FastLane

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

Proposal Status | MAIN ▶

Organization: University of Alabama Tuscaloosa

Review #4

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:	Multiple Rating: (Very Good/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
Proposes to build an end-to-end system for supporting SE systematic literature reviews, enabling easier queries, collaboration amongst teams, and sharing of extracted data between researchers.

STRENGTHS

+ The prior work and project plan incorporates a number of mechanisms for soliciting needs from potential users, gathering feedback on features, and ensuring the design effectively meets user needs. The surveys and two workshops completed to date have already involved a substantial number of potential users and seem to have led to the focus on the four key features of (1) identifying papers, (2) collaborative SLRs, (3) storage of extracted data, and (4) evolution of SLRs over time. Each of the individual features are directly motivated by the requirements that were extracted and clustered from the needs of real users of SLRs.

WEAKNESSES

- There is not a lot of detail on how exactly the proposed infrastructure will differ from existing systems. The characterization of other systems as being incomplete or 'partially covering' the activities does not really offer much insight into how effectively the existing tools support (or might soon support through their own development efforts) the key scenarios identified from the SLR user community.

- There is not a lot of detail on how the proposed features will address the user needs. It seems that, no matter the tool support, some aspects of systematic literature reviews will always take substantial time. It would be helpful to better clarify how and the extent to which the proposed features can increase user productivity.

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

STRENGTHS

+ Systematic literature reviews are increasingly prevalent in SE, but still time consuming to conduct. Reducing the cost of conducing such studies has the potential to have a real impact on increasing the dissemination of SE results to the broader SE community and to facilitate transfer of such results to practice.

+ PIs have demonstrated impressive level of support from a number of corporate partners.

WEAKNESSES

- Potential for real impact diminished by crowded space of competitors.

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

STRENGTHS

+ Proposal is well targeted to SE research. Team has expertise in area. Extensive consideration of user needs and iterative design process.

WEAKNESSES

- Hard to differentiate from similar existing approaches.

Summary Statement

This proposal aims to reduce the cost of conducting systematic literature reviews through infrastructure that supports more easily identifying papers, collaborating on SLRs, storing and sharing extracted data, and evolving SLRs over time. The proposed work benefits greatly from extensive engagement of many SLR users in the design process, which directly motivates the proposed features. There are, however, many existing SLR systems that at least partially support many of the areas, making the additional benefits of the proposed system less clear.

◀ **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