

MULTISENSOR

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

FP7-610411

D9.5

Report on standardisation, dissemination and User Group activities v2

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Abstract

The objective of this document is to report on standardisation, dissemination and the User Group activities related to MULTISENSOR that have taken place during the first 24 months of the project.

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Executive Summary

This document presents the various standardisation, dissemination and User Group activities carried out by the MULTISENSOR project during the initial two years of the project as well as activities foreseen for the future. The document highlights the evolution of the dissemination actions comparing the first two years of the project.

Firstly, it presents the updated dissemination material including press releases, newsletters and social networks, in which MULTISENSOR is present and some information on them. Secondly, the deliverable describes the dissemination strategies focusing on events and products, specifically the scientific and commercial events targeted for participation, as well as scientific journals for articles publications. In addition, a calendar view is provided with the most important and already scheduled events. Thirdly, it reports activity of the User Group together with the actions to be taken and it provides a list of the participants of the User Group as well as their role in the project. Finally, the deliverable explains the standardisation activities.

Abbreviations and Acronyms

ANSI	American National Standards Institute
BM-Y!	Fundacio Barcelona Media
CERTH	Centre for Research and Technology Hellas
DC	Dublin Core
DoW	Description of Work
DW	Deutsche Welle
DySCO	Dynamic Social COntainer
EDOAL	Expressive and Declarative Ontology Alignment Language
ICT	Information and Communications Technology
IFTTT	If This Then That
IP	Internet Protocol
JSON	JavaScript Object Notation
LT	Linguatec
MPEG	Moving Picture Experts Group
NDA	Non-Disclosure Agreements
NERD	Named Entity Recognition and Disambiguation
NIF	NLP Interchange Format
NISO	National Information Standards Organisation
ONTO	Ontotext AD
OWL	Web Ontology Language
PR	pressrelations
RDF	Resource Description Framework
SIMMO	Socially Interconnected and Multimedia-Enriched Object
SME	Small and Medium Enterprises
SPARQL	SPARQL Protocol and RDF Query Language
UPF	Universitat Pompeu Fabra
UG	User Group
WP	Work Package

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1 INTRODUCTION

The objective of D9.5 is to present the dissemination activities and material developed during the first 24 months of the project and the future dissemination plans, as well as the User Group and the standardisation activities. Specifically, it focuses on the dissemination actions of the second year of the project and the plan for the future. The target readers of the documents are those interested in the MULTISENSOR platform, especially journalists, media monitoring stakeholders, SMEs and export managers.

In this context, the deliverable presents the current dissemination material and provides an insight into the web presence of the project by reporting the web traffic and the social media interactions. It also reports the events and the cluster activities that the consortium participated in during the last 24 months and presents the targets for the next year. D9.5 also includes an update of the User Group (UG) activities and outlines the plan for actively involving the UG members during the rest of the project. Finally, the deliverable presents in detail the standardisation activities that took place during the first two years.

2 DISSEMINATION MATERIAL

The dissemination material includes the following instruments:

- Communication kit including a flyer, a poster, an invitation for the User Day and an overview presentation
- Fact sheet
- Project web presence
- Press releases
- Newsletters
- Social networks

The initial versions of the first two instruments have already been presented in D9.1_v2, excepting the invitation, but will be updated during the project progress. In this project stage we present a poster that demonstrates the recent research and technological developments. In addition, we provide an update with respect to the project presence in the web and in social media, as well as the press releases and the newsletters issued by the MULTISENSOR partners.

2.1 Project poster

In Figure 1 we present the updated project poster, which was presented in Riga Summit 2015¹.

¹<http://rigasummit2015.eu/>.



MULTISENSOR

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

<http://www.multisensorproject.eu/>

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Overview

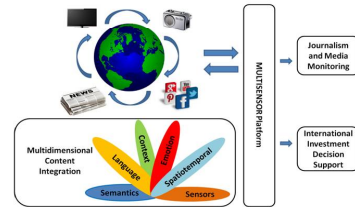
MULTISENSOR envisages:

- ⇒ Multidimensional Content Integration by considering the following dimensions:
 - Language, multimedia, semantics, context, emotion, time & location

- ⇒ Development of a platform for content integration from several sources

Challenges

- ⇒ Data are multimodal, unstructured and contain duplicate/complementary information
- ⇒ Vast amount of user generated content (social media, blogs)



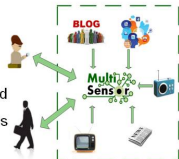
Use Cases

Use Case 1

Users

- ⇒ Journalists

Support in analysis, retrieval and summarisation of heterogeneous and multilingual information

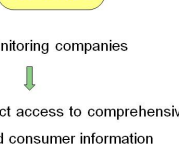


Use Case 2

Users

- ⇒ Media monitoring companies

Require direct access to comprehensive business and consumer information



Use Case 3

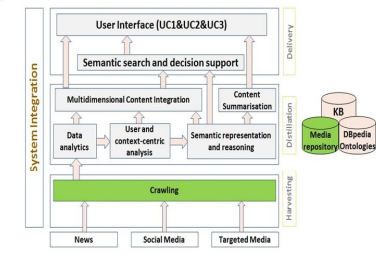
Users

- ⇒ Small and Medium Enterprises

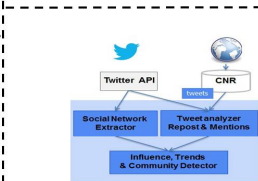
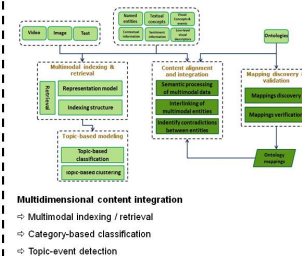
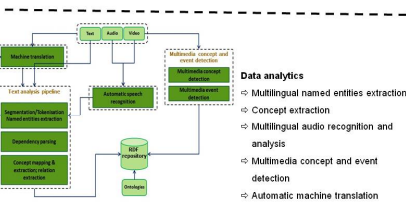
Support in internationalisation (information on consumers behaviour, competition, etc.)



Multimodal data analytics framework

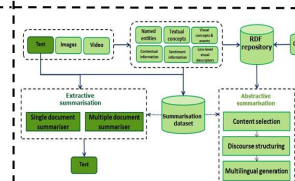
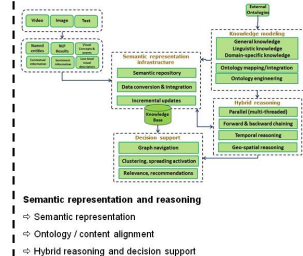


MULTISENSOR framework



User and context-centric analysis

- ⇒ Contextual features extraction
- ⇒ Polarity and sentiment extraction
- ⇒ Contributor analysis



Content summarisation

- ⇒ Extractive summarisation
- ⇒ Abstractive summarisation

Impact / Outcome

Impact

- ⇒ Strong participation of private-sector players (mainly SMEs)
- ⇒ Facilitate production of reliable information
- ⇒ Facilitate companies decision for investments in unstable ground
- ⇒ Improve European position in multilingual digital market

Outcome

- ⇒ MULTISENSOR platform
- ⇒ Modules and services for several tasks (machine translation, sentiment extraction, multimodal indexing, decision support, etc.)
- ⇒ Open-source, free and commercial modules



Figure 1: MULTISENSOR poster

In Figure 2 we present the invitation to the joint User Day MULTISENSOR – EUMSSI that will take place in Bonn the 26th November 2015. This invitation will be distributed to the User Group members as well as to professionals that can be interested in the project and its use cases. The invitation will serve as a template for invitations to be sent in future MULTISENSOR events.



We are excited to announce our first MULTISENSOR-EUMSSI USER DAY to be hosted in Bonn, Germany, on Thursday, November 26th, 2015.

DISCOVER THE LATEST DEVELOPMENTS OF MULTILINGUAL MULTIMODAL ANALYSIS TECHNOLOGIES

Take this excellent chance to experience first-hand the analysis tools – developed by these two EC-co-funded projects – to interpret, relate and summarise economic information and multimedia news items.

AGENDA

- 14:00 Welcome and General Introduction
- 14:30 Demo and Evaluation
- 17:00 Conclusion and Open Discussion
- 19:00 Party at Deutsches Museum, Bonn

Register now: www.multisensorproject.eu/events/user-day

Location Map:



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EUMSSI
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www.eumssi.eu



Figure 2: MULTISENSOR-EUMSSI User Day invitation

2.2 Project web presence

The project website as seen in Figure 3 (<http://www.multisensorproject.eu/>) was set up at the beginning of the project as the main point of attraction for everyone interested in the work done in MULTISENSOR. It keeps the current list of deliverables and reports on the project's advances such as project presentations, publications (e.g. code or papers) as well as an overview of the project's Twitter account. The website is updated regularly.

During the first year the content strategy has focused on posting general information around the project as well as information concerning the areas of research covered in the project. During the second year the project has published additional articles on a regular basis, relating to the project's different fields of research, like 'Machine Translation' or 'The general goal of multilingual research' as well as interesting links on these topics. Furthermore the projects deliverables, press releases, datasets and available code fragments have been added to the projects repository, attracting a growing audience, as can be seen in Figure .

