Collaborative assessment software

CSIC has developed a software support tool for trust assessment in online communities. The system recommends the assessments by weighting the expert’s assessments, along with other user’s assessments over the object of evaluation.

Companies are been sought to exploit this software for development of collaboration solutions that range from peer reviews, collaborative learning in formal and informal environment, human resource management platforms, product recommender systems, etc.

**An offer for Software Licensing**

### Agile and dynamic assessments

The component addresses the problem of such environments where the evaluation of a large number of objects is needed. For example, in the case of a teacher in a Massive Open Online Course (MOOCs), a coordinator of a large conference who needs to decide what the final evaluations of the articles reviewed are, or a buyer in an e-commerce site who needs to form an opinion of the products offered.

Sometimes the task is simply not possible and it is necessary to trust in the opinion from others. This component implements an algorithm that uses the assessments made by members of an online community to approximate the evaluation given by another specific member of that community, the “leader” (teacher, coordinator, buyer, etc.), taking into account the confidence relationship between him and the members.

Comparisons made with a commercial software for content recommendations (collaborative filtering) shows that the recommendations counting towards the opinion of a specific member is biased and does not take benefit of the relationships between the leader and third parties (indirect trust). The present model proposes an alternative solution by approaching this unknown confidence between the leader and the community member, by observing the confidence that this member has with third parties, which ultimately, is related to the leader.

### Main innovations and advantages

- Increased number of automatic evaluations with less margin of error.
- The component is a JAVA library with an API to be easily integrated in other applications.
- Two implementations models:
  - Implementation 1: the confidence calculation is based on a graph of confidence.
  - Implementation 2: the confidence is represented as probability distributions and an artificial intelligence algorithm calculates it.

### Patent Status

Spanish notarial register.

**For more information, please contact:**

Virginia Cousté

Deputy Vice-Presidency for Knowledge Transfer

Spanish National Research Council (CSIC)

Tel.: +34 683 269 872

E-mail: virginia.couste@uab.cat comercializacion@csic.es