

Keeping well-informed in computer-supported peer review
LRDC Internal Grant Final Report
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Summary

- The team developed and tested three families of tools for teachers to provide teaching-relevant overviews of the peer reviewing of writing activities implemented in the SWoRD system: 1) common issues found in peer comments for a particular assignment; 2) patterns in reviewing and writing weaknesses across subgroups students in a class; and 3) level of revision found across drafts for an assignment. The findings from this pilot work led to new grant proposals. All four coPIs have continued to collaborate in various combinations.

Submitted federal grants based on this project:

- \$1.6M NSF submission to the Dec 2013 DRK-12 deadline: *An Intelligent Ecosystem for Science Writing Instruction*. PIs: Chris Schunn, Diane Litman, Amanda Godley

Other grants received:

- Diane Litman received a 2014 Google Research Award entitled *Peer Review Search & Analytics in MOOCs via Natural Language Processing*.

Journal articles:

- Goldin, I. and Ashley, K. D. (2012) Eliciting Formative Assessment in Peer Review, *Journal of Writing Research*, 4(2), 203-237.

Conference papers:

- Ashley, K.D and Goldin, I.M. (2011). Toward AI-enhanced Computer-supported Peer Review in Legal Education. *Jurix 2011: The 24th Annual Conference*, pp. 1-12 (Katie M. Atkinson ed.) IOS Press.
- Goldin, Ilya M., and Kevin D. Ashley. (2011). Peering Inside Peer Review with Bayesian Models. Proceedings of the 15th International Conference on Artificial Intelligence in Education. *Lecture Notes in Computer Science*, 6738, pp. 90-97. Auckland, New Zealand
- Wenting Xiong, Diane Litman, Jingtao Wang, and Christian Schunn. An Interactive Analytic Tool for Peer-Review Exploration. *Proceedings 7th Workshop on Innovative Use of NLP for Building Applications (NAACL-HLT Workshop)*, pages 174-179, Montreal, Canada, June 2012.
- Wenting Xiong and Diane Litman. Evaluating Topic-Word Review Analysis for Understanding Student Peer Review Performance. *Proceedings 6th International Conference on Educational Data Mining (EDM 2013)*, pages 200-207, Memphis, TN, July 2013.
- Hashemi, H. B., & Schunn, C. D. (2014, June). A tool for summarizing students' changes across drafts. Paper presented at the *12th International Conference on Intelligent Tutoring Systems*. Honolulu, HI.
- Xiangmin Fan, Youming Liu, Jingtao Wang, MindMiner: A Mixed-Initiative Interface for Interactive Distance Metric Learning, In Submission to *ACM Symposium on User Interface Software and Technology (UIST 2014)*.