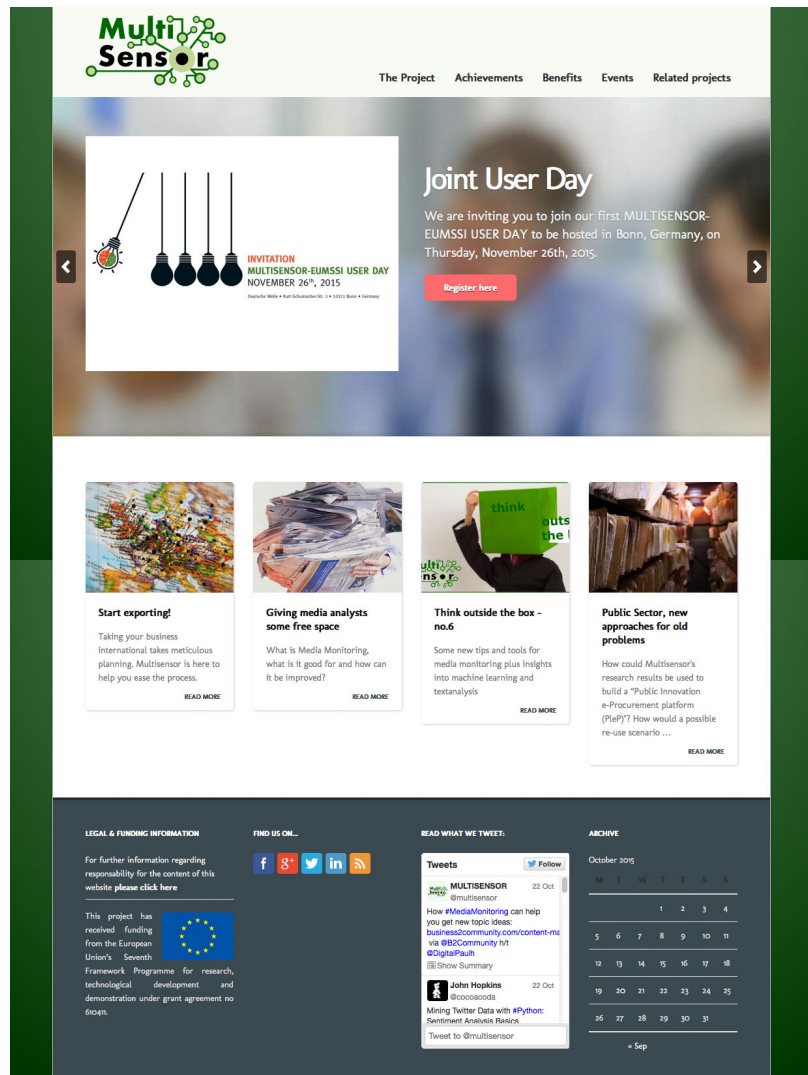


Figure 3: Homepage of the MULTISENSOR Website

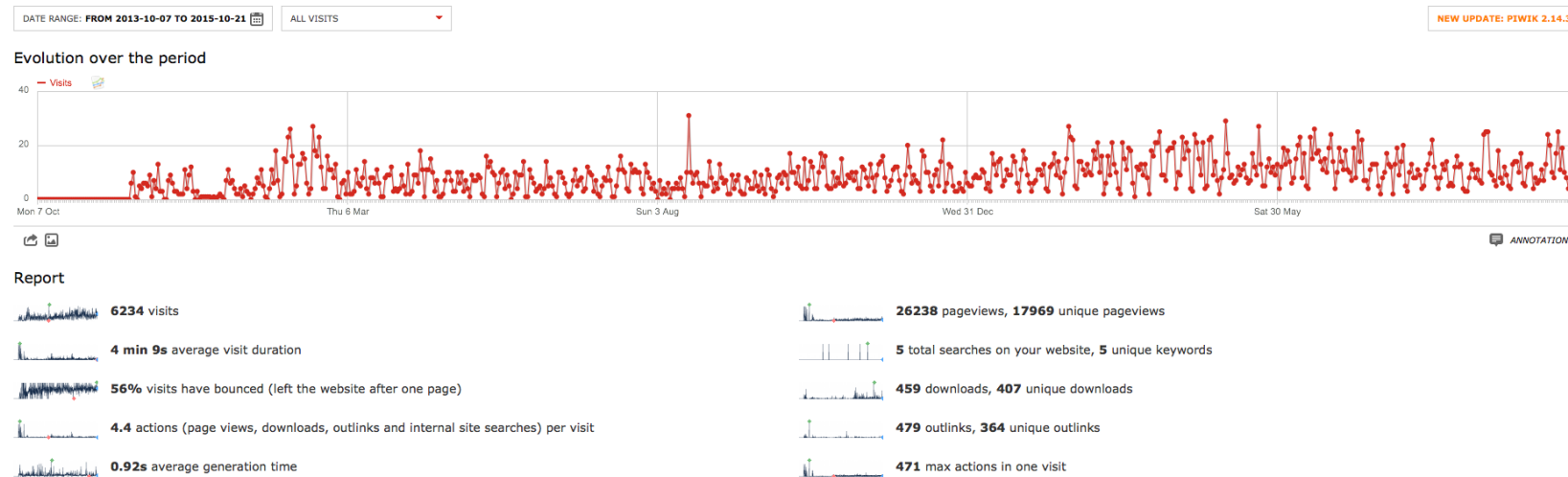


Figure 4: MULTISENSOR Website Traffic 2013 – 2015

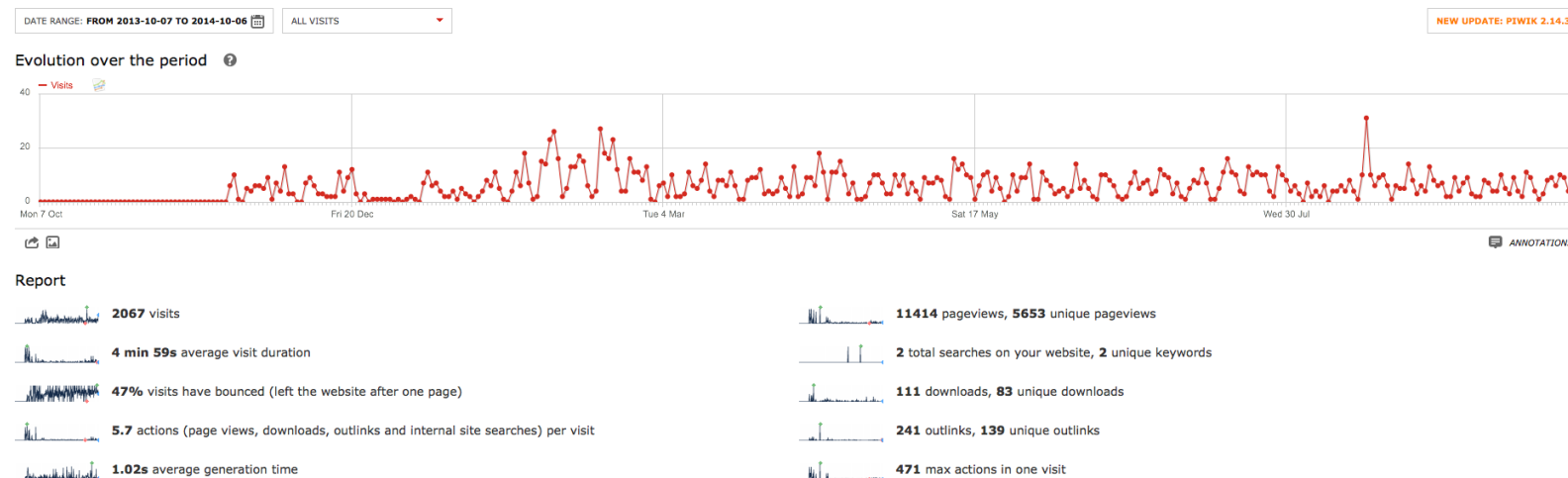


Figure 5: MULTISENSOR Website Traffic 2013/2014

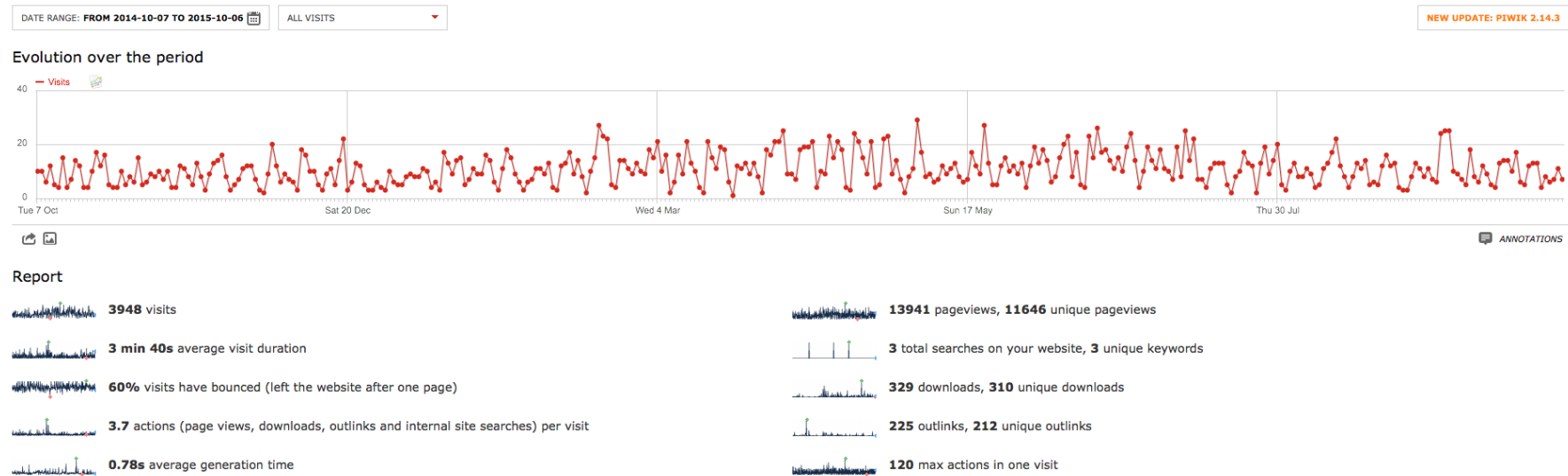


Figure 6: MULTISENSOR Website Traffic 2014/2015

The overall numbers as displayed in Figure 4 show that there was a general interest in the project from the beginning that is growing, slowly but constantly. Making a direct comparison between the figures from year 1 (Figure) and year 2 (Figure) shows this more clearly. The overall number of visitors has almost doubled (from 2067 to 3948 visits), similar to the number of unique page views (from 5653 to 11646 views). This tells us that there is a larger interest in the website than before, which is underlined as well by the growing number of downloads from the website (from 83 to 310 unique downloads). Both figures are clearly related to the broader offerings available on the website in year two.

Looking at the top pages, the ones that have been visited the most, there still seems to be a large interest in the project and the partners involved. The top three pages are still:

- The home page,
- The in-short explanation,
- The partners involved in the project.

However, in comparison to the first year there is now a larger interest in the outcomes of the project as well: The fourth most clicked page is the deliverables page (see Figure). Taking a closer look at the top 15 most clicked pages also reveals that there is now a growing interest in the outcomes of the project, as the publications, outcome pages, use cases as well as the code pages have moved up on this list.

