UniteEurope – Social media analytics for migrant integration

UniteEurope is an EU-FP7 research project lasting from 2011 through September 2014, aiming at supporting local decision makers and pan-European organisations in the realm of migrant integration. The international consortium consists of integration and public administration experts, IT specialists, software developers, municipalities and NGOs from Austria, Sweden, the Netherlands and Germany. UniteEurope is developing a software for policy makers and NGOs that analyses public social media content on city level addressing issues on migrant integration. The city related information is presented with graphs and intuitive visualisations.

UniteEurope Fact Box

Duration: October 2011 – September 2014
Program: Small or medium-scaled research projects (STREP)
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UniteEurope Tool – Analyse social media content to find out migrant integration topics discussed in your city

The UniteEurope tool for social media analytics is working! Ten modules were implemented which support policy makers, NGOs, representatives of migrant communities, and scientists in the fields of integration, public policy and administration, eGovernment, communication sciences and ICT to analyse publicly spread and discussed integration topics in the internet. The system as a service implementation offers scalable and flexible social media monitoring and a stable architecture to handle mass data streams.

The Integration Monitor supports searches for migrant integration terms and offers a variety of search filters and statistical representations of results. Results can be filtered by cities, language, source types (e.g. blogs, forums, etc.), stream types (e.g. twitter, facebook, etc.), and integration areas (e.g. spatial, legal-political, etc.). Results are illustrated in tag clouds, pie charts and diagrams to make comparisons and decisions easier.

Comparative Analytics (C-Analytics) delivers sophisticated comparisons of integration related content identified in social media. C-Analytics supports the comparison of results between countries and languages. It comparatively visualises results.

Live search supports the execution of real-time queries. With live search you can filter results by source types such as twitter, facebook, Google+, etc.


UniteEurope tool: http://ww2.uniteeurope.org/
Results of the 3rd year – Achievements, milestones and deliverables

Achievements of the UniteEurope project’s third year included the finalisation of the concept designs of the UniteEurope modules and the finalisation of the software implementation. In the final project year focus was also put on performance tests, bug identification and fixing, as well as on usability studies.

The main tasks that were performed in the final year were:

**Concept design achievements:**
- Finalisation of the interface designs and dashboard
- Finalisation of the technical requirements and functionality specifications
- Finalisation of the conceptualization work

**Software implementation achievements:**
- Final implementation of the integration issue grid model
- Final implementation of the social media sources and data streams
- Final implementation of applications and functionalities
- Final implementation of templates, dashboards, and visualizations
- Conduction and evaluation of performance tests

**End-user involvement achievements:**
- Involvement of potential end-users in the finalisation of the UniteEurope modules by means of usability tests and the adaptation of the according to the feedback
- Elaboration of a user manual and illustrative screen cast tutorials that offer guidance to the end-users for using the UniteEurope tool

**Dissemination and exploitation achievements:**
- Successful UniteEurope Symposium Berlin 2014 (read more in the newsletter section “UniteEurope Symposium in Berlin”)
- Scientific publications and presentations (read more in the newsletter section “Publications”)

Public deliverables of the third year can be accessed at:
http://www.uniteeurope.org/deliverables
Looking back at the past three years – Project results

Since the start of the UniteEurope project in September 2011 the project consortium has worked together as a team on high-quality scientific and technological contributions that go beyond state of the art:

City administration analyses and research studies: Different cities (such as Malmö, Rotterdam and Berlin) were analysed (e.g. according to their general political administrative framework conditions, the administrative structure, organisational setting and actors, administrative workflows, technical systems, policy history, policy settings, policy goals, and policy measures) in order to offer a detailed insight into the institutional settings of the potential future users of the UniteEurope tool. Further, pan-European stakeholders (such as governmental organisations, international governmental organisations, non-governmental organisations and research centres and universities) that were active in migrant integration issues and therefore were considered as potential future users of UniteEurope were analysed and categorised according to their main fields of activities. In addition, analyses of Social Media Analytics Tools (SMAT) were performed to identify and learn from already available best practices.

Integration issues and grid model elaboration: In the UniteEurope project, one of the main contributions is the elaboration of the theoretically founded and scientifically validated integration grid model. The integration grid model specifies five layers: integration areas (layer 1), multilingual semantic keywords (layer 2), social media sources (layer 3), parameters, indicators, and alerts (layer 4), as well as integration measures (layer 5). Layer 1, which defines integration areas (such as the spatial, legal-political, socio-cultural and socio-economic area), can be considered as a taxonomy to classify different types of migrant integration issues. The integration grid model represents the heart of the implemented UniteEurope tool.

