MyInfoVault

Citation Storage
Functional Specifications

Version 2.0
February 16, 2007

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Introduction

MyInfoVault (MIV) is the academic merit and promotions system for the University of California, Davis.

The current citation storage process for publications in the MIV system allows users to enter citations into the MIV database in two formats: 1) individual fields, or 2) one full text field. Providing the option to store citations as full text fields or individual fields was an early implementation decision but with the present objective to establish the MIV database as a data repository, the decision was made by the MIV Oversight Committee to eliminate the full text field option.

The advantages of storing citations as individual fields rather than full text fields are that the data resulting from individual fields will permit specific and refined searches, increase database scalability, improve sorting and reporting capabilities, enhance detection of data integrity issues, and the MIV database will become an improved data repository for citations.

Definitions

Data Repository
A *data repository* is a database that acts as an information storage facility, storing and maintaining data.

Database Field
A *field* is a space allocated in a database for a particular item of information. A journal citation, for example, contains a number of fields: one for title, one for authors, one for volume, and so on. In database systems, *fields* are the smallest units of information you can access. Most fields have certain attributes associated with them, some are numeric whereas others are textual.

Individual Text Field
Individual field refers to citations that are entered and stored in the MIV database in separate text columns. For example, a journal citation that is split into individual title, publication, authors, volume, issue and page fields.

Full Text Field
Full Text Field refers to citations that are entered and stored in the MIV database as one text field. For example, a journal citation that is not split into individual title, publication, authors, volume, issue and page fields, but rather, a citation that consists of those fields combined together to create one text field.

Relational Database
A *relational database* maintains a set of separate, related files (tables), but combines data elements (fields) from the files for queries and reports when required.

Required Field
A *required field* is a field in which you must enter data (An *optional field* is one you may leave blank).

Citation Storage Requirements

- The requirements stated below are solutions to existing problems in order to illustrate the gains in data integrity, presentation, performance, and security.
- The system will be refactored with the following requirement assumption:
  Users of the MIV system will have/or obtain a Kerberos Account at: http://ComputingAccounts.ucdavis.edu

Problem	Solution
System Security and Availability	1. To remain the same as the current MIV implementation.
Privacy	1. To remain the same as the current MIV implementation.
User Interface/ Graphic Design Standards	1. To remain the same as the current MIV implementation.
Navigation Menu Usability	1. To remain the same as the current MIV implementation.
Citation Form Presentation/ Performance	1. Text can only be entered in individual text fields for new and updated citations. 2. No full text field input option for text will be available for new and updated citations. 3. An optional "Scratchpad Area" will be provided for copying and pasting text that is to be entered in individual fields. 4. No data can be saved in the Scratchpad Area. 5. Use of the Scratchpad Area is optional. 6. No data will be lost due to the addition of the Scratchpad Area. 7. Existing or new Data in the Scratchpad Area will be handled as follows: **Adds** • If there is remaining text in the Scratchpad Area when a new citation is "added", a warning message will appear after the user clicks the "add" button, alerting him/her that the text in the Scratchpad Area will not be saved. An option to "proceed" or "cancel" will be provided. If the user chooses to "proceed", the Scratchpad Area data will not be saved. Selecting the "cancel" button will return the user back to the data entry screen. **Updates** • If there is remaining text in the Scratchpad Area when a citation is "updated" a warning message will appear after the user clicks the "update" button alerting him/her that the text in the Scratchpad Area will not be saved. An option to continue or cancel will be provided. If the user chooses to "proceed", the Scratchpad Area data will not be saved. Selecting the "cancel" button will return the user back to the data entry screen. • Selecting the "Back" button will return the user to the main "Enter Data" listing screen (i.e., the behavior of the "back" button remains unchanged), and the citation will remain unchanged. **Transfers (Citations to other categories)** • If there is remaining text in the Scratchpad Area when a citation is "transferred" to another citation category, then a warning message will appear after the user clicks the "Transfer" button alerting him/her that a citation cannot be transferred if there is text in the Scratchpad Area. The user is then returned to the data entry screen. • By clicking the "Transfer" button, the user updates and transfers the citation data in the individual fields. The Scratchpad Area must be empty to perform a "transfer". 8. The Scratchpad Area will be labeled to warn users that data in this field will not be saved.
Implementation	1. The MIV programmer will provide a list of faculty, by department, for which data exists in the full text field and must be moved to individual fields. 2. Student assistants will manually migrate the full text data to individual text fields as needed. Carolyn Borgnino is the contact for questions. Existing data changes must be completed by September 1, 2007.