The list also highlights areas of improvement for the third year, as the bounce rate and average time on page can still be improved for all of the above listed pages. We will try to achieve this through more direct links via our social media channels to new deliverables, publications and other materials like code and demonstrators, but also more focused articles, pointing out what the project has achieved and where to find it.

Page Titles							
PAGE NAME	PAGEVIEWS	UNIQUE PAGEVIEWS	BOUNCE RATE	AVG. TIME ON PAGE	EXIT RATE	AVG. GENERATION TIME	
Multisensor Project EU	6694	4420	53%	1 min 11s	63%	1.2s	
MULTISENSOR – in short Multisensor Project EU	1948	1271	45%	1 min 25s	39%	0.63s	
Partners Multisensor Project EU	1558	817	43%	1 min 22s	26%	0.53s	
Deliverables Multisensor Project EU	1115	707	65%	1 min 53s	33%	0.76s	
Want more Details? Multisensor Project EU	832	616	61%	1 min 22s	28%	0.73s	
Related projects Multisensor Project EU	726	576	53%	1 min 8s	36%	0.77s	
Events Multisensor Project EU	655	457	42%	54s	17%	0.7s	
Publications Multisensor Project EU	585	427	48%	1 min 40s	19%	1.07s	
Project structure Multisensor Project EU	476	395	63%	1 min 19s	15%	0.76s	
Project outcome Multisensor Project EU	513	390	74%	51s	13%	0.62s	
Use Cases Multisensor Project EU	645	390	68%	1 min 56s	29%	1.23s	
Code Multisensor Project EU	484	356	43%	1 min 4s	19%	0.63s	
Architecture Multisensor Project EU	494	332	56%	1 min 35s	20%	0.88s	
What is MULTISENSOR? Multisensor Project EU	450	323	75%	1 min 27s	30%	1.18s	
User Group Multisensor Project EU	578	319	50%	2 min 14s	27%	1.55s	
Datasets Multisensor Project EU	374	303	58%	44s	13%	0.58s	

Figure 7: Hit-list of popular pages, including number of visits and bounce rates

As for the origins of the visitors to the blog (Figure), we can see that there is still a lot of interest throughout Europe, with peaks in Germany and Spain, just as during the first year. This is not surprising as the connections that the MULTISENSOR Project partners have are mainly European. The interest also reflects the set-up of the Consortium, with several partners coming from Spain and Germany

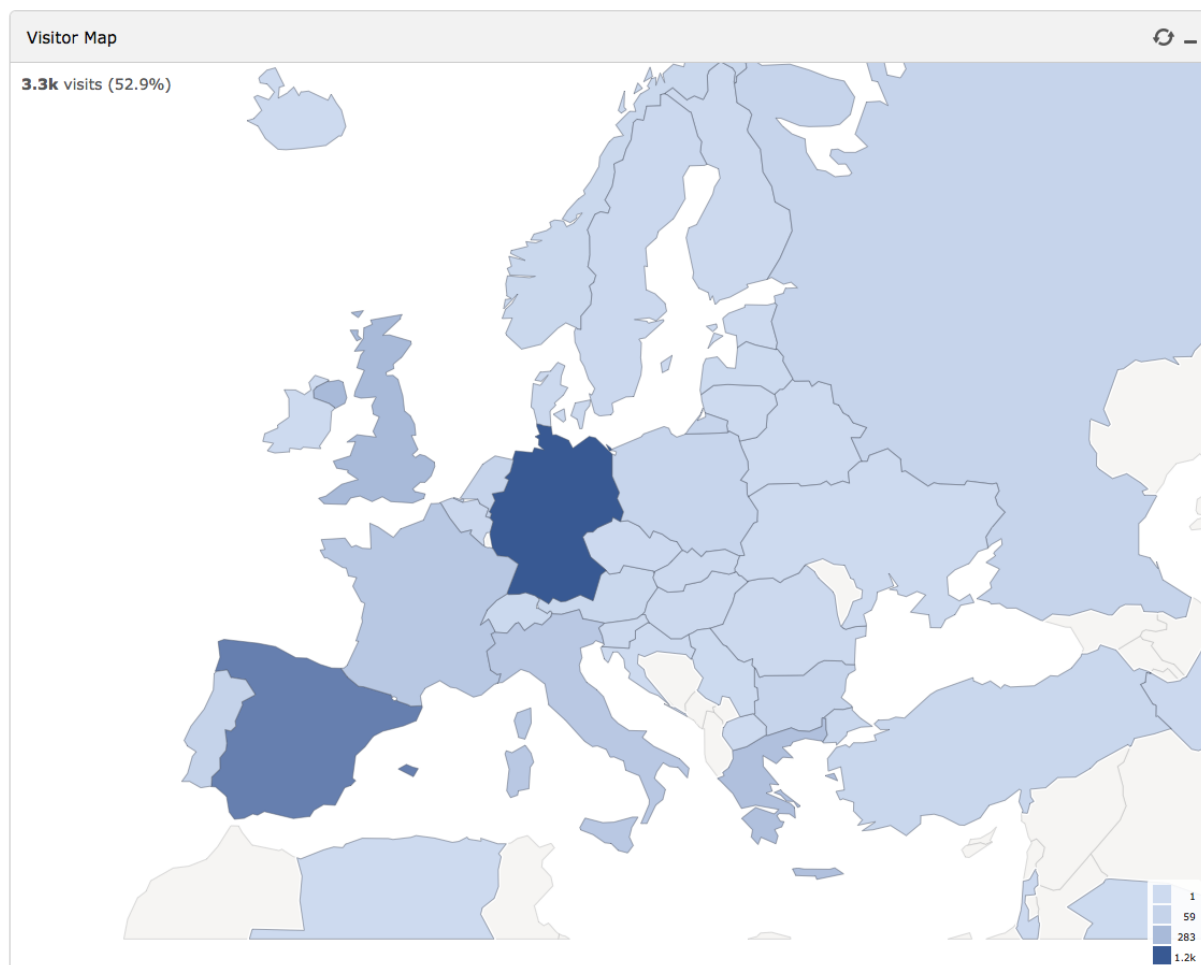


Figure 8: Distribution of visitors within Europe

Using social media channels for distribution means also that the project is reaching beyond these countries. It becomes clear when taking a look beyond Europe. During the first year, the map already showed a lot of interest from North- and South-America and beyond (see Figure 9). This was still the case in the second year as can be seen in Figure . The interest is especially strong in the U.S. (which is still leading in page visits) and Brazil. While the order of countries hasn't changed (U.S. in the lead, followed by Germany, Spain and Brazil) it is clear that there was an increase in all countries, including a few new ones that had not been on the map in the first year. This again shows that the dissemination actions are catching on and more and more people are coming to the website to read about the project.

All in all, the website has been working better in the second year, which is due to the regular posting of longer articles, but also more detailed information about the work the consortium is doing.

The challenge for the third year will now be to keep up the interest of the existing audience and furthermore broaden the audience. This should however be a little easier now that the project has more results to show. We will be concentrating at making these results visible and accessible to the audiences worldwide to further engage people interested in MULTISENSOR.

