following guidance.

A POC web clearance process must be overseen by a senior manager who assumes day-to-day responsibility for ensuring that content is reviewed and proofread appropriately and in a timely manner. The process should include a roster of good proofreaders – no fewer than two individuals in each office – who, as a team, are available and on-call throughout the day to provide 24-hour turnaround. OPA maintains a list of designated proofreaders. In addition, OCO's Editorial Policy, Publications, and Printing team provides an expedited proofreading service with 24-hour turnaround. If OCO cannot turn around a review in 24 hours, content will be sent to an outside proofer. While Assistant Secretaries may authorize a senior manager to oversee the clearance process, ultimately each Assistant Secretary is responsible for any content generated within his/her office.

An exception to the above web clearance process is made for content previously cleared for print publication. If the web version is substantially the same as the print publication, it does not require additional clearance.

POC Authors ensure that content has been approved before preparing it for posting. Principal offices may have multiple POC Authors. Some small offices do not have any authors, but rely on the POC Editor to prepare all content. POC Authors submit files to a POC Editor for further review using the Department's content management system, Interwoven TeamSite. The *POC Author Checklist* outlines the steps that an author must follow.

Every principal office has one POC Editor who may also serve as the office's Internet Working Group member. In busy offices, the POC Editor may be a full-time job. The POC Editor reviews files submitted by POC Authors and/or prepares content for posting. The POC Editor has the option to reject files to the POC Author for correction. Once their reviews are complete, POC Editors submit files to DST Editors for further review in TeamSite. The *POC Editor Checklist* outlines the steps that an editor must follow in reviewing content.

DST Approval

All content undergoes technical review by the DST Editors. Technical review includes ensuring files have been validated; meet browser compatibility and screen resolution

requirements; and comply with agency and federal standards/laws, including the *ED.gov Style Guide* and *Section 508 of the Rehabilitation Act of 1973*.

Each DST Editor is assigned to one or more principal offices and builds an expertise in the subject areas of those principal offices. DST Editors review files submitted or approved by POC Editors and/or prepare content for posting. DST Editors have the option to reject files to a POC Editor or Author for correction. Once their reviews are complete, DST Editors submit files to Audience/Topic Editors for further review in TeamSite. The *DST Editor Checklist* outlines the steps that an editor must follow in reviewing content.

Audience/Topic Editor Approval

Audience/Topic Editors have the opportunity to review content to ensure its correct placement within the information architecture and to identify items that should be featured. They take responsibility for particular areas of the information architecture in which they have a subject expertise.

Audience/Topic Editors review files in their subject area that were submitted or approved by DST Editors. Audience/Topic Editors have the option to reject files to DST Editors for correction. Once Audience/Topic Editor reviews are complete or, in the absence of such review within one hour, content is posted to the production website.

Additional Approvals

OCO Approval

In addition to the POC web clearance process, content that has policy implications, is high-profile or is sensitive, must undergo review by OCO. Examples of such content include: lists of books and authors; the program guide; information about new legislation, a program or initiative; or a new website. Contact the Senior Editor to request OCO clearance.

It is the responsibility of the principal office to determine whether OCO review is necessary. If there is any doubt, the POC Editor should consult with DST or the Senior Editor. If OCO approval is necessary, it must take place before the POC Editor submits the web content for further review by DST.

Information Collection Clearance

A request for identical information from 10 or more members of the public requires additional approval. The Paperwork Reduction Act of 1995 requires that these information collections be approved by the Office of Management and Budget. Information collections can include customer satisfaction surveys, applications, and online forms. However, requests for general comments that do not ask for responses to standard questions do not require clearance.

It is the responsibility of the principal office to determine whether information collection clearance is necessary. Content contributors should consult with their office's Information Collection Coordinator and the *Guide to the Information Collection Clearance Process*. If clearance is necessary, it must take place before the POC Editor submits the web content for further review by DST.

Privacy Policy

OMB Memorandum 03-22, *OMB Guidance for Implementing the Privacy Provisions of the E-Government Act*, governs the collection and use of personal information on ED.gov.

1) Whenever personally identifiable information is collected and the information is maintained in a system of records, additional approval is required. *The Privacy Act* controls how federal agencies collect, maintain and use information about individuals.

It is the responsibility of the principal office to determine whether publishing a Privacy Act system notice is necessary. Content contributors should consult with the Privacy Act Officer in OCIO for additional information. If publishing a system notice is necessary, it must take place before the POC Editor submits the web content for further review by DST.