Implementation

Each citation data element will need to be entered into individual text fields. Citation data will only be saved if it is entered into individual fields. The MyInfoVault system will combine the individual fields into a full citation for screen, packet, CV and NIH Biosketch presentation, etc. as needed. No additional formatting of data is required by the user.

When entering publication citations users will enter data in individual fields for the following publications:
  • Journals
  • Books (Authored)
  • Books (Editor)
  • Book Reviews
  • Book Chapters (peer-Reviewed)
  • Letters to the Editor
  • Limited Distribution
  • Alternative Media
  • Abstracts

Following are the individual fields for the citation data elements:
  • **Journals**: Title, Publication Name, Authors, Volume, Issue, Pages
  • **Books (Authored)**: Title, Publication Name, Authors, Editors, Publisher, City, Volume, Issue, Pages
  • **Books (Editor)**: Title, Publication Name, Authors, Editors, Publisher, City, Volume, Issue, Pages
  • **Book Reviews**: Title, Publication Name, Authors, Volume, Issue, Pages
  • **Book Chapters (peer-Reviewed)**: Title, Publication Name, Authors, Editors, Publisher, City, Volume, Issue, Pages
  • **Letters to the Editor**: Title, Publication Name, Authors, Editors, Publisher, City, Volume, Issue, Pages
  • **Limited Distribution**: Title, Publication Name, Authors, Editors, Publisher, City, Volume, Issue, Pages
  • **Alternative Media**: Title, Publication Name, Authors, Editors, Publisher, City, Volume, Issue, Pages
  • **Abstracts**: Title, Publication Name, Authors, Editors, Publisher, City, Volume, Issue, Pages

Any data that was previously entered in the full text field (approximately 22% of the total citation data) will continue to be available so that it can be cut and pasted into individual text fields using what will now be referred to as the "Scratchpad Area". The Scratchpad Area will provide the following functionality:
  1. No data will be saved in the Scratchpad Area.
  2. Use of the Scratchpad Area is optional.
  3. No data will be lost due to the addition of the Scratchpad Area.
  4. Users can copy and paste data into the Scratchpad Area allowing the user to stay in the same MIV citation screen to perform their editing. (This change allows for easier data entry since a citation can be copied and pasted once into the Scratchpad Area and then moved to individual text fields.)
  5. The system will detect if data exists in the Scratchpad Area and require the data be entered in the individual text fields before the citation is saved.
  6. Users will be presented with an alert if data has not been entered in the individual text fields when they add, update or transfer a citation to another category.
      Adds
      • If there is remaining text in the Scratchpad Area when a new citation is "added", a warning message will appear after the user clicks the "add" button, alerting him/her that the text in the Scratchpad Area will not be saved. An option to "proceed" or "cancel" will be provided. If the user chooses to "proceed", the Scratchpad Area data will not be saved. Selecting the "cancel" button will return the user back to the data entry screen.
      Updates
      • If there is remaining text in the Scratchpad Area when a citation is "updated" a warning message will appear after the user clicks the "update" button alerting him/her that the text in the Scratchpad Area will not be saved. An option to continue or cancel will be provided. If the user chooses to "proceed", the Scratchpad Area data will not be saved. Selecting the "cancel" button will return the user back to the data entry screen.
      • Selecting the "Back" button will return the user to the main "Enter Data" listing screen (i.e., the behavior of the "back" button remains unchanged), and the citation will remain unchanged.
      Transfers (Citations to other categories)
      • If there is remaining text in the Scratchpad Area when a citation is "transferred" to another citation category, then a warning message will appear after the user clicks the "Transfer" button alerting him/her that a citation cannot be transferred if there is text in the Scratchpad Area. The user is then returned to the data entry screen.
      • By clicking the "Transfer" button, the user updates and transfers the citation data in the individual fields. The Scratchpad Area must be empty to perform a "transfer".

The goal is to make data entry for MIV citations as easy as possible while also providing the groundwork to establish the MIV system as a data repository.

The changes to citation web pages require a refactoring of the underlying code base and database structure to handle individual fields. The user interface will be upgraded to reflect these backend changes.

The new data entry interface will require user notification and training.

