

# NIKE: Integrating Workflow, Digital Library, and Online Catalog Systems

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## Categories and Subject Descriptors

H.3.7 [Information Search and Retrieval]: Digital Libraries – collection, dissemination. H.4.1 [Information Systems Applications]: Office Automation – workflow management. I.7.1 [Document and Text Processing]: Electronic Publishing, Document and Text Editing – document management.

## General Terms

Design.

## Keywords

NIKE, digital library, knowledge management, publications, submission & tracking, crosswalk, public access.

## 1. INTRODUCTION

Many publishing houses are moving to online manuscript submissions and processing systems to handle the work of receiving, reviewing, and publishing scholarly documents. Separate digital archives, integrated library systems, and gateways or portals of various sorts store, organize, maintain, and deliver documents to users. NIST Integrated Knowledge EditorialNet (NIKE), a project designed by the National Institute of Standards and Technology (NIST) Information Services Division, will combine all of these elements. NIKE will streamline NIST's complex manuscript submissions workflow and put scientific documents within the public grasp. The project is currently in the first of two development phases.

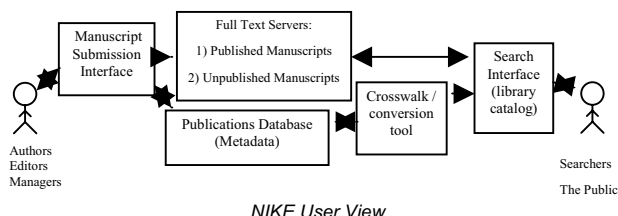
## 2. OVERVIEW

**Basics:** A comprehensive digital knowledge management system, the NIKE infrastructure will integrate a web interface; a publications database of bibliographic and process information; a server of full text, video, audio, and database documents; and an integrated library system that will provide access both to bibliographic data and digital documents.

**Functionality:** Entryways customized by user role and location in the organization will allow users to enter metadata that will be translated by means of crosswalk scripting into library Machine-Readable Cataloging (MARC-21) records. Uploaded manuscripts will be read, edited, and approved by peers and managers before being submitted to scholarly journals or published in-house. Upon completion, approved manuscripts will automatically be sent from a file server behind a firewall to a Web server of published documents. An online library catalog will provide public access to published NIST digital documents.

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## 3. NIKE SYSTEM



## Main features

- **Database:** A new Oracle database extending a pre-existing NIST database to support the needs of all the NIST laboratories. Tables store user, organizational, process, and metadata information.
- **Web Interface:** The web interface will be used for manuscript submission, approval process, editorial review, searching, locating records, and creating reports.
- **Online Library Catalog:** The online catalog provides journal authority control, a sophisticated search engine, and links to published digital documents.
- **Crosswalk:** A software program using Perl scripting is being developed to automatically migrate the captured relevant data in the new Oracle database to the integrated library system. The crosswalk will work seamlessly between the NIKE and online catalog systems.
- **Server:** The NIKE system will house full-text manuscripts, final published documents and supplemental files.

## 4. PHASED RELEASES

Phase I	Phase II
<ul style="list-style-type: none"> <li>• Submit and track a manuscript</li> <li>• Create reports</li> <li>• Migrate bibliographic data</li> </ul>	<ul style="list-style-type: none"> <li>• Online peer-review</li> <li>• Electronic approval</li> <li>• Online revisions</li> <li>• Electronic signatures</li> </ul>