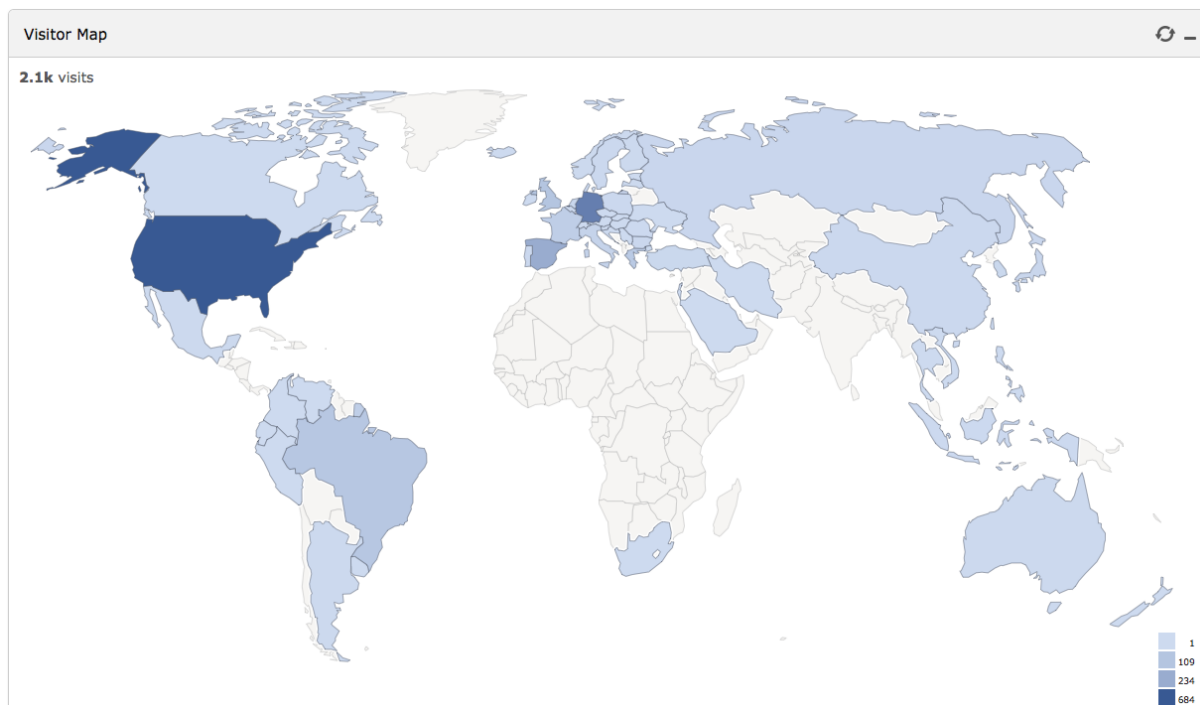


Figure 9: Distribution of visitors worldwide from 2013/2014

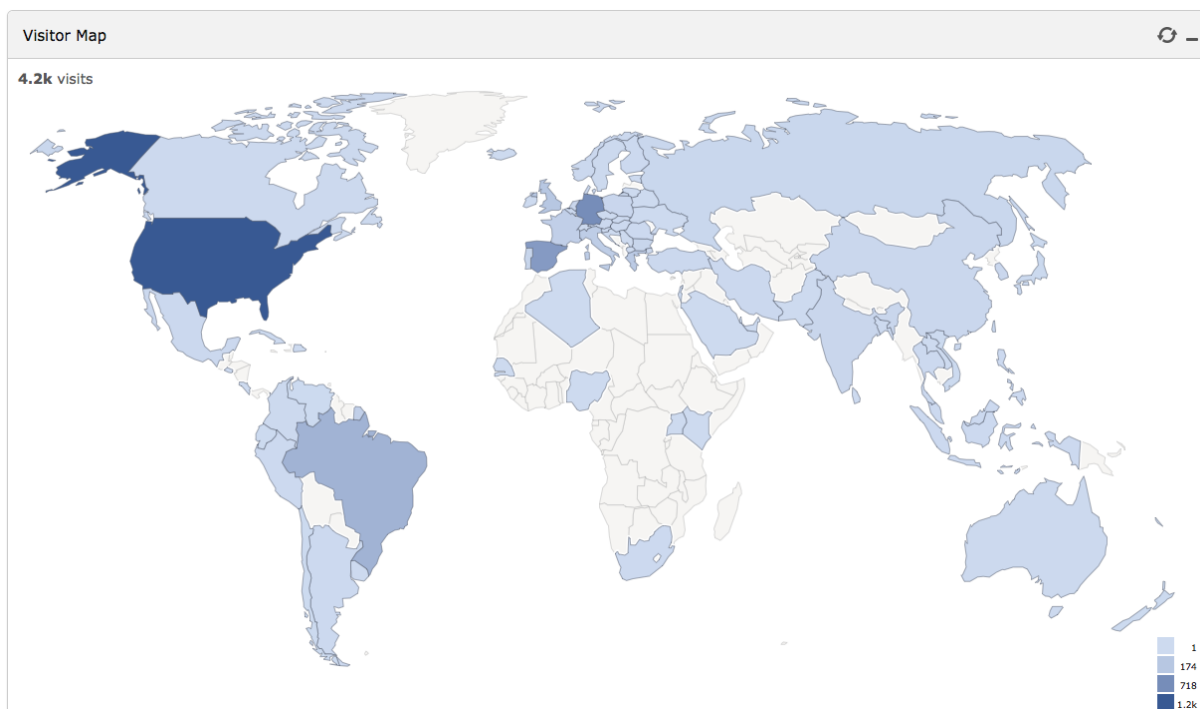


Figure 10: Distribution of visitors worldwide 2014/2015

2.3 Press releases

Two initial press releases in M1 (in Greek) and M3 (in German) were issued in the first year, reaching the target of one item per year. On July 8th 2015, pressrelations published another press release referring to the completion of the First Prototype and its evaluation. The press

release was available in German and English on the pressrelations website¹ and has been distributed through the corporate press portal. The press release was re-distributed by four other websites and re-tweeted once. All in all, PIMEC has released additional four press releases in Catalan during the first two year.

2.4 Newsletters

PIMEC, as a project partner, promotes the results of the project incorporating MULTISENSOR pieces in their weekly newsletter. During the first year, 6 newsletters were released in German and Spanish. In order to increase the target audience, the project has started also to release newsletters in English, specifically from M13of the project. In the second year of the project, PIMEC has published 5 news items on its newsletter and PR has also issued an internal newsletter.

PIMEC newsletter in 10 April 2015²

PIMEC newsletter in 15 July 2015³

PIMEC newsletter in 29 July 2015⁴

PR newsletter in 14 October 2015

PIMEC newsletter in 29 October 2015⁵

PIMEC newsletter in 29 October 2015⁶

The news items release rose in the last half a year as the external project activity increased, especially regarding the launch of the first prototype and its first evaluation, and the proximity of the first User Day of the project. In the coming months, we will issue pieces with the same frequency as in the last months, covering the state of the evaluation of the second prototype and, more importantly, the external participation through the Open Day. Newsletter coverage will continue to happen in English in order to increase industrial dissemination. Therefore, the project objective regarding newsletters is well on track.

2.5 Social networks

As already laid out in deliverable D9.3_v2, social networks are a vital part of every dissemination strategy today. MULTISENSOR is still focusing on a handful of networks and sites, distributing the information about the project in this specific circle or using them for automated dissemination.

In comparison to year one, the focus has broadened a bit, adding GitHub as a code repository to the tool set. But the focus is still very strong on Twitter and LinkedIn. This strategy has proven to be successful for our means, as we can see growing numbers on both networks. The list of channels/tools where MULTISENSOR is present now looks as follows:

Blog: <http://www.multisensorproject.eu/> (As described in Chapter 2.1)

Twitter: <https://twitter.com/multisensor>

¹ http://www.pressrelations.de/new/standard/result_main.cfm?aktion=jour_pm&comefrom=scan&r=594433

² <http://web.pimec.org/en/actualitat/noticies/first-multisensor-prototype-to-be-launched-in-april>

³ <http://web.pimec.org/en/actualitat/noticies/multisensor-s-first-prototype-evaluation>

⁴ <http://web.pimec.org/en/actualitat/noticies/multisensor-to-host-an-open-day-in-bonn>

⁵ <http://web.pimec.org/en/actualitat/noticies/pimec-hosts-a-meeting-to-further-develop-multisensor-s-use-cases>

⁶ <http://web.pimec.org/en/actualitat/noticies/come-to-the-multisensor-first-open-doors-day>

LinkedIn: <http://de.linkedin.com/in/multisensor>

IFTTT ("If This Then That") –Tool for automation of processes online (like monthly reminders etc.):
<https://ifttt.com/>

Facebook: <https://www.facebook.com/pages/Multisensor/1481238748826033>

Flickr: <https://www.flickr.com/photos/multisensor>

Slideshare: <http://de.slideshare.net/multisensor>

MULTISENSOR has been available on all these channels throughout year 2, meaning it has had at least a profile in each of these networks. The use of these channels has been slightly different for these first two years. For some networks the effort for being successful is so much larger than others and the targeted audience rather small, that they have been used only in an automated way like Facebook and LinkedIn. Other channels like the Flickr-Account and the Slideshare-Account have not been used any more, as they did not prove necessary for the dissemination.

Just as in year 1 the blog and Twitter are the two most used channels in year 2, followed by the LinkedIn profile and the Facebook page, the latter two still connected through the automated publication system, realised through IFTTT. Facebook has been receiving the same updates as Twitter while LinkedIn was used to republish the website's articles to ensure a constant stream of material on all channels and keep the workload at a manageable rate.

As the channels are all set up around the website, one number of interest is the referrals from the social networks to the website. Even though there is not much interaction and followership on Facebook, the network does serve as a link to the project website and works even better than LinkedIn. Figure 11 shows how well the different networks performed in this function in year 1 and year 2. While Twitter was and still is the biggest referrer, Facebook is following in second place. Taking into account that this comes through an automated account, this is pretty good.

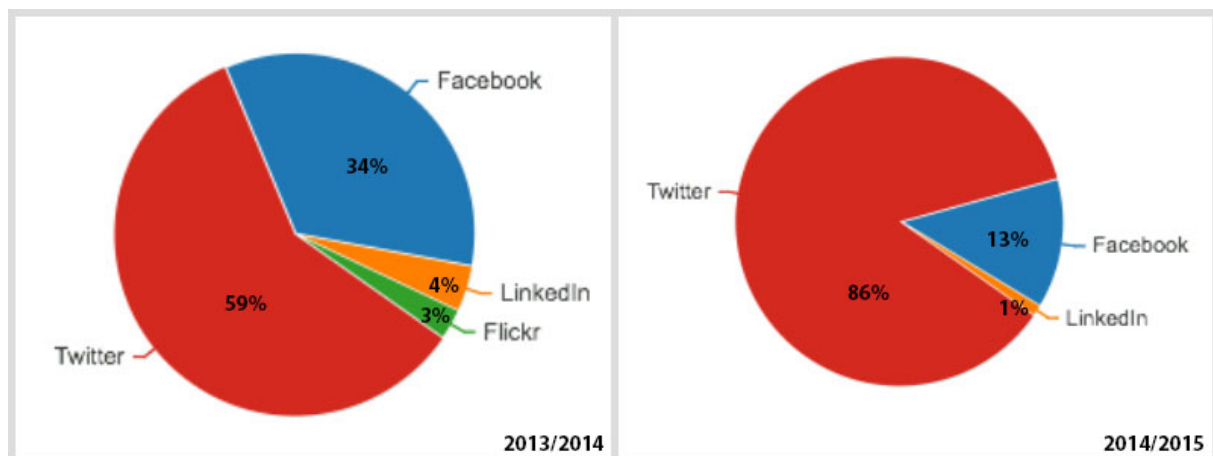


Figure 11: Referrals from social networks to the blog in year 1 and year 2

The comparison of year 1 and year 2 makes it clear that the work on Twitter is well worthwhile, bringing readers to the blog, while Facebook has lost some influence, just as LinkedIn has. The loss of Flickr as a referrer has to do with lacking interaction on this channel. For the third year this means that we will have to make some adjustments to our strategy. We will address this in the following section on the different networks respectively,

as the next steps require a few more insights into how the channels are doing each on its own.

LinkedIn

Just as in year 1, LinkedIn has worked as a professional network for MULTISENSOR. The project is using the network to connect to a very specific research audience, made up of specialists and experts in the fields of research MULTISENSOR is engaged in.

In comparison to year 1, the project has grown the number of connections through LinkedIn in year 2 (currently 72 connections), and connected with more experts (see Figure). However the growth has not been as significant as during year 1 (58 connections as per D9.3).

This might have to do with the automated connection that is used for LinkedIn to share the articles, published on the website. As LinkedIn works through interaction, it is necessary to engage more with the audience. An automated account is not as attractive to users as a personal one. This also reflects in the lower number of referrals as discussed before.