MIV system functionality/user interfaces that will be changed:

All publication "add", "update" and "transfer" to another category screens including:
- Journals
- Books (Authored)
- Books (Editor)
- Book Reviews
- Book Chapters (peer-Reviewed)
- Letters to the Editor
- Limited Distribution
- Alternative Media
- Abstracts

MIV system functionality/user interfaces that will not be changed:

All non-publication "Enter Data" screens including Switching Accounts (Role Management), Electronic Signatures, all packet Workflow and Letters screens: CV Online, Packet Online, NIH Biosketch, Review Packets, Faculty Access List, Member List, Member list by Selected Dept., Merit/Promotion/Appraisal Packets, Assign Packet Reviewers, List School Packets, Completed Packet Archive, EDMS Packet Utility, Access Authorization, Send my Packet to my Department, Email my CV, Publish my CV on the Web, Add a New User, Electronic Signature, and Access Member's Account.
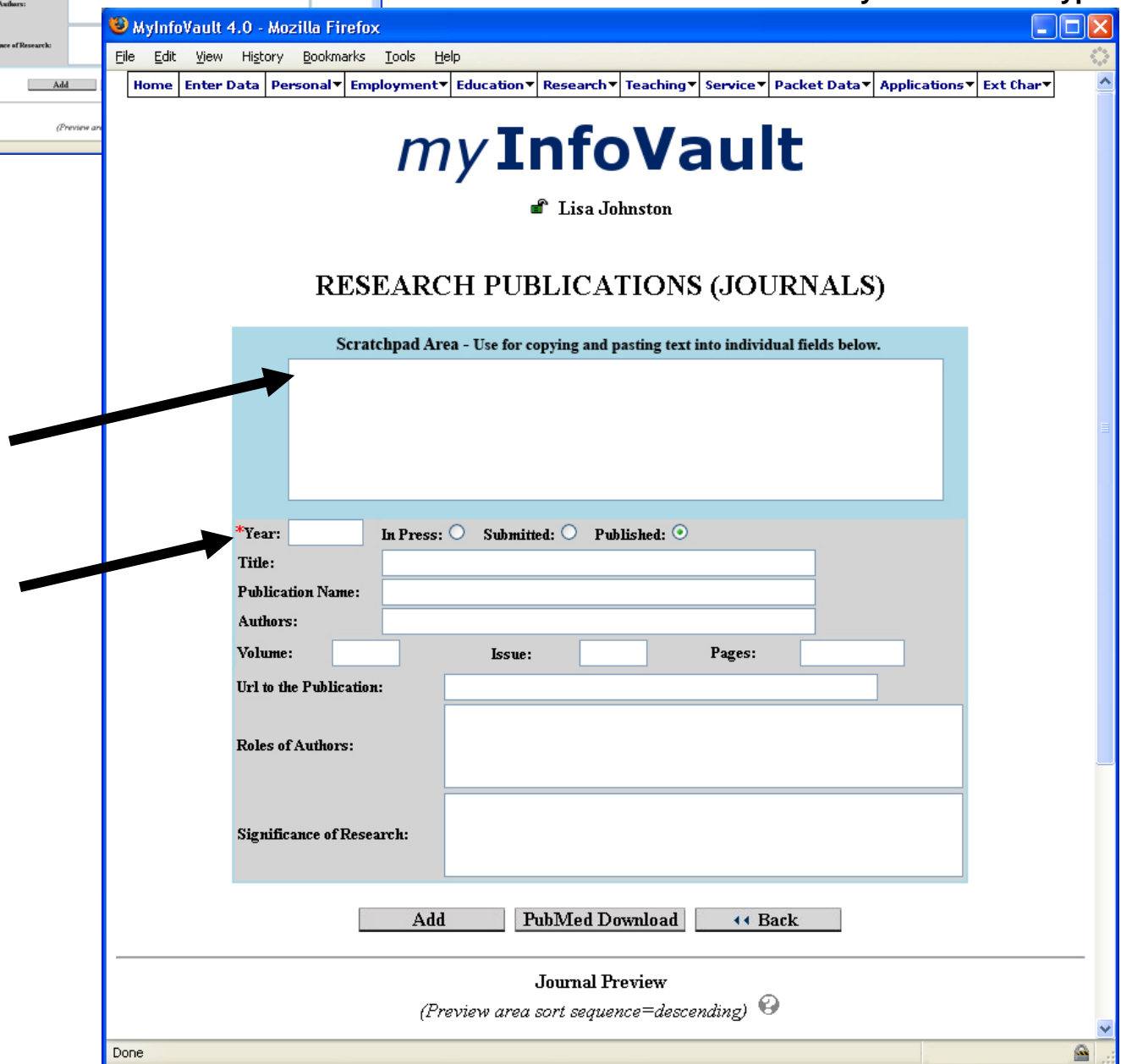
User Interface Design Updates

