

Integrating Sina Institute into the European Research Area





Towards Multilingual and Multi-cultural knowledge Sharing Technologies

About SIERA

SIERA is an EU FP7 funded project in the field of multilingual and multi-cultural knowledge sharing technologies. The idea of SIERA emerged as a response to the rapid growth of cross-border markets and global concerns which is generating a huge demand to facilitate knowledge sharing between societies, since the diversity of languages, cultures, and standards are the main barriers to sharing and consuming knowledge.

> FP7-INCO-2011-6 Project Number: 295006 Project Duration: 36 Month

Objectives

- Reinforce closer and sustainable scientific cooperation between Palestinian and EU scientists in the field of multillingual and multicultural knowledge sharing technologies.
- O Sina institute will twin with four leading European research institutions to:
 - → Widen the R&D strategy of Sina Institute.
 - → Set up joint research and cooperation.
 - → Facilitate PhD student's co-supervision.
 - → Organize joint summer courses.
 - → Build competency and facilitate the participation of Sina Institute in FP7.
 - → Increase the visibility and impact of Sina Institute at the regional and international levels.

Thematic Research Area

The results of the project will be tested in two domains:

• Cultural Heritage:

Large set of Palestinain and Arabic digital content will be integrated with MICHAEL, which is a large EU portal of digital collections from museums, archives, and libraries across Europe. MICHAEL will be also extended to support Arabic content, search, and retrieval.

• Environment and Ecology:

A multilingual wiki-portal, KYOTO, will be also extended to support Arabic language and content.

Extending both portals to support Arabic content and semantic search is a challenging task due to the complexity of the language, and as the Arabic content needs to be semantically interlinked with EU content.

Project Activities

Workpackage 1: Research Strategy:

- Assess society needs.
- Revise Sina's research and development strategy.

Workpackage 2: Networking and Research Setup:

- Facilitate co-supervision of PhD students.
- Set up joint research and cooperation, in which the following will be accomplished:
 - → A framework for mapping WordNet and Arabic Ontology based on OntoTerminology formal principles and tools.
 - → MICHAEL's multilingual thesaurus extension with Arabic concepts.
 - → KYOTO's ontology extension with Arabic.
 - → Application of Sina's Arabic processing APIs on multilingual portals.
 - → OKKAM extension with Arabic names and entities.
- Encourage co-authoring scientific articles.

Workpackage 3: Capacity Building in FP7:

- Organize proposals writing workshops.
- Write two FP7 proposals.

Workpackage 4: Dissemination and Exchange of Knowledge:

- Organize joint summer courses.
- Organize society-oriented/industrial conference.
- Organize international scientific conference.

Workpackage 5: Project Management and Quality Control.



Sina Institute, at Birzeit University, Palestine

- * Prof. Adnan Yahya



Universidade Nova de Lisboa, Portugal

- Page: http://www.unl.pt/
 * Prof. Christophe Roche
- * Prof. Rute Costa



Berlin-Brandenburg Academy of Sciences, Germany

- Page: http://www.bbaw.de/
- * Prof. Christiane Felbaum



University of Trento, Italy

Dept of Information Eng. and Computer Science Page: http://www.dit.unitn.it/

* Prof. Paolo Bouquet



University of Milano-Bicocca, Italy

Page: http://www.unimib.it/

- * Prof. Carlo Batini
- * Dr. Gianluigi Viscusi
- * Prof. Matteo Palmonari
- * Dr. Andrea Maurino