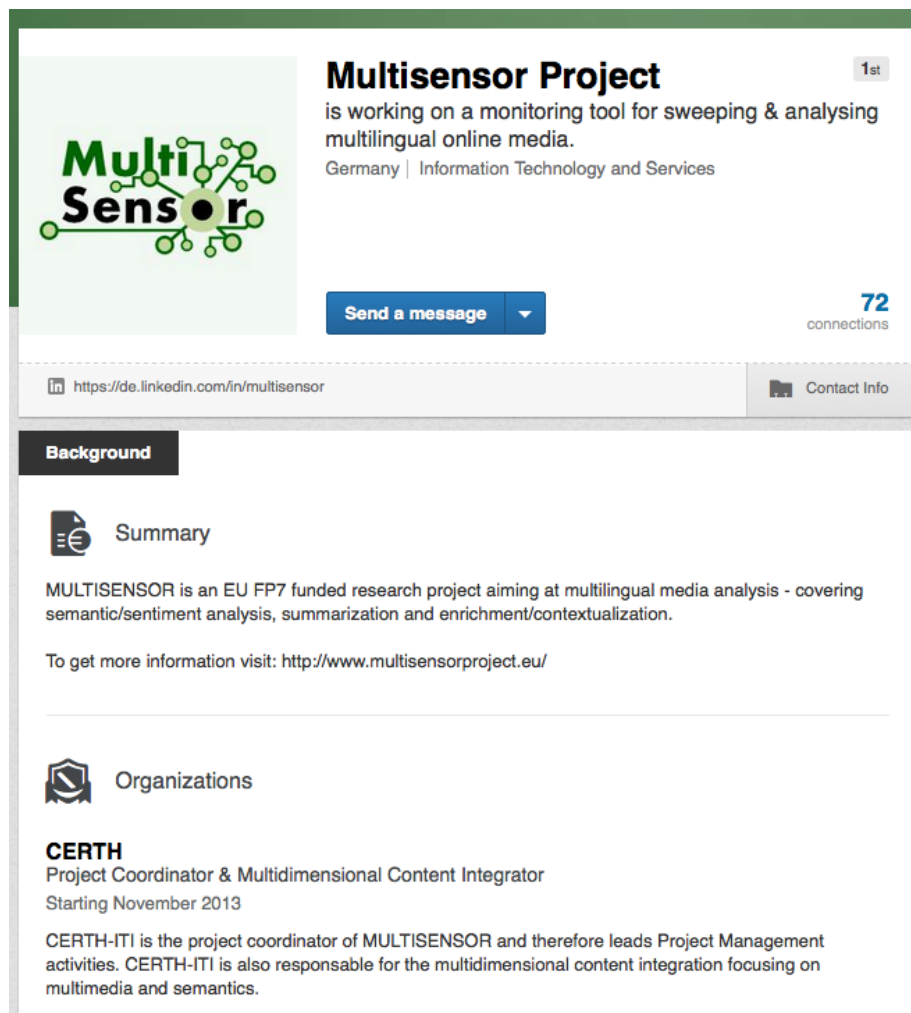


Figure 12: MULTISENSOR on LinkedIn

So for year 3, we will change this strategy by loosening the automated publication and publish the articles manually, also looking out for more interaction with the already existing connections. We thereby hope to get more feedback and attract more people.

Facebook

Facebook has also been connected through an automated link with the project's twitter account, re-sharing the information there as well. While the success during year 1 was very low, we started to see some increase in year 2. As described in previous deliverables, there are many factors that have to be taken into account when trying to reach an audience on Facebook. One factor is the different way of how Facebook publishes news to its members, another one the network structure. With the newsfeed being controlled by an algorithm that favours connections and likes, one needs a bigger network already to get more likes and therefore become more shared. On the other hand Facebook is less of a professional and more of a personal network – so the target group is not exactly the one MULTISENSOR is currently publishing for.

But the project has been able to attract some users in year 2, hence growing a little – and looking at the referrals, this has brought some users to the project website. Which is why we see use in continuing to publish on Facebook to keep on growing.

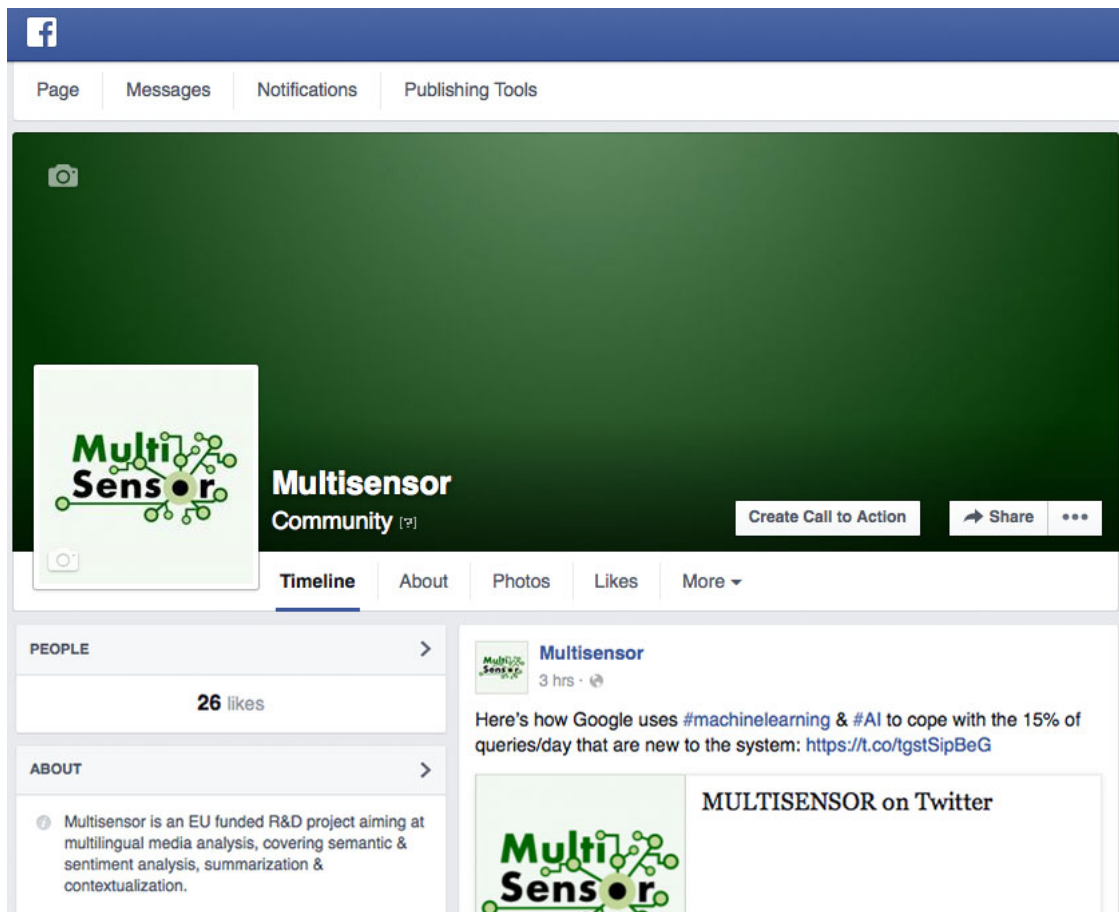


Figure 1: MULTISENSOR's Facebook profile

In order to make the Facebook page more attractive, we will also change the strategy a little bit by adding more content to the Facebook page. This is going to happen by adding another automated publishing schedule that links the article posted on the website to the Facebook profile. As community work is a lot more time consuming on Facebook than on LinkedIn or other networks, we see this way as a good balance between growing the interest and investing more work into the network.

Twitter

In comparison to LinkedIn and Facebook, the User Group on Twitter that is connecting with the project is constantly growing. Even though this growth has lost a little momentum in the second year, there is still a growing number of people interested in the project (see Figure 3).



Figure 2: MULTISENSOR on Twitter

Having had around 160 Followers at the time of the last report, the audience has now passed 190 and continues to grow. In regards to content being published on the channel in year 1 there was no change in the strategy in year 2. The Twitter channel is still used to distribute articles and examples on MULTISENSOR-related topics, always focusing on media monitoring.

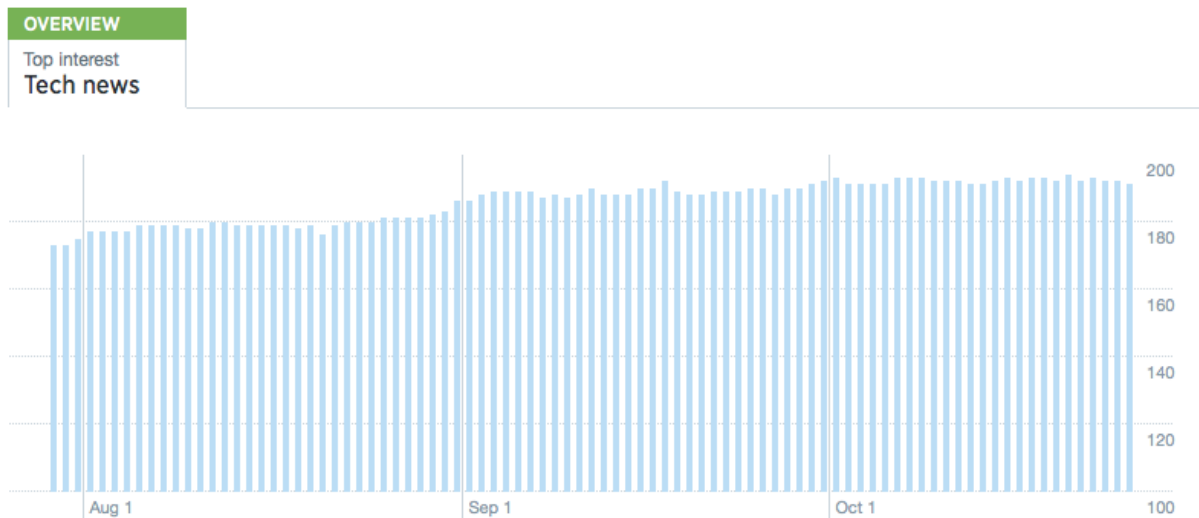


Figure 3: Follower growth on Twitter over the last 90 days

Overall we do see a constant engagement depending on the activities on the channel. We will continue this engagement, but also widen the channel's focus in year three, by using the channel to put another focus on the publications and results being produced in MULTISENSOR, hence getting even more people interested in the work we are doing.

In all, we think that the promotion of the MULTISENSOR project through social media channels has been going well in years 1 and 2, but can still be improved for the third year. As explained there is still some potential in all three of the main channels that can be tapped into to make the project and its results more well-known. We will focus our efforts in dissemination on the tasks described above to further increase these numbers and have more interactions with our audiences.

