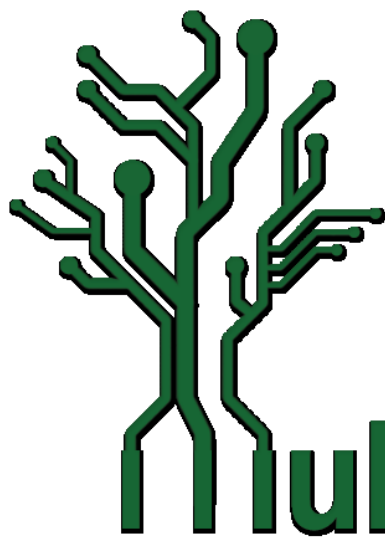


Mining and Understanding of multilingual content for Intelligent Sentiment Enriched context and Social Oriented interpretation



Multisensor

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Information Technologies Institute
Centre for Research and Technology Hellas

MULTISENSOR in fp7

- ICT Call 10 (FP7-ICT-2013-10)
 - Challenge 4: Technologies for Digital Content and Languages
 - Objective ICT-2013.4.1(a) Content analytics and language technologies
- MULTISENSOR
 - STREP
 - 9 partners from Europe (Greece, Spain, Germany, Belgium, Bulgaria)
 - Coordinated by Information Technologies Institute, Centre for Research and Technology Hellas (CERTH)
 - Budget ~ 4,2Mil Euros and EC funding ~ 2,95Mil Euros
 - Expected starting date: November 2013
 - Duration: 3 Years

MULTISENSOR for Society

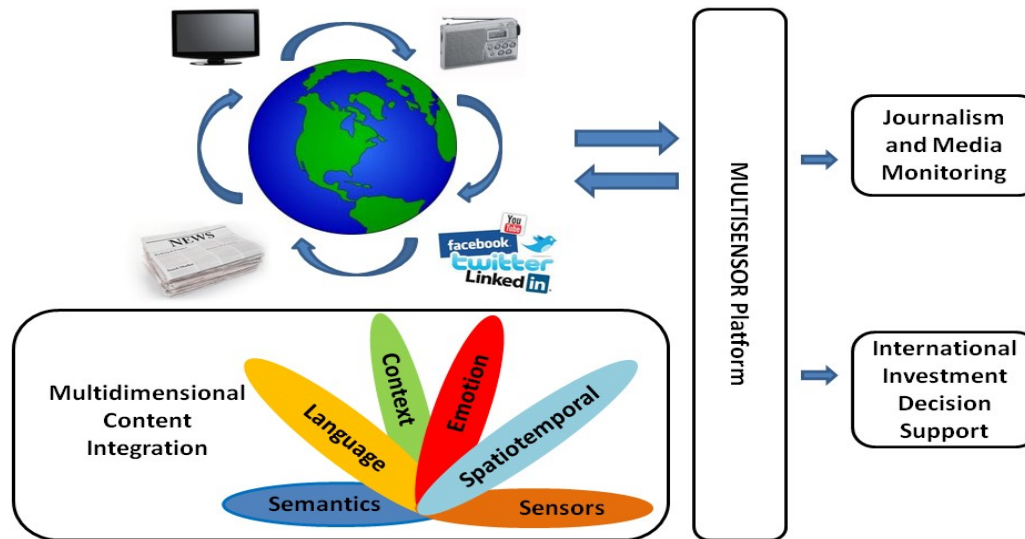
- Current Situation
 - Great increase in multilingual and multimedia content
 - Consumption of large amounts of unreliable information
 - Linguistically and geographically encapsulated areas
- Financial Crisis is a characteristic example
 - Contradictory and unreliable information causes:
 - Nervousness of politics
 - Insecurity in the population
 - Unstable ground for international investments



- There is a need for:
 - Unified access to multilingual and multicultural economic and news story material across borders
 - Sentiment, context-aware, spatiotemporal and semantic interpretation
 - Semantic integration of content and extraction of hidden meanings
 - User tailored summarisation

MULTISENSOR concept

- MUTLISENSOR envisages
 - Multidimensional Semantic Content Integration
 - To support
 - International Media monitoring
 - SME Internationalisation



