Annex 6: Habilitation thesis reader's report

Masaryk University
Faculty   MU Faculty of Informatics
Field of Habilitation   Informatics

Applicant   RNDr. Vlastislav Dohnal, Ph.D.
Affiliation   Masaryk University, Faculty of Informatics
Habilitation Thesis   Developing Similarity Search Technology

Reader   Professor Marco Patella
Affiliation   DEIS, University of Bologna

Report Text (as large as the reader deems necessary)

From the research point of view, the applicant has provided a number of results in the field of similarity searching under the metric space model. The bulk of the thesis consists of the book "Similarity Search – The Metric Space Approach", that I consider as "the" reference book for any researcher working in the area. Moreover, the applicant has published results improving state-of-the-art query processing techniques for both centralized and distributed environments and upgrading the quality of query results. Overall, the scientific production of the applicant is to be considered, in my opinion, excellent. The production of scientific articles is also well distributed over the years, without noticeable interruptions.
The applicant has also been principal investigator in 2 national projects and participated to other 4 long terms national projects.
I also appreciated the extensive involvement of the applicant in teaching duties, with no less than three courses given in the last seven academic years (without counting seminars and state exams).

Reader's questions to answer to defend the habilitation thesis (number of questions is upon reader's consideration)

I would like the applicant to comment on the generality of the metric space model, which is taken as granted for most of the content of the thesis. In particular, the applicant could explain whether such model is too restrictive (due to the triangular inequality that should hold for efficient query processing) or too general (because some domain knowledge can be exploited to improve efficiency) for some real-world applications.

Conclusion

Vlastislav Dohnal's habilitation thesis of "Developing Similarity Search Technology" ***does*** meet the standard requirements for a habilitation thesis in the field of Informatics.

In Bologna on …27/1/12………………   Marco Patella…………………………