3 EVENTS AND VENUES

3.1 MULTISENSOR Workshops and Events

As planned for the whole project duration, the consortium is organising different events. These events are aimed at enhancing the project objectives, receiving constructive criticism from the users and improving the system as well as enlarging exploitation opportunities and impacts. It includes:

- **MULTISENSOR Open Door Days:** Towards the end of the project, the Consortium will organise two Open Door Days in Spain (Barcelona) and Germany (Bonn) with the goal of reaching a high number of interested parties. Specifically, the 1st Open Door Day will take place in DW premises in Bonn in M25, the 26th November 2015, where we plan to combine a User Day with an Open Door Day. The participants will have the chance to interact with the system and with the consortium. An emphasis will be also given to exploitation.
- **MULTISENSOR User Days:** At least on two occasions, seminars and tutorials will be organised for the members of the User Group (potential users) to demonstrate the MULTISENSOR prototypes, evaluate experimental techniques, have them look and comment on the results, and collect feedback for improvements. In line with the initial plan, a User Day will take place in Bonn in M25. As locations are to be decided upon according to maximum possible participation of the User Group, Bonn is considered as a proper location as two of the Use Case partners are from Germany.
- **MULTISENSOR Final Conference:** Marks the completion of the project and functions as a presentation event for the technologies developed during the project. The Final Conference will be collocated with a suitable conference or workshop.
- **Workshops, stands and demonstrations:** These will be organised by the Consortium at major commercial information-oriented and general information conferences and exhibitions (e.g. CeBIT). The aim is to inform media organisations and SMEs about the prospects of MULTISENSOR and the technologies developed. MULTISENSOR participation at such events will increase significantly towards the end of the project when there will be at least an up-and-running Beta version available. These actions will also include demonstrations to smaller audiences (e.g. potential users interested in its business) and to relevant projects. PIMEC will coordinate the demonstrations regarding the SME internationalisation, DW and PR the ones for media monitoring. Moreover, a joint workshop with the EUMSSI project was held during M16, a second one will take place in M25 of the project as a joint Open Door and User Day for both projects (arranged in Bonn at DW premises), while another common workshop is expected to take place at a later stage (M34). The first workshop was open only to the consortia of both projects, while the second and the third one will be open also to the wider research and user community. In this first workshop, a presentation of both projects took place, putting emphasis on the use cases and the evaluation, so that both consortia could get an overview of each other work in order to build synergies in the coming months.

It should be noted that user days, open days and demonstrations organised by the consortium can overlap.

3.2 International and National Events targeted

MULTISENSOR targets diverse audience groups with different interests and needs, including end users, developers and researchers. Different target groups require different approaches by the MULTISENSOR consortium. This means that the information that should be conveyed, as well as the means used, should take into consideration the background knowledge and the interests of the targeted groups.

Since at this stage of the project there are no final results or products that can be demonstrated, the dissemination objective is to present the MULTISENSOR concept, the objectives and the use cases addressed in relevant international and national events. Networking activities are also of great importance, since they allow for direct interaction with potentially interested target groups and researchers working in the same areas.

On the one hand, MULTISENSOR will actively lookout for high profile scientific and industrial events that are within the domain of interest of the project, in order to target the research and academics groups, as well as developers (especially the large/industrial corporations). On the other hand, all conferences targeting the same research areas as MULTISENSOR research partners are of special interest for the MULTISENSOR consortium. These are in particular language analysis, image/video analysis, user and context-centric content analysis, natural language processing, indexing, semantic web and data storage.

In the following, we present indicative scientific conferences in which MULTISENSOR will aim to present the project results after M24, organised per work package and domain of research:

Scientific/Academic conferences

Multilingual and Multimedia content extraction (WP2)

TXIEEE Automatic Speech Recognition and Understanding Workshop (ASRU), December 13-17, 2015, Scottsdale, Arizona, U.S.A.

TRECVID, November 2015, Gaithersburg, MD, USA

Indexing and retrieval (WP4)

TRECVID, November 2015, Gaithersburg, MD, USA

ACM Multimedia Conference (MM), October 26-30, 2015, Brisbane, Australia

22nd International Conference on Multimedia Modelling (MMM), January 4-6, 2016, Miami, USA

Video Search Showcase Competition (VSS), January 4, 2016, Miami, USA

Summarisation (WP6)

Text Analysis Conference (TAC) Workshops (included Knowledge Base Population Workshop, Summarisation Workshop), Expected date: Winter 2015

Data storage and engineering (WP2-7)

As far as the end users and the developers are concerned, they can also be informed about the idea, progress and the products of MULTISENSOR through commercial events and conferences. In such events, dissemination can be achieved through posters, leaflets and brief presentations focusing on the ideas of the project without putting too much emphasis on technical details for a non-technical audience.

The following media-related commercial events/conferences targeted for 2016 are of specific interest to the project:

Media-related commercial events

Mobile World Congress 2016⁷, February 22-25, 2016, Barcelona, Spain

Training events

MULTISENSOR will try to disseminate the knowledge developed in the project by actively participating in Summer Schools. Specifically we will make attempts to include members of the consortium as lecturers in Summer schools in order to ensure the dissemination of the knowledge developed in MULTISENSOR to the academic community and the students.

In this context CETH organised the ESSIR2015⁸, which is the most well-known summer school in Europe on information retrieval. Among the lecturers, we counted with the participation of Leo Wanner (UPF), who presented MULTISENSOR techniques for multilingual summarisation (WP2, WP6), while Barla Cambazoglu (BM-Y!) gave a talk on web information retrieval (relevant to WP3 and WP7).

3.3 Calendar of events

According to the events described in the Section 3.1, Table 1 contains a first draft of the calendar of the main international and national conferences, exhibitions and events that MULTISENSOR will organise and participate in, as well as events that MULTISENSOR has already participated in or organised itself.

⁷<http://www.mobileworldcongress.com/>

⁸<http://mklab.it/essir2015/>

Year -1											
Nov 2012	Dec 2012	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013	Sep 2013	Oct 2013
M -12	M -11	M -10	M -9	M -8	M -7	M -6	M -5	M -4	M -3	M -2	M -1
							LT-Innovat. Summit '13				IRFC 2013
Year 1											
Nov 2013	Dec 2013	Jan 2014	Feb 2014	Mar 2014	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014	Sep 2014	Oct 2014
M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
	1 st MULTISENSOR conference			CeBIT Exhibition & FIBEP Congress			AMEC Summit & CEN/BII		Workshop on Cyber-Physical Cloud Computing	Kommunikations-kongress	
											Op. Prototype
Year 2											
Nov 2014	Dec 2015	Jan 2015	Feb 2015	Mar 2015	Apr 2015	May 2015	Jun 2015	Jul 2015	Aug 2015	Sep 2015	Oct 2015
M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24
			EUMSSI workshop	CeBIT Exhibition	Digital Media Europe Riga Summit		DW Global Media Forum		ESSIR 2015 Summer School	Kommunikations-kongress	ICT Event 2015
					1st Prototype						2nd Prototype
Year 3											
Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Oct 2016
M25	M26	M27	M28	M29	M30	M31	M32	M33	M34	M35	M36
Open&User Day I EUMSSI workshop				User Day II			Final Conference			Open Day II EUMSSI workshop	
										Final System	

Table 1: Calendar of Events

The dissemination actions, including the presentations of MULTISENSOR to conferences and events, to consortia of other projects, as well as the submission of research papers to conferences/workshops relevant to the research areas of the project up to M24, are documented in Tables 2, 3, 4, 5 and 6. We also give an overview of the dissemination actions comparing the first two years of the project emphasizing on the 2nd year.

Dissemination action	Target audience			Status
	End users	Researchers and academic groups	Developers	
1 st year				
MULTISENSOR presentation in LT Innovative Summit 2013, Brussels, Belgium, June 26-27, 2013	Language Technology Industry	Language technology researchers	Language Technology Industry	Finalised
MULTISENSOR presentation in the 6 th IRF conference for Science and Industry, Limassol, Cyprus, October 7-9, 2013		Researchers interested in information retrieval		Finalised
MULTISENSOR joins the European Centre for Social Media (6/2/2014)		Projects dealing with social media		Finalised
MULTISENSOR presence at CeBIT ¹⁰ 2014, on 10-14/3/2014 by Linguattec			IT provider companies	Finalised
MULTISENSOR presentation to FIBEP Congress ¹¹ , on 12-15/3/2014 through leaflet circulation	Media intelligence and communication s companies			Finalised
MULTISENSOR presentation to European Semantic Web Conference (ESWC) ¹² 2014 during the EU Project Networking session, on 27/5/2014		Projects dealing with semantic web		Finalised

¹⁰<http://www.cebit.de/home>

¹¹<http://www.fibep.info/>

¹²<http://2014.eswc-conferences.org/>

MULTISENSOR presentation to CEN/BII ¹³ , on 3-5/6/2014	(1) civil servants of the European Commission (2) UN/CEFACT and OASIS-UBL (3) Member States e-Procurement authorities & consultants; (3) Large Scale Pilots (4) Private Industry consultants	Universities (mainly German ones, working on Classification Systems)		Finalised
MULTISENSOR presentation to AMEC International Summit ¹⁴ through leaflet distribution, on 11-12/6/2014	Media Monitoring Industry			Finalised
MULTISENSOR presentation Global Media Forum ¹⁵ 2014 through leaflet distribution, posters, information booth and project presentation, on 30/06-02/07/2014	Decision makers, media organisations and media partners			Finalised
MULTISENSOR presentation (remote participation) to 4th International Workshop on Cyber-Physical Cloud Computing 2014 –CPCC 2014 ¹⁶ , on 27 – 29/8/2014		Researchers interested in management of heterogeneous sensor data		Finalised
MULTISENSOR presentation to Kommunikationskongress 2014 ¹⁷ , on 25-26/9/2014 by pressrelations which circulated the MULTISENSOR leaflets	Media Monitoring Industry			Finalised
2nd year				