2) OMB specifies that federal agencies should provide privacy policy notices at major entry points, as well as at any web page where the agencies collect substantial personal information from the public. While all pages in the ED.gov template include a link to descriptions of why ED collects and how it uses certain categories of information, these notices do not cover all uses. And web applications or pages created outside the template – for example, over-wide pages with the ED lite banner, or applications – do not automatically include the standard link to a privacy notice.

It is the responsibility of the principal office to determine whether a specific privacy notice is necessary on a templated page and whether to add a link to a privacy notice on non-templated ED.gov content. Content contributors should review the ED Privacy Notices.

3) OMB tightens the restrictions on the use of persistent cookies on federal web sites. OMB states that persistent cookies should not be used unless the following conditions are met:

- A compelling need to gather the data on the site
- Appropriate and publicly disclosed privacy safeguards for handling of information derived from cookies
- Personal approval by the head of the agency

To comply with OMB guidance, the Secretary has delegated authority to the CIO to approve persistent cookie use on ED.gov. Content contributors should inform DST of their intent to use persistent cookies. To test files created by an external contractor, consult *Procedures to Test for Cookies* in Appendix C: Technical Standards and Guidelines. The CIO will examine the instances of persistent cookie use and permit such use only when there is a low risk of raising privacy issues and strong functional (customer-focused) justification.

Accessibility Testing

All ED.gov content must comply with the requirements of *Section 508 of the Rehabilitation Act of 1973*. Section 508 requires federal agencies to make their electronic and information technology accessible to people with disabilities. Pages that are created in the ED.gov template and abide by the *ED.gov Style Guide* do not usually require additional testing to ensure that they are accessible. However, new web

applications, forms, PowerPoint presentations and PDF files should be scrutinized carefully.

It is the responsibility of the principal office to determine whether accessibility testing is necessary. Principal offices that lack the necessary skills/software to determine whether accessibility testing is necessary should consult with DST. Content contributors may contact the OCIO Assistive Technology Team directly to schedule accessibility testing. If testing is necessary, it must take place before the POC Editor submits the web content for further review by DST.

Approval for EDNet Changes

Changes that affect the systems, infrastructure, and/or data and communications integrity of the Department's internal network, EDNet, require additional approval. OCIO's Change Control Review Board (CCRB) oversees system change requests, technical reviews and implementations. While this rigorous review is not necessary for most postings to ED.gov, new web applications, such as databases or surveys, must receive CCRB approval prior to posting. The CCRB approval process must be incorporated into the project timeline. It is the responsibility of the principal office to inform and involve DST during the planning stages for a new application.

Featuring Content

Any content contributor may request that the Senior Editor feature new/updated content on the ED.gov site. In practical terms, POC Authors and POC Editors will most often funnel their requests through DST or the appropriate Audience/Topic Editor. Methods to feature content include:

- Home page headlines
- Editor's Picks
- Promos in the NCLB, audience and topic zones

Linking to External Content

Linking to external organizations raises two key issues: (1) avoiding the appearance of endorsement or favoritism; and (2) using limited resources efficiently and effectively.

To avoid the appearance of endorsement or favoritism, content contributors must:

- link to approved ED disclaimers and statements. The text of the standard Disclaimer of Endorsement statement shall be included on pages whose major purpose is linking to external sites. When external links appear on a page but are not its major focus, the standard Disclaimer icon shall appear next to each external link or group of links; the icon shall link to the Disclaimer of Endorsement.

A scope and criteria statement for the Department's main collection of links to external sites (www.ed.gov/about/contacts/gen/othersites/index.html) is available at www.ed.gov/about/contacts/gen/othersites/edrespol.html.

- establish a linking statement for additional collections. If the Department's main page of links to external sites is not used, collections of links to external sites shall be accompanied by a statement of the scope of the collection and the

criteria for inclusion in it. The sponsor of a collection of external links must be prepared to respond to requests from external sites who petition to be added. Unless the stated scope and criteria are well-defined and limited, the sponsor has no grounds for refusing such requests and may be forced to either add an unforeseeable number of links to other sites or discontinue the entire collection.

