

Author Ranking System

Project Proposal

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Emerging Database Technologies

1. Motivation and Objectives

** You should outline the problem and describe your plan to solve it. Especially, you should be specific about the motivation of the problem or issue that you are investigating. Make it clear early on what do you intend to offer? And why are they useful and interesting?*

- In an open wiki system, users face the problem of credibility of content posted and their authors. We aim to fasten the process of getting the most relevant and authentic documents in order of credibility.
- It will thus help them shorten the search time for accessing the right documents avoiding time wastage in going over the documents which are of poor quality.
- Categorization of the documents on the basis of the intended users will provide a better user experience.
- Ranking would help evolve a better system as it protects the users against unreliable authors and maintains a check on the authors as they contribute to the system.
- Enhance the web search in terms of fetching credible results faster. Apart from search over intended data, searching by credible authors, provides a different to the search.
- Ranking of authors might imply ranking of their posts

The objective of the proposed system is to provide author ranking for an open wiki system, reflecting the author's credibility.

2. Related work

** You should identify other published work that is related to your proposal. A good proposal should show that you understand what has already been done and are working to extend that body of work. You are expected to provide references to related work both in the proposal and in the final project report.*

- Most of the related work goes into ranking of the documents or the content on a citation network of publications.
- Recent work also exists on ranking of authors where it takes into account their social network.
- A recent paper [1] considers the ranking between heterogeneous networks (authorship network) combining the citation network of documents and social network of authors.
- The proposed system is a live monitoring system: dynamic in its nature as it ranks and re-ranks the authors as new data is added which is unlike past systems which work on already available static data and its network.
- Existing work focuses on a limited number of factors that could possibly affect the relative credibility of authors, generally limiting to factors like the number of publications or number of citations received or just on the basis of the network characteristics in their social network.

3. Proposed work

** You need to be specific about what you will do in the project, and how you and I will evaluate its success. You should discuss the novelty of your project, such as new ideas, new techniques, or new applications of the existing technology. The proposal should include a sketch of the architectural design, including main components and interconnections among these components*

- The success of the project will be evaluated on the basis of the functioning of the ranking strategy adopted and whether the algorithm actually reflects the credibility of the authors. A set of test cases will be presented which will test the various states in which an author can be in terms of ranking and credibility.
- In the project we will develop an algorithm which will incorporate various factors which can possibly play a role in indicating the credibility of the author.
- This project will act as a model for a bigger setup where in every user has his credit history maintained on the basis of his interaction over the web which parallels the concept of semantic web.

4. Plan of action (what resources, schedule, plan for evaluation)

** You should be specific about what resources (software, hardware, platform considerations) you will need for the project and how you plan to get them. Your proposal must have a weekly schedule/milestones indicating how progress will be made on the project.*

- The project core lies in its concept of ranking authors in an open system to assist the system users in evaluating the authors and their work.
- To demonstrate the concept we build an information sharing system (wiki). Authors post their work here and the system provides a ranking scheme for all the postings on the wiki.
- We use either a Content Management System or a Framework, to create the wiki. The ranking system works at the core of the wiki.

Milestones:

- Getting up the wiki on a CMS or a Framework
- Implementing the Ranking algorithm
- Putting up data on the wiki with author profiles and content topics
- Demonstrate the Ranking System

5. Evaluation and Testing Method

** The proposal should include evaluation/testing considerations and the methods you may use to validate your result.*

- The testing method would involve comparing our system's result against a panel of human auditors. The accuracy of the system would depend upon how close the system's ranking is to the human rankers.
- Test data would be dummy author profiles and postings validating all the factors incorporated in ranking.

6. Bibliography

[1] D. Zhou, S. Orshanskiy, Hongyuan Zha, C. L. Giles. [Co-Ranking Authors and Documents in a Heterogeneous Network](#), 7th IEEE International Conference on Data Mining (ICDM 2007), Omaha, Nebraska, USA, 2007.

[2] [Ying Ding](#), [Francois Scharffe](#), Andreas Harth, Adrian Hogan
6 2006: AuthorRank: Ranking Improvement for the Web.
Proceedings of the 2006 International Conference on Semantic Web and Web Services (SWWS06)