

A New Digital Archive and Search Platform for Georgia Department of Transportation (GDOT) Research

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OBJECTIVE

To design and create an integrated, easily maintained, usable digital archive that can

- House digital reports and other artifacts;
- Provide relevant, reliable, and usable search functions; and
- Generate customized annotated bibliographies.

PROBLEM STATEMENT

Employees at the Georgia Department of Transportation (GDOT) frequently refer to the department's archived research reports to help them stay on top of industry trends and learn which materials perform well during tests.

Unfortunately, employees

- Found the system difficult to navigate;
- Found some reports were missing or incomplete in the archive;
- Did not have a standard taxonomy for searching past research;
- Could not generate customizable reports and bibliographies; and
- Received little training on using the online archive.

METHODS

1. Needs Assessment

2. Design

- a. Software Selection
- b. Indexing Design
- c. Archive Loading
- d. Process Standardization
- e. Process Documentation

3. Usability Testing

- a. Usability Assessment
- b. Software, Process, and Document Modification

4. Training and Transfer of Findings

- a. User Guide Development
- b. Live (In-Person) Staff Training
- c. Recorded (Portable) Training
- d. Dissemination of Results

An existing digital research archive can be customized to users' needs in an evolving organization.

Keywords:

digital archives, information science, user experience, taxonomy, research database, training delivery



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RESULTS

Over the course of the project, investigators

- Administered a **needs assessment** and usability study help determine the users' needs and expectations for the system;
- Applied a **taxonomy** to standardize operations;
- Created **simple JavaScript code** to add functionality when an out-of-the-box system fell short of users' needs; and
- Used **multiple delivery methods to train** current and future users on the system.

DISCUSSION

The project used the latest techniques and strategies from the field of information science to establish a **new robust taxonomy** for tagging and searching report entries. Newly updated records include **fully searchable abstracts** and other identifying information. The new system seamlessly integrates a record selection tool that makes the creation of **customizable annotated bibliographies** quick and simple. GDOT personnel have learned how to use the digital repository at the **on-site training**, delivered at the conclusion of the project.

The resulting system is manageable, expandable, and sustainable, thus enhancing the decision-making processes for future GDOT research initiatives.

This approach might be useful to other organizations seeking to update research archives.

ACKNOWLEDGEMENTS

The authors acknowledge and appreciate

- **Jeremy Brown**, *Associate Dean of Library Services at Florida Gulf Coast University and former Assistant Dean for Technical Services and Systems and Associate Professor in the Jack Tarver Library at Mercer University;*
- **Binh Bui**, *Research Implementation Manager/Library Supervisor at GDOT;*
- **David Jared**, *Assistant Office Head/Research Section Head at GDOT;* and
- **Amy Ramsey**, *Office Manager/Administrative Assistant at GDOT.*

This research project was sponsored by the Georgia Department of Transportation (Grant 0015842; GDOT Research Project 18-20) and conducted in cooperation with the U.S. Department of Transportation, Federal Highway Administration.