To ensure efficient and effective use of ED's limited resources for web development and maintenance:

- the collections at www.ed.gov/about/contacts/gen/othersites/index.html should be provided as gateways for our customers to non-ED sources of information. The Department's "Other Sites" page includes authoritative and up-to-date links to ED-funded sites, education- and library-related resources at other federal agencies, state education agencies, and national education associations. Another centralized resource is the Department's Education Resource Organizations Directory (EROD) at www.ed.gov/erod/, which contains information on more than 3,000 organizations that provide education information or assistance services on a national, regional, or state level. As such, content contributors shall rely upon the Department's centrally maintained collections of links wherever possible, rather than compiling similar lists of links which may be duplicative, incomplete, and less accurate.
- the IWG reserves the right to review proposed external link collections before they are implemented. The ongoing maintenance effort for external link collections is often severely underestimated. As a result, the maintenance of external links can consume a disproportionate amount of staff and contractor effort. If the IWG decides that the proposed collection should not be supported by the IAS Contract, the sponsoring organization may choose to pay for the effort through a task order.

ED-Sponsored Content

Information on servers operated under Department funding must be related to the purpose of the award under which the project is funded. The Department of Education should be identified prominently and a link provided to the sponsoring principal office. In the case of organization/grantee websites where ED-sponsored content resides with other information, ED-sponsored content must be clearly identified and distinguished from other information.

The individual or office responsible for the project is responsible for the coordination of all ED-sponsored pages. However, the sponsoring principal office should decide how closely the site needs to be monitored to ensure that the content and technical integrity of ED-sponsored pages are consistent with Department standards. The level of monitoring by the office is determined by the following factors:

- how much material the site contains
- the frequency and volume of updates
- time-sensitive nature of updates
- the contractor/grantee track record for responsibly managing the site
- and the potential risks/burdens for ED

Archiving/Removing Content

One of the challenges confronting the Department is using the website to provide information about initiatives that have been reauthorized by Congress while also maintaining historical information about previous programs and initiatives. Creating a linked, searchable archive of outdated information is the approach the Department has chosen to take.

Principal offices are responsible for determining if the information within their subject areas is current, needs to be updated, should be archived, or should be deleted.

Outdated files should not be deleted unless they are:

- Navigation pages (pages that simply link to other pages but do not provide content on their own)
- Decorative or navigation graphics that are no longer used
- Draft documents superseded by final versions

Archiving a file means:

- 1) Removing links to the file from the current files on ED.gov and presenting links to it only from other archived pages or a page clearly identified as a library of archived pages.
- 2) Changing the status of the file in its metadata to “archived.” This ensures the file will only appear during searches on ED.gov when the user specifically requests archived files.
- 3) Marking the file with the archived background stamp. If a file is templated, the archived background stamp will be automatically applied when the metadata status is changed to “archived.” For non-templated and non-HTML files, other methods for marking the file are outlined in the *ED.gov Style Guide*.
- 4) Adding “Archived” to the page title.

Performance Metrics

Measures

DST assesses the success of the website using a combination of objective and subjective measures. In general, the quality indicators are:

- Reliability: The site will be available over 99% of the time
- Site usage: The site will log an average of at least 2 million hits, 450,000 page views, and 75,000 visits per day year-round
- Customer satisfaction: Overall customer satisfaction with the website will average at least 3.65 on a scale of 1 to 5 (where 5 is most satisfied)

Methods

The methods for gathering data to judge success include web logs, error analysis, online customer surveys, customer support telephone lines, network monitoring service logs, and usability testing.

DST receives statistics on the website from a number of support services. Red Alert, a service that monitors a number of URLs every 15 minutes 24X7, provides data on reliability. LinkScan, a website validation tool, provides data on errors such as broken links, orphan files, and code problems. Web Trends combs through web logs and provides the number of times each file was accessed, when, from which Internet address and using which web browser.

Data on customer satisfaction is provided on an ongoing basis by the online ED Internet Customer Survey. Multiple choice questions allow users to rank the website on a number of factors. The survey provides insight into important customer characteristics that cannot be gleaned from statistical tools.

- What kinds of people and organizations use ED.gov
- How often they visit
- How satisfied are they with the information provided – its usefulness, timeliness, accuracy, comprehensiveness and presentation
- How satisfied are they with the way the information is organized and with the menus, links, and search tools
- What kinds of information they consider most valuable
- How they prefer to use various types of information and what formats are most useful
- What their technical capacity is
- What new services would be most valuable in the future

Customer input is also gathered periodically through usability testing. The tests are designed to measure how effectively the site design aids targeted users' in completing routine tasks. Observers watch users attempt to complete predefined tasks and provide analysis. Usability testing is effective in providing answers to a number of questions.