¹³<http://www.cenbii.eu/events-activities/>

¹⁴<http://amecinternationalsummit.org/>

¹⁵<http://www.dw.de/global-media-forum/home/s-30956>

¹⁶<http://www.nict.go.jp/en/univ-com/isp/n2ws14/index.html>

¹⁷<http://www.kommunikationskongress.de/>

MULTISENSOR presentation, by everis, on application of language technologies in SMEs (PIMEC's case) and in public sector (e-procurement) at Horizon 2020 ICT-16 Big Data networking day. Brussels, January 16, 2015.	Decision makers	Researchers in Big data areas	Big data industry	Finalised
MULTISENSOR presentation, by CERTH, at the META-FORUM. Riga Summit, 27-29 April 2015.	Language Technology Industry	Language technology researchers	Language Technology Industry	Finalised
MULTISENSOR presentation, by everis, at Virolai School, 5 May 2015.	Students			Finalised
PR to participate in re:publica on 05-07/05/2015 in Berlin	Media Monitoring Industry			Finalised
MULTISENSOR presentation by CERTH at the Technology Forum 2015 in Thessaloniki, May 8, 2015.	Academia, research, industry and media sectors.			Finalised
MULTISENSOR presentation to AMEC International Summit through leaflet distribution, on 03-04/6/2015	Media Monitoring Industry			Finalised
MULTISENSOR overview paper submission, by CERTH, at ICME 2015, on 29 June – 3 July 2015 in Torino.		Researchers interested in multimedia	Developers dealing with multimedia	Finalised
MULTISENSOR presentation to Kommunikationskongress 2015, on 17-18/9/2015 in Berlin through leaflet distribution	Media monitoring Industry			Finalised
MULTISENSOR presentation, by DW and CERTH at the ICT event, Lisbon, October 22, 2015.	ICT Industry	ICT researchers	ICT Industry and academics	Finalised
3rd year				

MULTISENSOR presentation at the 7 th International Conference on Knowledge Engineering and KEOD 2015 through the European Project Space on 12 to 14 November, Lisbon.				Foreseen
MULTISENSOR presentation at the 47 th FIBEP Congress on 17-20/11/2015 in Vienna	Journalism and Media monitoring Industry			Foreseen

Table 2: MULTISENSOR presentation to conferences and events

During the 1st year 11 presentations of the project took place. During the 2nd year MULTISENSOR was presented to 9 different venues.

Dissemination action	Target audience			Status
	End users	Researchers and academic groups	Developers	
MULTISENSOR presentation to the MUMIA ¹⁸ (COST Action IC1002: Multilingual and multifaceted interactive information access) consortium, Limassol, Cyprus, October 10, 2013.	Partner organisations from these consortia cover all types of users			Finalised
MULTISENSOR presentation to the ENGINE project ¹⁹ , Kick off meeting of ENGINE project, Wroclaw, Poland, October 1, 2013.				Finalised
MULTISENSOR presentation to the WikiRate project, Plenary meeting, Greece, Thessaloniki, June 11, 2014.				Finalised
MULTISENSOR and EUMSSI presentation by UPF the Big Bang Data exhibition at the CCCB in Barcelona, October 21, 2014.				Finalised

¹⁸<http://www.mumia-network.eu/>

¹⁹<http://engine.pwr.wroc.pl/en/>

MULTISENSOR presentation by CERTH in The European Network on Integrating Vision and Language (iV&L Net) ICT COST Action IC1307 ²⁰ . Heidelberg, March 11, 2015.	Partner organisations from these consortia cover all types of users	Finalised
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Table 3: MULTISENSOR presentation to consortia of other projects

In Table 3 we see that during the 1st year MULTISENSOR was presented to 3 consortia, while in the 2nd it was presented to another 2 projects.

In the following we present the conferences and workshops in which the results of the project have been presented. The published papers are available at the project website²¹.

Dissemination action	Target audience			Status
	End users	Researchers and academic groups	Developers	
1 st year				
F. Markatopoulou, A. Moumtzidou, C. Tzelepis, K. Avgerinakis, N. Gkalelis, S. Vrochidis, V. Mezaris, I. Kompatsiaris, “ITI-CERTH participation to TRECVID 2013”, in Proceedings of TRECVID 2013 Workshop, Gaithersburg, MD, USA, November 2013.	Conference participants interested in search engines for multimedia retrieval			Presented
N. Barbieri, F. Bonchi, G. Manco, “Influence-based Network-oblivious Community Detection”, To appear in Proceedings of the IEEE International Conference on Data Mining, Dallas, Texas, USA, December 2013.		Conference participants interested in the research area of “social media”		Presented
L. Macchia, F. Bonchi, F. Gullo, L. Chiarandini, “Mining Summaries of Propagations”, To appear in Proceedings of the IEEE International Conference on Data Mining, Dallas, Texas 2013, USA, December 2013.		Conference participants interested in the research area of “data mining”		Presented

²⁰<http://ivl-net.eu/>

²¹<http://www.multisensorproject.eu/achievements/publications/>

A. Moumtzidou, K. Avgerinakis, E. Apostolidis, V. Aleksic, F. Markatopoulou, C. Papagiannopoulou, S. Vrochidis, V. Mezaris, R. Busch, I. Kompatsiaris, "VERGE: An Interactive Search Engine for Browsing Video", 20th International Conference on MultiMediaModeling 2014 and participation to Video Browser Showdown (VBS) 2014, Dublin, Ireland, January 2014, accepted for publication.	Conference participants interested in search engines for multimedia retrieval			Presented
N. Barbieri, F. Bonchi, "Influence Maximization with Viral Product Design", To appear in Proceeding of the SIAM International Conference on Data Mining (SDM14) - Philadelphia - Pennsylvania 2014.		Conference participants interested in the research area of "data mining"		Presented
T. Tassa, F. Bonchi, "Privacy Preserving Estimation of Social Influence", To appear in Proceeding of the SIAM International Conference on Data Mining (SDM14) - Philadelphia - Pennsylvania 2014.		Conference participants interested in the research area of "data mining"		Presented
C. Aslay, N. Barbieri, F. Bonchi. R. Baeza-Yates, "Online Topic-aware Influence Maximization Queries", To appear in Proceeding of the International Conference on Extending Database Technology (EDBT) - Athens - Greece 2014.		Conference participants interested in the research area of "data management"		Presented
T. Tsikrika, C. Diou, "Multi-evidence User Group Discovery in Professional Image Search", In Proceedings of the 36th European Conference on Information Retrieval (ECIR 2014), 13-16 April, Amsterdam, The Netherlands, 2014.		Conference participants interested in the research area of "information retrieval"		Presented
T. Tsikrika, A. Moumtzidou, S. Vrochidis, and I. Kompatsiaris, "Focussed Crawling of Environmental Web Resources: A Pilot Study on the Combination of Multimedia Evidence", In Proceedings of the Environmental Multimedia Retrieval Workshop (EMR 2014), April 1st, 2014.		Conference participants interested in the research area of "information retrieval"		Presented

M. Ballesteros, S. Mille and L. Wanner, "Classifiers for Data-driven Deep Sentence Generation", In Proceedings of the 8th International Natural Language Generation Conference (INLG), Philadelphia, USA, June 2014.		Conference participants interested in the research area of "language processing"		Presented
M. Ballesteros, B. Bohnet, S. Mille, and L. Wanner, "Deep-syntactic parsing", In Proceedings of the 25th International Conference on Computational Linguistics (COLING), Dublin, Ireland, August 2014.		Conference participants interested in the research area of "language processing"		Presented
Y. HaCohen-Kerner, S. Vrochidis, D. Liparas, A. Moumtzidou and I. Kompatsiaris: "Key-phrase Extraction using Textual and Visual Features", 3rd Workshop on Vision and Language (VL), Dublin, Ireland, August 23-29, 2014.		Conference participants interested in the research area of "speech and language processing and computer vision"		Presented
N. Barbieri, F. Bonchi, G. Manco, "Who to follow and why: link prediction with explanations", Proceedings of the ACM SIGKDD Conference on Knowledge Discovery and Data Mining, New York City, 23-26 August 2014.		Conference participants interested in the research area of "data mining"		Presented
D. Liparas, A. Moumtzidou, S. Vrochidis, I. Kompatsiaris, "Concept-oriented labelling of patent images based on Random Forests and proximity-driven generation of synthetic data", COLING'14 Workshop on Vision and Language (VL'14), Dublin, August 23, 2014.		Conference participants interested in the research area of "speech and language processing and computer vision"		Presented
2nd year				
X. Zuo, J. Blackburn, N. Kourtellis, J. Skvoretz, A. Iamnitich, "The Influence of Indirect Ties on Social Network Dynamics", Proceedings of the 6th International Conference on Social Informatics (SocInfo2014), Barcelona, Spain, 10-13th of November 2014.		Conference participants interested in the research area of "social media"		Presented

I. Arapakis, B. BarlaCambazoglu, M. Lalmas, "On the Feasibility of Predicting News Popularity at Cold Start", In Proceedings of the 6th International Conference on Social Informatics. Barcelona, 10-13 November 2014.		Conference participants interested in the research area of "social media"		Presented
D. Liparas, Y. Hachem-Kerner, A. Moumtzidou, S. Vrochidis and I. Kompatsiaris, "News articles classification using Random Forests and weighted multimodal features", 3rd Open Interdisciplinary MUMIA Conference and 7th Information Retrieval Facility Conference (IRFC2014), Copenhagen, Denmark, November 10-12, 2014.		Conference participants interested in the research area of "information retrieval"		Presented
Y. Mehmod, N. Barbieri, F. Bonchi: "Modeling adoptions and the stages of the diffusion of innovations". Proceedings of the International Conference on Data Mining, December 2014.		Conference participants interested in the research area of "multimedia modelling technologies and applications"		Presented
T. Tsikrika, K. Andreadou, A. Moumtzidou, E. Schinas, S. Papadopoulos, S. Vrochidis, Y. Kompatsiaris, "A Unified Model for Socially Interconnected Multimedia-Enriched Objects", 21st MultiMedia Modelling Conference (MMM2015), Sydney, Australia, 5-7 January, 2015.		Conference participants interested in the research area of "multimedia modelling technologies and applications"		Presented
A. Moumtzidou, K. Avgerinakis, E. Apostolidis, F. Markatopoulou, K. Apostolidis, T. Mironidis, S. Vrochidis, V. Mezaris, Y. Kompatsiaris, I. Patras, "VERGE: A Multimodal Interactive Video Search Engine", Proc. 21st Int. Conf. on MultiMedia Modeling (MMM15), Sydney, Australia, Jan. 2015.		Conference participants interested in the research area of "multimedia modelling technologies and applications"		Presented