MULTISENSOR Scientific Objectives

SO1. Mining and content distillation of heterogeneous multimedia and multilingual data

- Speech recognition, machine translation, name entity extraction
- Text analysis, concept extraction and linking
- Multimedia concept and event detection

SO2. User- and context-centric analysis of heterogeneous content

- Context analysis and representation
- Sentiment extraction
- Social media analysis, community detection, information propagation

SO3. Multidimensional content integration and retrieval

- Topic-based classification and topic/event detection
- Semantic content integration
- Multimodal Indexing and Retrieval

SO4. Semantic reasoning and intelligent decision support services

- Semantic representation, ontology framework
- Hybrid reasoning (multi-thread reasoning, parallel inferencing, spatiotemporal reasoning.
- Reasoning-based decision support

SO5. Multilingual summarisation and presentation of the information to the user

- Concept-driven deep summarisation
- Multilingual surface-oriented summarisation

MULTISENSOR Use Cases

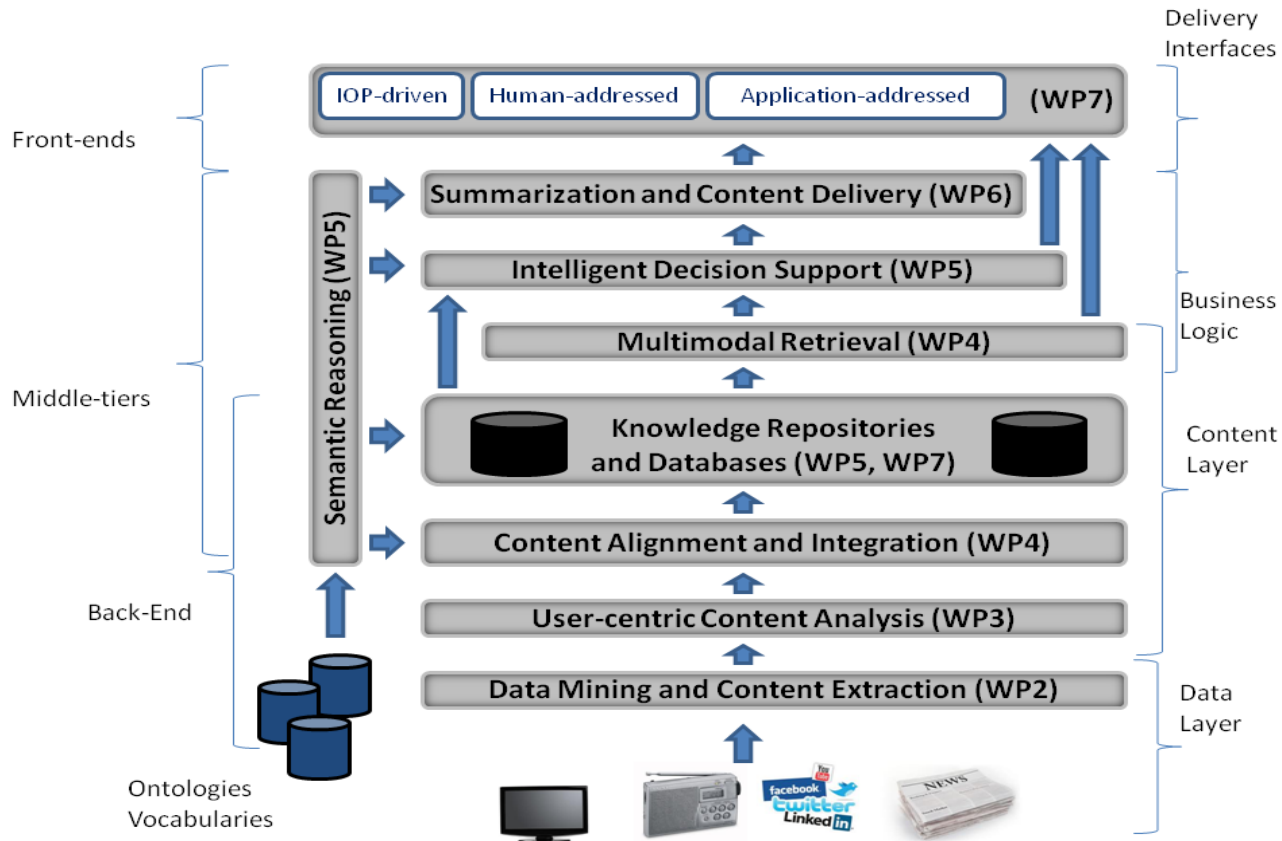
Pilot Use Case 1: International media monitoring

