SERLER Workflow

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Getting Material into SERLER

A submitter will submit the bibliographic details of a study they want to be included in SERLER. The submitter may be any person registered with SERLER. The bibliographic details can be uploaded into SERLER in a standard format text file (eg Bibtex format) or the information can be typed in manually, or a combination of these. The pdf version of the article can NOT be included, for copyright reasons. There can be no link to the article online either, apart from the DOI of the article. Users may have to pay the publisher to get the full article or pay the fees to join a commercial online database such as ACM or IEEEXplore. This is outside the scope of SERLER, however.

Submitted articles will go into a queue in SERLER for the SERL moderator to do a quality check. The moderator should be notified by SERLER if there any articles waiting in the queue (emailed report?). The moderator will then login to SERLER and can retrieve the list of articles in the queue awaiting moderation. They can then manually check that each article in the submitted queue is not already in SERLER or has not been rejected previously (can this be automated?). They will also check that each article is relevant to SE and the empirical evaluation of SE practices and methods and has been published in a peer reviewed journal. Accepted articles go into another queue ready for the SERL analyst to work on. Rejected papers go into a rejected papers database. The analyst is notified if there are any papers in the queue ready for analysis (emailed report?). The submitter is notified of the outcome of the moderation (accept or reject).

In the future it would be great to have SERLER searching online databases for suitable articles for inclusion the repository, and recommending these, using AI techniques.

The SERL analyst will analyse each of the papers in the analysis queue and extract the appropriate information from the articles to enter into SERLER. The bibliographic information should be automatically transferred to SERLER from the information the submitter submitted. The input screens should be quick and easy to enter the information, with default values and drop down lists where appropriate.

In the future it would be desirable to have SERLER automatically the extraction of some of the information from articles to be entered into SERLER for checking by an analyst.

Searching SERLER

Users of SERLER will be able to search for any articles which relate to any combination of specified SE methods or practices, research methods, research outcomes, date ranges, as well as bibliographic data such as author or titles. The searching should have pull-down values where appropriate. The user should be able to add any number of search constraints based on the information in the repository (see my idea later). Any query done by a user can be saved and the user can run those queries at a later date to get the latest results.

Searcher users can be students, researchers, industry who have registered for the repository. These users can also submit a rating (1-5 stars) for any article and the average rating is displayed as “user article rating”.

Searchers can also browse the database sorted by a specified high-level constraints such as date, title, author, SE methodology

When viewing the results of a query in a table format, Searchers can specify what fields to display for in the display columns and can sort the display of the query results on any column.

The Administrator of SERLER should be able to accept, create, modify and delete registered users, moderators, and analysts as well any