

Identifying Biomedical Publications Across An Interdisciplinary Institution

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View the 80-page NIST Biosciences Bibliography at http://nvl.nist.gov/pub/nistpubs/NIST_SP_1059_Biosystems_and_Health_Bibliography.pdf

1. Introduction

In this era of electronic resources, the value that a skilled library professional can add is often forgotten. At the National Institute of Standards and Technology Research Library a biomedical reference librarian collaborated with a working group of multidisciplinary research staff to create a unique bibliography of over 1,000 bio-related articles and papers published by NIST researchers in scientific journals, conference proceedings, and NIST series publications over a period of five years.

2. Background

NIST develops and promotes measurement, standards, and technology to enhance security and improve the quality of life.



Bioscientific research and publishing take place across NIST

There is no specific unit that conducts research in the life sciences; bioscientific measurement and standards research takes place across all NIST work units. Many authors publish bio as well as nonbio-related papers.

3. The Challenge

How to cull papers in the biosciences from the larger body of NIST scientific publications?

A bio working group, comprised of one researcher from each of the work units plus a biomedical reference librarian, wanted to highlight NIST's work in the biosciences by publishing a compilation of the bioscientific knowledge disseminated by NIST over a five year period.

4. Method

The biomedical reference librarian first worked with the bio group to develop a comprehensive list of search terms pertinent to NIST's many bioscientific topic areas.



Sample NIST bio topic areas

MEDLINE

MEDLINE was the first database searched. We used PubMed's index affiliation to identify all papers written by authors affiliated with the National Institute of Standards and Technology OR NIST and located in Gaithersburg OR Boulder OR Rockville (NIST locations) between 2001 and 2005.

The output was 744 records, which we downloaded to a citation management software program.



We began with PubMed's Index directory

Web of Science

Next we searched ISI Web of Science for all addresses in Gaithersburg, Boulder, or Rockville. Using Web of Science's new "Analyze" tool, we selected all articles indexed by institution: National Institute of Standards and Technology OR NIST. We viewed the 6,307 records and again used the Analyze tool, this time to analyze by subject category.

Then we selected and viewed 670 records of subject categories related to the life sciences, and downloaded them into our citation management software, eliminating duplicates from the MEDLINE search.



Web of Science's new analysis tool

IEEE Xplore, CSA Materials Research Database

Combining the search terms identified by the researchers with affiliation terms, we searched IEEE Xplore and CSA Materials Research Database with METADEX.

We again exported all citations to the citation software, eliminating more duplicates.



IEEE Xplore and CSA Materials Research Databases include conference papers

Last, we searched our library catalog for NIST series publications with bioscientific topics and added those manually to our citation management database.

5. Product

The end product was a listing of more than 1,000 bioscientific journal articles and series publications published by NIST researchers between 2001-2005. The bio working group was pleased to be able to easily share NIST's publication output with the larger research community. We published it in searchable PDF format so customers could locate publications by topic.



CD, searchable PDF