- What are users' initial reactions to the site design?

- Are they able to differentiate between and efficiently use the different navigation techniques?
- Do the labels throughout the site make sense to the user?
- Are users finding the information they want efficiently?

Feedback and observations gathered during usability testing are prioritized and incorporated into redesigns.

Reporting

To ensure that OCIO and ED Senior Management are kept up to date, DST compiles a number of regular reports.

- **Weekly Reports:** These reports provide brief status/funding updates on major Internet projects, such as redesign, and bring issues to the notice of OCIO management.
- **Monthly Internet Status Reports:** Provided to OCIO management and to principal offices through the IWG, the monthly reports recount news coverage and awards, provide usage statistics and trend analysis, and announce new offerings. Results are also reported to all ED employees through the intranet.
- **Annual Customer Survey Analysis:** An online customer satisfaction survey gathers input from ED.gov users. Results of this survey, which guide development and enhancement of services, are reported annually to OCIO management and principal offices through the IWG. Results are also reported to all ED employees through the intranet.
- **Contract Administration Reports:** Project work plans and cost estimates. Monthly or bi-weekly reports on work and funding status. Reports provided to principal office task order managers.

Appendices

Appendix A: Definitions

Content	Data or documents, basically the raw material for a web page. Content may take many forms, including a print publication, speech or press release.
Content Contributor	ED staff responsible for preparing content for use on the Internet, including creation of new material and the conversion of existing textual, tabular, and graphical material into preferred or required file formats; ED or contractor staff needing guidance on the specific standards which apply to the ED site when preparing or converting content.
Content Management System (CMS)	A system used to manage the content of a web site. The features of a CMS system vary, but most include Web-based publishing, format management, revision control, and indexing, search, and retrieval. (derived from searchWebServices.com)
Contracting Officer	A person duly appointed with the authority to enter into and administer contracts on behalf of the government.
Contracting Officer's Representative (COR)	An individual designated in writing by the Contracting Officer to act as his/her authorized representative and perform specific contract administrative functions within the scope and limitations as defined by the Contracting Officer.
Contractor	The contractor, its subsidiaries and affiliates, joint ventures involving the contractor, or any entity with which the contractor may have merged or any individual or entity that assisted or advised the contractor in the preparation of a proposal under this solicitation.
Cookie	Small piece of software that is placed on a web user's hard drive to collect information or keep track of a user's session.
EDNet	ED's electronic network, which connects ED staff, who are located in several buildings occupied by ED staff in Washington, D.C. and ten regional offices distributed across the country, to each other and to ED's computing and telecommunications infrastructure.
HTML	Hypertext Markup Language. A hypertext document format used on the World Wide Web. Built on top of SGML (Standard Generalized Markup Language. "Tags" are embedded in the text. A tag consists of a "<", a "directive" (case insensitive), zero or more parameters and a ">". Matched pairs of directives, like "<TITLE>" and "</TITLE>" are used to delimit text which is to appear in a special place or style.
Information collection	The obtaining, causing to be obtained, soliciting, or requiring the disclosure to an agency, third parties or the public, of information by or for an agency by means of identical questions posed to, or identical reporting, recordkeeping, or disclosure requirements imposed on, ten or more persons, whether such collection of information is mandatory, voluntary, or required to obtain or retain a benefit.
Java	A simple, object-oriented, distributed, interpreted, robust, secure, architecture-neutral, portable, multithreaded, dynamic, buzzword-compliant, general-purpose programming language developed by Sun Microsystems in the early/mid 1990s. Java supports programming for the Internet in the form of platform-independent Java "applets."
Listserv	An automatic mailing list server. The original listserv software was initially

written to run under IBM's VM operating system by Eric Thomas. Listserv is now used generically to refer to the entire category of "mail reflectors" used as topical or special interest discussion forums and to disseminate information.

Metadata Data about data. Data definitions describing aspects of actual data items, such as name, format etc. Also used to describe the HTML-specific implementation through which descriptive information about a document can be hidden in the HTML <head> for use by indexing, retrieval, and other software.

System of records A group of any records under the control of any agency from which information is retrieved by the name of the individual or by some identifying number, symbol, or other identifying particular assigned to the individual.

