Editorial

Outstanding Submissions to the AMIA Annual Symposium Now Featured in JAMIA

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The AMIA Annual Symposium is the premier forum for live presentation of scientific studies in biomedical informatics. Since its inception in 1976 as the Symposium on Computer Applications in Medical Care (SCAMC), the AMIA Symposium has showcased leading-edge informatics studies and promoted the exchange of ideas within a diverse community. Recognizing the importance of the symposium, as well as the reality of current academic promotion systems, the Scientific Program Committee (SPC) of the 2008 AMIA Annual Symposium developed a strategy to recommend outstanding AMIA manuscript submissions for possible publication in JAMIA. Since MEDLINE® has for years indexed the articles that appear in the AMIA Symposium, JAMIA has traditionally treated those works as “already published.” Thus, in order for a paper published in the AMIA Proceedings to merit consideration as a JAMIA submission, JAMIA has required authors to add new methods, and produce substantially different results that lead to new insights.

The intent of the current new initiative was to motivate authors to submit their best work and have it presented at the Annual Symposium, while also giving selected authors the opportunity to publish nonduplicative work in a scientific journal. The key enabling factor was early review of AMIA Symposium submissions that allowed us to invite authors of outstanding AMIA papers to convert them to JAMIA submissions directly, while substituting abstracts of less than 400 words to replace the selected manuscripts’ original submissions in the AMIA Proceedings.

In the first year of the initiative, we implemented a pilot strategy. The 2008 AMIA Scientific Program Committee nominated only a very small number of manuscripts for consideration in JAMIA. From twenty-two nominated manuscripts, the JAMIA Editorial Office selected nine for full review as potential JAMIA submissions. The SPC invited the authors to revise their manuscripts according to recommendations from AMIA reviewers, and to extend the text wherever necessary. The authors were free to follow the recommendation and submit to JAMIA, or to decide to leave their AMIA papers “as is” in the AMIA Proceedings and not submit to JAMIA. All of the papers appeared as regular presentations at the AMIA Meeting. Those papers that did not pass JAMIA peer review still appeared in the AMIA Proceedings as 400-word abstracts, and authors can still submit the corresponding full-length papers elsewhere if they choose to do so.

We include in this issue a set of four AMIA submissions that passed full, rigorous JAMIA peer review after expansion as “selected AMIA manuscripts”. By coincidence, all four relate to information retrieval and natural language processing applications:

- Kilicoglu et al. demonstrated the feasibility of utilizing machine learning algorithms to automate the process of retrieving scientifically rigorous clinical research evidence from the literature, and discuss the potential for clinicians to benefit from this application.
- Lu et al. showed that document retrieval by a simple term-weighting approach (TF-IDF) outperformed retrieval based on sentence-level co-occurrence in a given set of queries for MEDLINE. The authors advocate for the use of this approach in PubMed.
- The two manuscripts related to natural language processing include: Uzuner et al. who extended the rule-based NegEx algorithm to cover alter-association assertions in an Extended NegEx (ENegEx) system and compared it to a Statistical Assertion Classifier (StAC). The authors showed that StAC models developed on a training set of discharge summaries outperform ENegEx when applied to a previously unseen (test) set of radiology reports.
- Xu et al. showed that a clustering-based method outperforms manual annotation in the task of building sense inventories of clinical abbreviations for randomly selected samples of hospital admission notes.

Three other manuscripts originally submitted to the AMIA Symposium and later extended for JAMIA will appear in the next JAMIA issue and are currently available on JAMIA’s Web site as publish-ahead-of-print “PrePrints.” The remaining two manuscripts are currently undergoing revision and their final JAMIA status will be determined at a later date.
The SPC for the 2009 AMIA Annual Symposium has committed to continue and expand support for this initiative. We expect an even larger number of outstanding submissions to the AMIA Symposium by the deadline of March 13, 2009. The SPC will scale up the pilot strategy adopted in 2008 to promote a substantial increase in the number of manuscripts that are invited for potential publication in several biomedical informatics journals. Annual symposium attendees, biomedical informatics journal readers, and especially authors will benefit from the flexibility of this strategy, which constitutes a small but important step towards the goal of rewarding excellence in the field of biomedical informatics.

References