- Journalists need to master continuous heterogeneous data-streams (news agencies, web portals, blogs, social networks)
- Professional clients of media monitoring portals require direct access to comprehensive, targeted, business and consumer information
- Support journalists and media monitoring companies in retrieving, integrating and summarising heterogeneous information

Pilot Use Case 2: SME Internationalisation

- SMEs consider internationalisation as the main way out of this crisis
- SME internationalisation requires to retrieve spending habits of consumers, economic fundamentals of the countries, consumer behaviour, etc.
- Support SMEs to internationalise

MULTISENSOR Architecture



MULTISENSOR Consortium



Centre for Research and Technology Hellas (CERTH)

- Project Coordinator (Ioannis Kompatsiaris)
- Scientific Manager (Stefanos Vrochidis)
- Multimedia analysis and retrieval, Semantic content integration



Universitat Pompeu Fabra (UPF)

- Summarisation, text generation, concept extraction from text



Fundacio Barcelona Media – Yahoo! Research (BM-Y!)

- Social media analysis, context and sentiment extraction



LINGUATEC (LT)

- Speech recognition, machine translation, name entity extraction

MULTISENSOR Consortium



Everis

- Technical Manager (Enric Staromiejski Torregrosa)
- System development and integration



Pressrelations (PR)

- Media monitoring company, content provider
- Use case creation, evaluation, system development, exploitation



Ontotext

- Semantic representation, reasoning, decision support (WP5)



Deutsche Welle (DW)

- Content provider, user case creation, evaluation, dissemination



PIMEC

- Organisation of SMEs
- Use case creation, evaluation, dissemination, exploitation

MULTISENSOR Impact

- Impact on Enterprises and especially on SMEs
 - High SME participation including PIMEC
 - Technology take up by SMEs and larger enterprises
 - Services to be used by SMEs (internationalisation support)
- Improvements on Language Technologies
 - Advancements in speech recognition, concept extraction and linking
 - Indirect advancements in MT by providing deep semantic speech and text analysis
 - Advancements in text generation and summarisation techniques
 - Application of Language Technologies for content aggregation, sentiment and context extraction
- Impact on Language Technologies Market
 - Bring closer LT and multimedia analysis domains
 - Open source tools
 - Novel techniques published
 - Freeware tools
 - Commercial Tools
 - New and improved services using LT (SME internationalization tools, media monitoring, journalism)

MULTISENSOR & LT community

- MULTISENSOR partners are active members of the LT community (Linguatec, UPF (TALN group))
- MULTISENSOR is interested in:
 - Following the advancements in LT domain
 - Sharing developed techniques and resources during and after the project
 - Closely cooperating with projects in the area that have similar objectives (exchange information, organize and participate in common events)
 - Reusing and advancing the outcome of LT projects that fit in the LT tasks of the workplan
 - Participating in LT events to disseminate results and establish cooperations

Thank you!

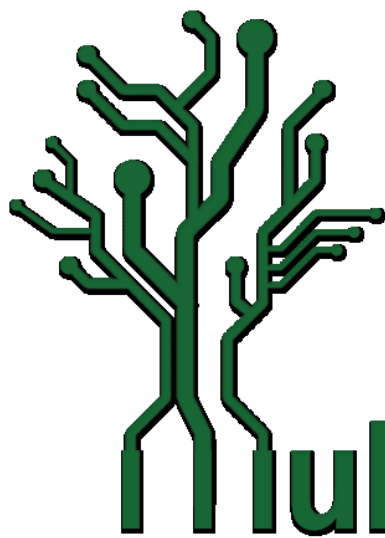
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