The "look and feel" of the publication "add" and "update" pages will change:
1. The replacement of the full text copy and paste area with a "Scratchpad Area".
2. Relocation of the "Year", "In Press", "Submitted", and "Published" fields below the "Scratchpad Area".

### Current Citation screen
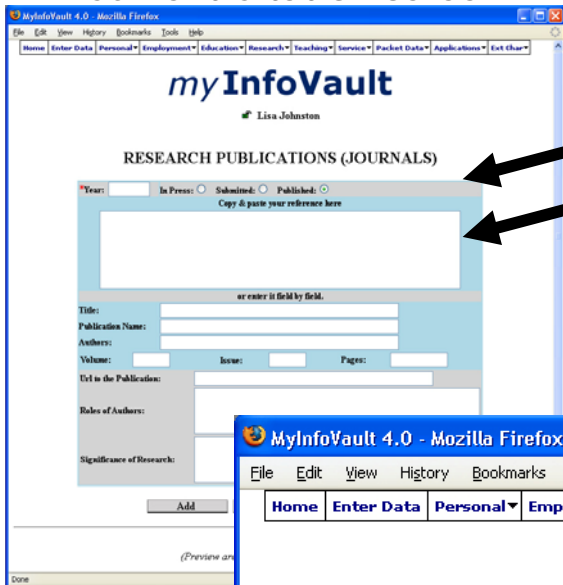
New Citation Entry Screen Prototype

3. Data previously entered as one full text field will not be lost. It will appear in the "Scratchpad Area" when the citation is updated.
4. If a user tries to update a citation that was previously entered or transfer a citation to another category that contains a full text field without converting the text to individual text fields, a warning message will appear after the user clicks the "update" button alerting him/her that the text in the Scratchpad Area will not be saved for the updated citation.
5. If a user selects the "back" button from the citation edit screen the screen will go back to the main "Enter Data" listing screen (i.e., the "back" button behavior will remain unchanged").