Template A form available to users in the content management system that standardizes both the capture of data from the user and the presentation of that data on the website.

Appendix B: Contacts

- *ED.gov Management and Publishing Policies*: Jerry Alexandratos, (202) 245-6822
- Internet Application Support Contract: Contracting Officer's Representative Angela Roberts, (202) 245-6558
- ED.gov System Security Officer: Angela Roberts, (202) 245-6558
- Senior Editor: Kirk Winters, (202) 401-3540

OCIO/DST Editors (November 2006)

Office	Primary Contact		Backup Contact	
	Name	Phone	Name	Phone
FSA	Sharon Robinson	(202) 245-6560	Production Team: Shelia Hamblin Sharon Robinson	(202) 245-6475 (202) 245-6560
IES	Shelia Hamblin	(202) 245-6475		
OCFO	Jennifer Reeves	(202) 245-6554		
OCIO	Sharon Robinson	(202) 245-6560		
OCR	Alan Smigielski	(202) 245-7612		
OS/ODS/ OUS/OCO	Jennifer Reeves	(202) 245-6554		
OELA	Shelia Hamblin	(202) 245-6475		
OESE	Alan Smigielski	(202) 245-7612		
OGC	Sharon Robinson	(202) 245-6560		
OIG	Alan Smigielski	(202) 245-7612		
OII	Sharon Robinson	(202) 245-6560		
OLCA	Sharon Robinson	(202) 245-6560		
OM	Jennifer Reeves	(202) 245-6554		
OPE	Shelia Hamblin	(202) 245-6475		
OPEPD	Jennifer Reeves	(202) 245-6554		
OSDFS	Sharon Robinson	(202) 245-6560		
OSERS	Shelia Hamblin	(202) 245-6475		
OVAE	Alan Smigielski	(202) 245-7612		

**OCIO/DSG Points-of-Contact for Recurring Information and Special Tasks
(November 2006)**

Info/Task	Primary Contact		Backup Contact	
	Name	Phone	Name	Phone
Production Team	Shelia Hamblin	(202) 245-6475	Sharon Robinson	(202) 245-6560
NCLB	Jennifer Reeves	(202) 245-6554		
WHI (YesICan.gov)	Jennifer Reeves	(202) 245-6554		
FSA Advisory Committee	Sharon Robinson	(202) 245-6560		
Discussion ListServs	Justin Jefferson	(202) 245-6506		
Database Applications	Justin Jefferson	(202) 245-6506		
Streaming Media	Sabrina Lowry	(202) 245-6525		
A-Z Index	Shelia Hamblin	(202) 245-6475		
Federal Register	Justin Jefferson	(202) 245-6506	Kim Nguyen	(202) 245-6405

POC Editors/Authors (November 2006)

Office	Editor		Authors	
	Name	Phone	Name	Phone
FSA	Brian Shelling	(202) 377-4292	Eric Vanburen	(404) 562-6084
IES				
OCFO	Anna Dettbarn	(202) 401-0891	George Wagner Gary Weaver	(202) 245-6163 (202) 245-6138
OCIO	Sharon Robinson	(202) 245-6560	Teresa Mills	(202) 401-3586
OCO	Peter Kickbush	(202) 401-8589		
OCR	Rayford Young	(202) 245-6792	Tom Ciapusci	(202) 245-6758
OS/ODS/ OUS	Peter Kickbush	(202) 401-8589	Marty Jacobs	(202) 401-0098
OELA	Hope Moreland	(202) 245-7114		
OESE	Susan Winingar	(202) 260-0942	John Cheek Bonnie Cote Nelly Gruhlke Cathy Baker Sheila Proctor Kisha Spruill	(202) 401-0274 (202) 260-1426 (202) 260-2409 (202) 260-0943 (202) 260-0919 (202) 260-2292
OGC	Terry Bashford	(202) 401-5946		
OIG	Thuy Tran	(202) 245-6976		
OII	Cynthia Cabell	(202) 205-4351		
OIIA	Peter Kickbush	(202) 401-8589		
OLCA	Lisa Dove	(202) 401-0021		
OM	Kara Jagessar	(202) 401-6229		
OPE	Phil Schulz	(202) 502-7682	Valorie Jones Cathy Sheffield	(202) 502-7660 (202) 219-7011
OPEPD	Peter Kickbush	(202) 401-8589		
OSERS	Geoffrey Rhodes	(202) 245-7609	Olivier Fisher	(202) 245-7344
OSDFS	Gizelle Young	(202) 260-7808		
OVAE	Lina Thompson	(202) 245-6585	Rose Tilghman	(202) 245-7759

