FastLane

PI/CO-PI Management –
Proposal Functions | HOME ▶

Proposal Status | MAIN ▶

Organization: University of Alabama Tuscaloosa

Review #2

Proposal Number:	1629871
NSF Program:	COMPUTING RES INFRASTRUCTURE
Principal Investigator:	Carver, Jeffrey C
Proposal Title:	CINew: Advanced Systematic Literature Review Authoring Infrastructure for Software Engineering
Rating:	Good

REVIEW:

In the context of the five review elements, please
evaluate the strengths and weaknesses of the proposal with respect to intellectual merit.

Description of project:
The proposed project will build the Systematic Literature Review Authoring Infrastructure and Toolkit for Software Engineering (SAInT), a set of technologies whose overriding goal is to automate the process of Systematic Literature Review (SLR). In essence, the proposed SAInT infrastructure will make it possible to search for software engineering research literature across multiple digital libraries, persist the results, and enable collaborators to easily share their literature search efforts.

Strengths:
Learning about the existing state of the art is a prerequisite for any serious research endeavor. Hence, the proposed project focuses on a key component of the research enterprise. The project draws lessons from the SLR process followed in the medical research field, which it can also benefit, an example of productive interdisciplinary cross-pollination.

Weaknesses:
Although SLR is an extremely labor intensive process, this reviewer does not see the searching of multiple databases and persisting the search results parts as the true bottlenecks of this process. The most difficult parts of SLR remains the actual reading of the located papers, understanding their contribution, figuring out how it fits the narrative, and describing the findings in writing. Hence, by focusing on the least labor-intensive and intellectually challenging aspects of SLR, the proposed project is unlikely to significantly improve the SLR process and benefit the software engineering research community.

In the context of the five review elements, please
evaluate the strengths and weaknesses of the proposal with respect to broader impacts.

Strengths:
The proposed project aims at improving SLR, a core process of the research enterprise, by making it more accessible, reproducible, and comprehensive. The proposed infrastructure can potentially benefit the healthcare research community as well.

Weaknesses:
By focusing on the more mundane and mechanical aspects of SLR, the proposed project is unlikely to have a significant broader impact.

Please evaluate the strengths and
weaknesses of the proposal with respect to any additional solicitation-specific review criteria, if
applicable

The proposed project aims at improving SLR, an essential component of experimental research. If successful, it can benefit all experimental researchers, a growing group of the Software Engineering research community.

Summary Statement

It would be very useful to include a specific example of SLR and explain why the existing tool-chair is inadequate to

properly support it.

The project is concerned with an important problem, facilitating systematic literature review, and aims at improving it by providing automated tools for searching across multiple digital libraries by potentially multiple research collaborators and persisting the results. By focusing on these particular aspects of SLR, unfortunately this project is unlikely to significantly improve SLRs for the software engineering research community.

◀ **Back to Proposal Status Detail**

Download Adobe Acrobat Reader for viewing PDF files

National Science Foundation
4201 Wilson Boulevard, Arlington, Virginia 22230, USA
Tel: 703-292-5111, FIRS: 800-877-8339 | TDD: 703-292-5090

Privacy and Security