



DISI, University of Trento, Italy



India-Trento Programme for Advanced Research



DRTC, ISI Institute, Bangalore, India

4th Knowledge in Diversity Workshop

Trento, 29-30 March 2017

Room Ofek, Department of Computer Science, Povo, Trento, Italy

The aim of the workshop is to bring together professionals and practitioners from academic, business, and government communities from all over the world, who are interested in exploring how diversity affects data and knowledge, and discuss about applications, supporting methodologies, and tools.

The event is the follow-up of the first three editions held in Bangalore and Trento in the context of the ITPAR project between Italy and India. The initiative is now attracting attention from a growing number of institutions world-wide. It is co-funded by the ITPAR project (Italy-India) and the *Computer Science Department (DISI)* of the *University of Trento* (Italy).

WEDNESDAY 29 MARCH

- 08:30 – 09:00** Registration desk (come to take your badge)
09:00 – 09:45 Welcome, Round-Table Introductions, Objectives, and Agenda
(Fausto Giunchiglia / UniTN, ARD Prasad / Indian Statistical Institute)

SESSION 1: LEXICAL SEMANTICS (Chair: Gábor Bella)

- 09:50 – 10:10** Collaborative Translation of Lexico-Semantic Resources (Mercedes Huertas / UniTN)
10:10 – 10:30 Demos: the Lexical Translation Tool and KiDF Websites
(Mercedes Huertas, Olga Fedoseeva / UniTN)

10:30 – 10:50 **Coffee Break**

- 10:50 – 11:10** Understanding and Exploiting Lexical Diversity (Khuyagbaatar Batsuren / UniTN)
11:10 – 11:30 Improving Lexical Knowledge via Gamification (Hanyu Zhang / UniTN)
11:30 – 12:30 Case Studies on Languages (15' each):
Amharic (Zewdu Melkamu Mogesse / UniTN)
Malayalam (Nandu Nair / UniTN)
Mongolian (Amarsanaa Ganbold / National University of Mongolia)
Scottish Gaelic (Fiona McNeill / Heriot-Watt University)

12:30 – 14:00 **Lunch**

SESSION 2: FROM NATURAL TO FORMAL LANGUAGE (Chair: Subhashis Das)

- 14:00 – 14:20** Upper Ontology Universality Assumption in an African Multilingualism Context
(Sunday Olusegun Ojo / Tshwane University of Technology)
14:20 – 14:40 Developing Classifications for Digital University (Enzo Maltese / UniTN)
14:40 – 15:00 Demo: the Etype Modeller (Alessio Zamboni / UniTN)
15:00 – 15:20 A context sensitive approach to Query Analysis (ARD Prasad / Indian Statistical Institute)
15:20 – 16:00 **Coffee Break**

SESSION 3: SEMANTIC MATCHING (Chair: Fiona McNeill)

16:00 – 16:20 Schema Matching and Provenance (Fiona McNeill / Heriot-Watt University)

16:20 – 16:40 Cross-Lingual Semantic Matching (Gábor Bella / UniTN)

16:40 – 17:00 Extending WordNet with Emergency Response Domain Terms
(Francisco Quesada / Heriot-Watt University)

17:00 – 17:20 Demo: Domain Aware Semantic Matching using Diversicon
(David Leoni / Heriot-Watt University)

17:20 – 17:40 **Group Photo**

THURSDAY 30 MARCH

08:30 – 09:00 Registration desk (come to take your badge)

SESSION 4: MULTILINGUAL NATURAL LANGUAGE PROCESSING (Chair: Altangerel Chagnaa)

09:00 – 09:20 Collaborative Development of the SCROLL NLP Framework (Gábor Bella / UniTN)

09:20 – 10:20 Multilingual NLP Development (15' each):

Mongolian (Altangerel Chagnaa / National University of Mongolia)

German (Hakim Freihat / UniTN)

Arabic (Hakim Freihat / UniTN)

Chinese (Hanyu Zhang / UniTN)

10:20 – 10:40 **Coffee Break**

10:40 – 11:20 **Use Cases: Vision (Fausto Giunchiglia / UniTN)**

SESSION 5: USE CASES: DIGITAL UNIVERSITY, HEALTHCARE DATA (Chair: Enzo Maltese)

11:20 – 11:40 Digital University in Trento: Work Done and Next Steps (Enzo Maltese / UniTN)

11:40 – 12:00 Digital University in Trento: Demo (Enzo Maltese / UniTN)

12:00 – 12:20 An Integration Engine for South African Health Information Systems Interoperability
(Gorgina Moape / Tshwane University of Technology)

12:20 – 14:00 **Lunch**

SESSION 6: USE CASES: HEALTHCARE DATA, SMART CITIES (Chair: Mattia Zeni)

14:00 – 14:20 Healthcare Data: a Case Study (Gábor Bella / UniTN)

14:20 – 14:40 Smart Cities: the QROWD Project (Paolo Poppi / Municipality of Trento)

14:40 – 15:00 Smart Cities: Data Modelling (Subhashis Das / UniTN)

15:00 – 15:20 Smart Cities: Big Data Analytics (Mattia Zeni / UniTN)

15:20 – 15:40 **Coffee Break**

15:40 – 16:30 Next Steps: Opportunities and Collaborations

20:00 – 22:30 **Social Dinner in Levico**