Internet Working Group (November 2006)

Office	Name	Phone
FSA	Brian Schelling	(202) 377-4292
IES		
NCES	Jerry Malitz	(202) 502-7386
OCFO	George Wagner	(202) 245-6163
OCIO	Sharon Robinson	(202) 245-6560
OCO	Peter Kickbush	(202) 401-8589
OCR	Rayford Young	(202) 245-6792
OELA	Hope Moreland	(202) 245-7114
OESE	Susan Winingar	(202) 260-0942
OGC	Phil Rosenfelt	(202) 401-6084
OIG	Thuy Tran	(202) 245-6976
OII		
OLCA	Lisa Dove	(202) 401-0021
OM	Ted Andreasian	(202) 401-8365
OPE	Phil Schulz	(202) 502-7682
OSDFS	Gizelle Young	(202) 260-7808
OSERS	Geoffrey Rhodes	(202) 245-7609
OVAE	Lina Thompson	(202) 245-6585
Department-wide	Jerry Alexandratos (OCIO) Kirk Winters (ODS/OUS)	(202) 377-4458 (202) 401-3540

Appendix C: Technical Standards and Guidelines

ED.gov Style Guide

The *ED.gov Style Guide* defines the design principles and cascading style sheet used on ED.gov. It provides libraries of standard images and code, a style sheet reference section, and tips to help content contributors follow ED's styles and conventions. The *ED.gov Style Guide* is maintained online to provide access to internal content contributors and external contractors: <http://www.ed.gov/internal/styleguide/index.html>

Content Management System (TeamSite) Documentation

Training materials on ED's content management system are continuously updated. Topics include how to: navigate the TeamSite directory structure, update existing files, add metadata, post new content in the ED.gov templates and review and approve TeamSite jobs. Training materials can be found on an internal site for content contributors: <http://www.ed.gov/internal/TeamsiteManuals/index.html>.

Accessibility

ED's [Requirements for Accessible Electronic and Information Technology \(E&IT\) Design](#) govern all content intended for posting on ED.gov. In addition, ED provides helpful tips on how to meet the requirements of Section 508: <http://www.ed.gov/internal/accessibility.html>.

Metadata Documentation

An online reference tool provides up-to-date information on the controlled vocabularies used to catalog resources on ED.gov: <http://www.ed.gov/admin/reference/index.jsp>. Documentation on all ED.gov metadata elements is also available online: <http://www.ed.gov/internal/EDWebMetadata/index.html>.

Security

The ED.gov Security Plan provides an overview of the security requirements for ED.gov and describes the controls in place or planned for meeting those requirements. The system security plan also delineates responsibilities and expected behavior of all individuals who access the system. Contact the ED.gov System Security Officer for information about the Security Plan.

Procedures to Test for Cookies

Content contributors must ensure that all new web pages/applications comply with OMB guidance on the use of cookies. The procedures below identify persistent and session cookies in HTML, JavaScript, and CGI/PERL scripts. Cookie detection for Java programs and other applications such as ColdFusion and WebSphere must be performed through other means as part of integration testing.

To detect cookie placers located in cgi or perl scripts search for the string: Set-Cookie
Here's an example of what a cookie setter in a perl script might look like:

```
Content-type: text/html Set-Cookie: foo=bar; path=/  
expires=Mon, 01-Jan-2001 00:00:00 GMT
```


To detect cookie placers located in html meta tags search for the string: Set-Cookie
Example:

```
<META HTTP-EQUIV="Set-Cookie" Content="id=10; expires=18-Jul-2001 12:00:00 GMT; path=/; domain=.authors.com;">
```

To detect cookie placers located in javascript search for the string: document.cookie
Examples:

```
<SCRIPT LANGUAGE="JavaScript">
document.cookie="foo=bar; path=/; expires=Mon, 01-Jan-2001
00:00:00 GMT";
</SCRIPT>
```

```
<SCRIPT LANGUAGE="JavaScript">
function setCookie (name, value, expires, path, domain,
secure) {
document.cookie = name + "=" + escape(value) +
((expires) ? "; expires=" + expires : "") +
((path) ? "; path=" + path : "") +
((domain) ? "; domain=" + domain : "") +
((secure) ? "; secure" : "");
}
</SCRIPT>
```

This function requires that a name and a value are passed, with all other parameters optional. A sample use of this function could be the following:

```
<SCRIPT LANGUAGE="JavaScript">
setCookie("foo", "bar", "Mon, 01-Jan-2001 00:00:00 GMT",
"/");
</SCRIPT>
```

If a cookie placer is found, search the file for the text "expires=". If this date is later than the current date then the cookie is persistent. If there is no "expires=" text then the cookie is a session cookie.

