School of Information Technology and Electrical Engineering

HEAD OF SCHOOL
Professor Michael Bruenig

Senior Lecturer in Data Science
Dr Gianluca Demartini
Telephone (07) 3365 8325
Email g.demartini@uq.edu.au
Internet www.itee.uq.edu.au

CRICOS PROVIDER NUMBER 00025B

Subject: Alberto Tonon's candidacy to the 2018 SWSA Distinguished Dissertation Award

Dear SWSA Distinguished Dissertation Award Committee for 2018,

I am writing this letter to support Dr Alberto Tonon's candidacy to the 2018 SWSA Distinguished Dissertation Award.

I know Dr Tonon for about seven years as his co-author. Dr Tonon published together with me several papers including a full paper in the Proceedings of the 12th International Semantic Web Conference (ISWC'13) which was **nominated for the best paper award** and one in the Proceedings of the 35th International ACM SIGIR conference on research and development in Information Retrieval (SIGIR'12) about his PhD research.

Before looking into the dissertation itself, I want to express my appreciation of a very good CV clearly showing both academic excellence as well as attention to industrial developments.

I appreciate the chosen dissertation focus on knowledge graphs and the way that the candidate has motivated this choice in the early chapters. Generally, the candidate has recognized the importance of this new area of research he has contributed to.

The research carried out by Dr Tonon has resulted in several results: First, the thesis proposes techniques to ensure effective retrieval of entities as answer to a search query in a setting where both structured and unstructured data are available. Then, the thesis addresses the problem of selecting the best type for an entity mentioned in textual documents. The focus then moves to data quality in Knowledge Graphs and to the application of Knowledge Graphs to entity-centric search and event detection in microblogs. Finally, the thesis addresses the important question of how to evaluate entity search systems build on top of these approaches.

The thesis describes very well the research that has been carried out. The manuscript presents a coherent story and well connects different chapters with conclusions that motivate the work presented in the following. The early chapters present a very good introduction of the field and serve as an excellent motivation of the research work carried on by Dr Tonon.

What I appreciate in particular about the thesis manuscript is that the candidate has used both scientifically sound approaches as well as made an effort to adopt industrial-level systems with potential for future commercialization of the developed methodologies.

In terms of originality, the dissertation proposes novel techniques to create value out of knowledge graphs for end users on the web. As compared to previous work, the thesis significantly advances the state of the art by combining approaches designed for structured and unstructured data together creating novel end-user search and exploration experiences.

The overall work is of high quality, uses a sound scientific approach (e.g., Chapter 3) and shows a vision for future research (e.g., Chapter 8). The scientific results are valid and show the potential of knowledge graph techniques for next-generation information access systems.

For this reason, I propose that the dissertation should be awarded the 2018 SWSA Distinguished Dissertation Award.

Yours faithfully

Dr Gianluca Demartini

Senior Lecturer in Data Science

The University of Queensland, Australia