Concept design and requirements engineering: Conceptualisation work was performed for the UniteEurope tool and included the specification of the framework architecture, user and right management, use cases, interface designs and dashboard mock-ups, technical requirements and functionalities. Users were categorized into the three different user groups “tool users”, “data management system (DMS) users”, and “research institutions” as all of these three groups required specific functionalities and access rights. Use cases were elaborated for
each user group. For example, tool users should be able to log into their accounts, specify the tool language, set their accounts, and access the module overview. The concept and requirements engineering built the foundation for the programming activities.

Software development and implementation: The UniteEurope tool was prototypically developed as a Software as a Service (SaaS) on the basis of a detailed technical framework which included a development server and third-party software tools (such as Hadoop, HBase, Solr and Lily) which the UniteEurope web crawler is based on. The web crawler – which represents the backend of UniteEurope - aims at reading source definitions from the Data Management System (DMS) and downloads the most recent posts from the internet. Keyword lists in the DMS are used to determine which integration areas fit to the identified posts. The keyword lists thus guarantee a sophisticated selection of posts that are strongly related to the migrant integration theme.

Demonstration and end-user tests: To ensure the usability and usefulness of the UniteEurope tool modules, an intensive customization, demonstration and testing phase was performed in the final year. Usability tests were performed with potential end users of UniteEurope. Results reflected a positive perception of UniteEurope’s usability and the participants’ feedback on bugs was used to further improve the tool.
Symposium in Berlin 2014

The UniteEurope Symposium Berlin 2014 on Social Media Analytics for Migrant Integration successfully took place on the 4th June 2014 in Berlin, Germany. The highlights of the symposium were the keynote speech of Dr. Peter Scholten, author of the book "Framing immigrant integration – Dutch research-policy dialogues in comparative perspective" and Dr. Philip Müller, author of the book "Machiavelli.net – Strategien für unsere offene Welt". The end user partners City of Rotterdam – represented by Ronald Derks, LLM MCA, Policy Advisor European and International Affairs for the Department of Social Development – and ZARA Zivilcourage and Antirassismus Arbeit – represented by Claudia Schäfer, MAS managing director of ZARA – presented concrete and real examples of use of UniteEurope. Finally, all participants could learn more and try out the UniteEurope tool in personal sessions with our consortium partners.
Read more about the symposium: [http://www.uniteeurope.org/symposium](http://www.uniteeurope.org/symposium)

Publications on UniteEurope

We could successfully publish scientific papers in high-quality outlets in the final period of the UniteEurope project such as the following:


More publications, conference and seminar presentations: [http://www.uniteeurope.org/downloads](http://www.uniteeurope.org/downloads)
Upcoming tasks and events

Final tasks in 2014

The upcoming and at the same time final tasks in the UniteEurope project until September 2014 are:

- Elaboration of instruction and training material
- Final project documentation and reports

Final events in 2014

The final meeting of the UniteEurope consortium will take place in September 2014 in Vienna, Austria.

A third and final evaluation meeting of the UniteEurope project will take place in November 2014 in Brussels, Belgium.

Website – New Design

UniteEurope Online

For further information and regular updates please visit our project website in its new shape at http://www.uniteeurope.org/

UniteEurope @ Social Media

Follow UniteEurope on:
Twitter: https://twitter.com/Unite_Europe
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Write UniteEurope an eMail: info@uniteeurope.org
The Project consortium and contact details

**Project Coordinator**

INSET Research & Advisory  
Dr. Sonja Kabicher-Fuchs  
sonja.kabicher-fuchs@inset-advisory.com  
Vienna, Austria

**Technical Partners**

SYNYO GmbH  
Vienna, Austria  
**Technical Coordinator**

Imooty.eu GmbH & Co KG  
Berlin, Germany

**Universities**

Erasmus University Rotterdam  
Rotterdam, Netherlands  
Malmö University  
Malmö, Sweden  
University of Potsdam  
Potsdam, Germany

**User partners**

City of Rotterdam (Gemeente Rotterdam),  
Netherlands  
City of Malmö (Malmö Stad), Sweden  
ZARA – Zivilcourage und Anti-Rassismus-Arbeit  
Vienna, Austria

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