Procedure to Identify, Remove Web Bugs

As part of regular technical review of content created by principal offices or an external contractor, DST Editors ensure that web pages/applications abide by OMB guidance on collecting personally identifiable information from Internet users. They use the following procedures to identify, remove and prevent Web bugs, hidden forms, embedded client scripts, and links to anonymous FTP servers.

Identify

For web bugs, DST Editors use Linkscan to search for all links to external .jpg, .gif, and .png files. For any that are found, DST Editors examine the server on which they reside to determine if they are issuing persistent cookies.

For forms, the IAS contractor runs the script from Elson to list all forms and supplies this list to DST. DST inspects these forms to determine if any of them are hidden and if they collect any personally identifiable info.

For embedded client scripts, DST Editors use Linkscan to search for all external links to javascript files. If any are found, DST inspects them to see if they are collecting personally identifiable information.

For links to FTP servers, DST Editors use Linkscan to search for links to all ftp servers and then check the resulting list to see if any of them are ED anonymous ftp servers.

Remove

For web bugs, DST Editors determine if the image can be copied to www.ed.gov. If it can DST copies the image and changes the appropriate link. If the image cannot be copied the link to the image is removed from the page.

DST removes hidden forms and embedded client scripts from any pages containing them.

DST removes links to ED anonymous FTP servers.

Prevent

To prevent Web bugs, DST Editors inspect all new files searching for all images and see if any reside on a server other than www.ed.gov. If such images are found, the DST Editor must determine if the server on which the image resides is issuing persistent cookies. If it is, the DST Editor rejects the job and asks the POC Editor to either provide a local copy of the image or redo the page to eliminate the image.

To prevent hidden forms, DST Editors search all new files for the <form tag. If found all such forms must be inspected to see if they are hidden and collect personally identifiable information. If such are found, the file will be rejected and the POC Editor will be asked to remove the hidden form.

To prevent embedded client scripts, DST Editors search all new files for the <script tag. If found all such scripts must be searched for any external references (i.e., links to a server other than www.ed.gov). If found, the DSG Editor rejects the job and asks the POC Editor to remove the external references from the script or remove the script.

To prevent links to anonymous FTP servers, DST Editors search all new files for href="ftp://. If any such links are found, then the DST Editor must determine if they are to an ED server. If they are, the DST Editor rejects the job and asks the POC Editor to provide the files using the http protocol.

Appendix D: Other References

- Checklists:
 - [Author](#)
 - [POC Editor](#)
 - [DST Editor](#)
- Content Map [[internal link](#) to Excel spreadsheet (255K)]
- EDNet Change Control Review Board Process [[internal link](#) to Word document (1M)]
- EDNet Technical Review Process [[internal link](#) to PDF document (216K)]
- Guide to the Information Collection Clearance Process [[internal link](#) to Word document (328K)]
- Guide to Publishing at the U.S. Department of Education, Office of Public Affairs, November 2001 Edition, [Word document](#) (151K)
- Information about writing for the web: [Plainlanguage.gov](#)
- Information for Contractors Developing Content or Applications for www.ed.gov [[internal link](#)]
- Memo from Secretary's Chief of Staff John Danielson: ED.gov Redesign, Dec. 18, 2002 [[internal link](#)]
- OMB Memorandum 03-22: [OMB Guidance on Implementing the Privacy Provisions of the E-Government Act of 2002](#), Sept. 26, 2003
- Managing content for the web: [webcontent.gov](#)
- Presentation to the Internet Working Group on ED Web Redesign, April 22, 2003 [[internal link](#) to PowerPoint document (367K)]
- Privacy Act Officer in OCIO [[internal link](#)]
- [Privacy Notices](#)
- [Section 508 of the Rehabilitation Act](#), text of the law and resources from the Access Board