Current Full Text Field Screen
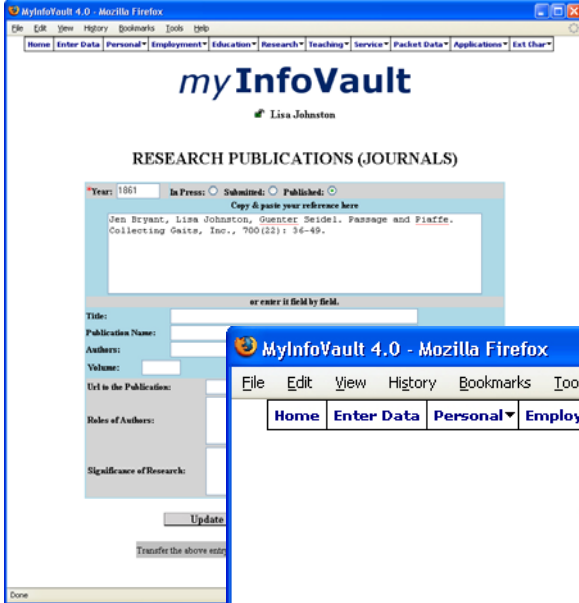
New Citation Entry Screen Prototype Warning
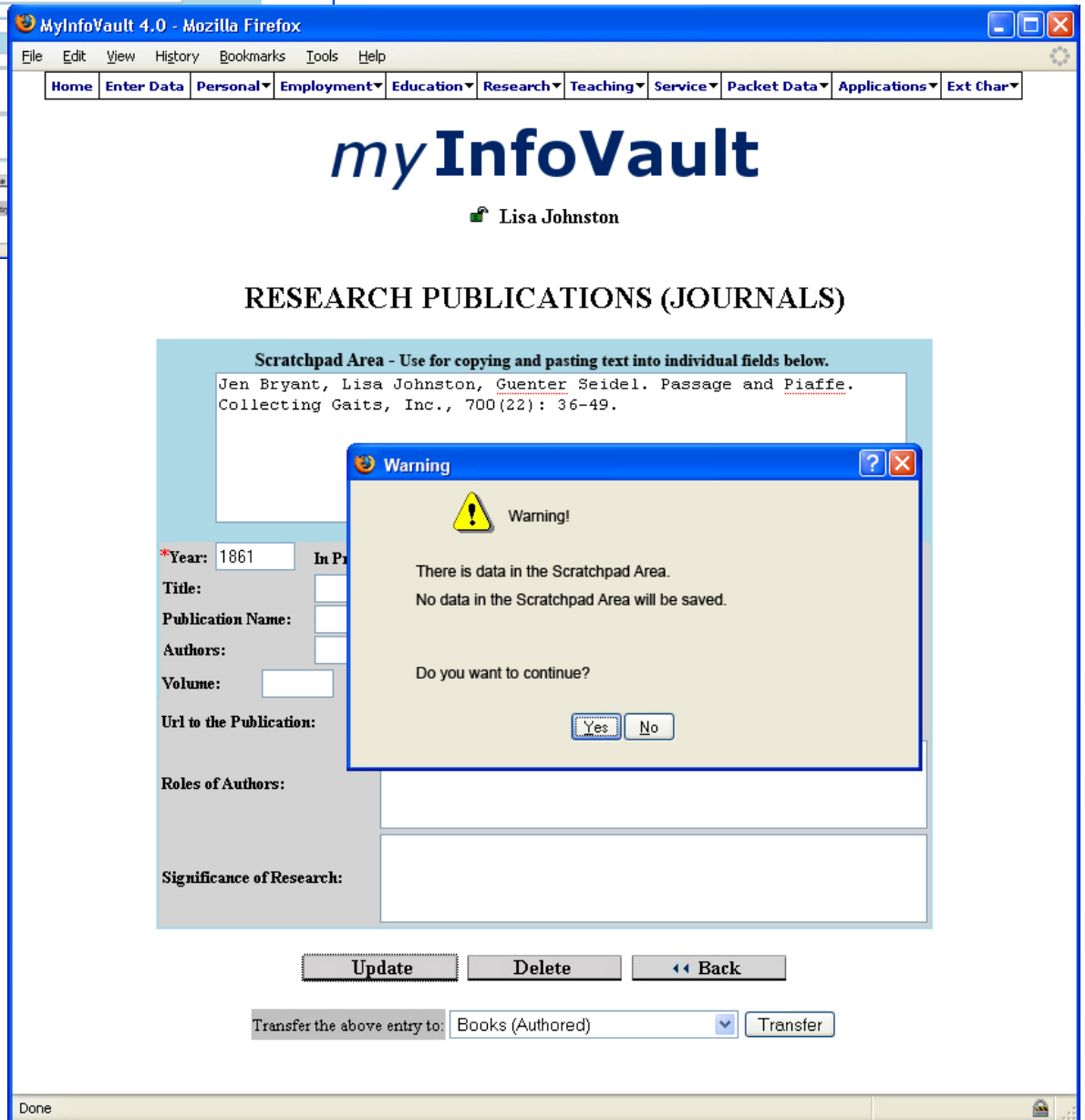
Summary of Enhancements

The Citation Storage for all MIV publication data entry pages should be designed with the following features:

1. **Data Repository:** The MIV system will be established as a data repository.
2. **Database Scalability:** The MIV system will be able to accommodate the addition of new citation fields.
3. **Detection and Reduction of Data Integrity Issues:** The MIV system will allow for enhanced detection of data integrity issues.
4. **Database Searchability:** All data elements within a citation will have the future ability to be queried. For example, all citations by a certain author can be obtained by searching the individual text column for that author's name.
5. **Sorting Data:** All individual text field citation data will have the future ability to be sorted.
6. **Areas of Interest:** Individual text field citation data can be used to determine areas of interest for faculty in the future. A faculty member could add any number of interest area search terms. This gives faculty greater control over interest area searching than would be possible from current citation data.
7. **Reporting:** Individual data elements, which together comprise citations, will increase reporting capabilities in the future MIV system.

Technical Specifications that will be added to this document

1. Database structure modifications.
2. Software modifications.
3. Data entry field modifications.
4. System performance.