T. Tsikrika, A. Latas, A. Moumtzidou, E. Chatzilari, S. Vrochidis, and I. Kompatsiaris. "Discovery of Environmental Web Resources Based on the Combination of Multimedia Evidence". Environmental Multimedia Retrieval Workshop (EMR 2015), Shanghai, China, June 2015.		Workshop participants interested in the research area of "environmental multimedia retrieval"		Accepted
T. Tsikrika, A. Moumtzidou, S. Vrochidis, and I. Kompatsiaris. "Focussed Crawling of Environmental Web Resources Based on the Combination of Multimedia Evidence". Multimedia Tools and Applications.		Researchers on multimedia		In Press
M. Ballesteros, B. Bohnet, S. Mille, and L. Wanner: "Data-driven sentence generation with non-isomorphic trees", in Proceedings of the North American Chapter of Computational Linguistics (NAACL HLT 2015), Denver US June 2015		Conference participants interested in the research area of "language processing"		Presented
J. Soler-Company, M. Ballesteros, B. Bohnet, S. Mille, and L. Wanner: "Visualizing deep-syntactic structures", In Proceedings of the North American Chapter of Computational Linguistics (NAACL HLT 2015), Denver US June 2015		Conference participants interested in the research area of "language processing"		Presented
S. Vrochidis, I. Kompatsiaris, G. Casamayor, I. Arapakis, R. Busch, V. Alexiev, E. Jamin, M. Jugov, N. Heise, T. Forrellat, D. Liparas, L. Wanner, I. Miliaraki, V. Aleksic, K. Simov, A. M. Soro, M. Eckhoff, T. Wagner, M. Puigbó, "MULTISENSOR: Development of Multimedia Content Integration Technologies for Journalism, Media Monitoring and International Exporting Decision Support", 2015 IEEE International Conference on Multimedia and Expo (ICME 2015), Turin, Italy, June 29 - July 3, 2015		Conference participants interested in the research area of "multimedia modelling technologies and applications"		Presented

G. Kalpakis, T. Tsikrika, F. Markatopoulou, N. Pittaras, S. Vrochidis, V. Mezaris, I. Patras, and I. Kompatsiaris. "Concept Detection on Multimedia Web Resources about Home Made Explosives". In Proceedings of the International Workshop on Multimedia Forensics and Security (MFSec 2015), to be held in conjunction with the 10th International Conference on Availability, Reliability and Security, Toulouse, France, 2015.		Conference participants interested in the research area of "multimedia modelling technologies and applications"		Presented
M. Ballesteros, B. Bohnet, S. Mille, and L. Wanner. "Data-Driven Deep-Syntactic Dependency Parsing ". Naural Language Engineering		Researchers interested in the research area of "language processing"		Journal
Y. Hachon-Kerner, A. Sabag, D. Liparas, A. Moutzidou, S. Vrochidis and I. Kompatsiaris, "Classification using various ML Methods and Combinations of Key-Phrases and Visual Features", 1st KEYSTONE Conference (IKC2015), Coimbra, Portugal, September 8-9, 2015		Conference participants interested in the research area of "language processing"		Presented
C. Dyer, M. Ballesteros, W. Ling, A. Matthews, N. Smith: "Transition-Based Dependency Parsing with Stack Long Short-Term Memory ", In proceedings of ACL (ACL-IJCNLP 2015). Beijing, China, August 2015		Conference participants interested in the research area of "multimedia modelling technologies and applications"		Presented
M. Ballesteros, X. Carreras: "Transition-Based Spinal Parsing", In proceedings of CoNLL (CoNLL 2015). Beijing, China, August 2015		Conference participants interested in the research area of "language processing"		Presented
M. Ballesteros, C. Dyer, N. Smith: "Improved Transition-Based Parsing by Modeling Characters instead of Words with LSTMs ", In proceedings of EMNLP (EMNLP 2015). Lisbon, Portugal, September 2015		Conference participants interested in the research area of "language processing"		Presented

3 rd year				
C. Doulaverakis, S. Vrochidis, I. Kompatsiaris, "Exploiting visual similarities for ontology alignment", 7th International Conference on Knowledge Engineering and Ontology Development (KEOD 2015), Lisbon, Portugal, 12-14 November, 2015		Conference participants interested in the research area of "data mining"		Accepted
I. Gialampoukidis, S. Vrochidis and I. Kompatsiaris. "Fast Visual Vocabulary Construction for Image Retrieval using Skewed-Split k-d trees". Proc. 22nd Int. Conf. on MultiMedia Modeling (MMM16), Miami, USA, Jan. 2016		Conference participants interested in the research area of "data mining"		Accepted
A. Moumtzidou, T. Mironidis, E. Apostolidis, F. Markatopoulou, A. Ioannidou, I. Gialampoukidis, K. Avgerinakis, S. Vrochidis, V. Mezaris, I. Kompatsiaris, I. Patras, "VERGE: A Multimodal Interactive Search Engine for Video Browsing and Retrieval", Proc. Video Browser Showdown (VBS'16) at the 22nd Int. Conf. on MultiMedia Modeling (MMM'16), Miami, USA, 4 January 2016.		Conference participants interested in the research area of "information retrieval"		Accepted

Table 4: MULTISENSOR publications and conference/workshop participations

During the 1st year 15 papers have been published. During the second year, MULTISENSOR achieved 17 publications, while another 3 papers are already accepted for publication during the third year.

Demonstrations	Participant	Description
First prototype demonstration on 19 May 2015	Marga Soto	Export freelance
First prototype demonstration on 19 May 2015	Marcela Véliz	Export freelance
First prototype demonstration on 19 May 2015	Marta Fernández	Export freelance
First prototype demonstration on 21 May 2015	Daniel Sánchez	Export manager RAFESA
First prototype demonstration on 30 June 2015	ICME 2015	International Conference on Multimedia and Expo

Table 5: MULTISENSOR demonstrations

In Table 5 we can see the demonstrations that took place during the 2nd year. Given the fact that the 1st prototype was developed in M18 there were no demonstrations of the platform during the 1st year.

Dissemination action	Target audience			Status
	End users	Researchers and academic groups	Developers	
1 st MULTISENSOR Conference Partner organizing conference: PIMEC Location and date of conference: Barcelona/ Spain, 11th of December 2014 Content of conference: Explained what is MULTISENSOR, the role of partners and the benefits for SME's and the public sector. Number of participants: 20	SMEs, Public Administrations			Finalised

Table 6: MULTISENSOR conferences

During the 1st year the first conference of MULTISENSOR took place focusing on SMEs and Public administrations. The second conference will take place during the 3rd year.

Dissemination action	Target audience			Status
	End users	Researchers and academic groups	Developers	
1 st year				
MULTISENSOR & SocialSensor meeting on 12-14 November 2013. The partners participating were: CERTH and Deutsche Welle	Deutsche Welle	CERTH		Finalised
MULTISENSOR & EUMSSI meeting at UPF on 22 January 2014. The partners participating were: UPF teams (TALN-UPF & GLiCom-UPF)		TALN-UPF, GLiCom-UPF		Finalised

MULTISENSOR & EUMSSI meeting at UPF on 19 February 2014. The partners participating were: everis and UPF for MULTISENSOR and UPF/VSN for EUMSSI		TALN-UPF, GLiCom-UPF	VSN, everis	Finalised
MULTISENSOR & EUMSSI meeting at Yahoo Labs Barcelona on 26 March 2014. The partners participating were: BM-Yahoo! and TALN-UPF for MULTISENSOR and of GLiCom-UPF for EUMSSI		BM-Yahoo!, TALN-UPF, GLiCom-UPF		Finalised
MULTISENSOR & EUMSSI conference call on 10 June 2014. The participants were: IAI Saarbrücken for EUMSSI and Linguatéc for MULTISENSOR.			IAI Saarbrücken, Linguatéc	Finalised
MULTISENSOR & EUMSSI meeting at Yahoo Labs Barcelona on 1 September 2014. The partners participants were: BM-Yahoo! for MULTISENSOR and GLiCom-UPF for EUMSSI.		BM-Yahoo!, GLiCom-UPF		Finalised
2nd year				
REVEAL & MULTISENSOR meeting at CERTH on April 29, 2015.	DW	CERTH	ATC	Finalised
MULTISENSOR & EUMSSI meeting and User Day at DW in Bonn on 26 and 27 November				Foreseen

Table 7: MULTISENSOR meetings with other related projects

In Table 7 we report the common project meetings with other consortia. During the 1st year 6 project meetings with other consortia took place, while an additional 2 were organised during the 2nd year.

Looking at the evolution of the events, demonstrations and publications during the project lifetime, we can see that during the second year the level of activity remained high and, in some cases, showed progress in comparison to the first year of the project.

4 MULTISENSOR USER GROUP

4.1 Objective

An important objective of the project is to create an interested community called User Group (UG). The UG consists of different stakeholders including media monitoring companies, SMEs with internationalisation goals, institutions, and other relevant companies and users. The main purpose of the UG is to involve experts from companies and research institutes with an interest in MULTISENSOR for an exchange of ideas and to get another expert opinion on the progress of the project. Specifically, members of the UG could be involved in user requirements extraction, testing of technical modules, as well as advising developments for specific tasks.

The User Group members are being informed about the latest progress and the developments of the project. It is also important that the UG will setup partnerships that are mutually beneficial; after specific agreements (initially Non-Disclosure Agreements (NDA) will be signed), it will be possible for them to:

- Participate in the evaluation of the project results;
- Test the project software and provide feedback;
- Establish synergies for the possible exploitation of the project results, the development of business models, partnerships etc.;
- Participate in the technical discussions and activities (special sessions, standardisation, etc.);
- Contribute with ideas or requirements that may fit the project objectives.

4.2 Definition of the users: user categorisation

Our objective is to reach as many stakeholders as possible in order to have them actively cooperate with the project. The UG has been categorised into companies, experts and institutions. The UG members are also classified according to the level of their expertise and involvement to the project into two groups: a) focus group and b) exploitation group.

Focus group: The focus group includes different kind of stakeholders. The UG can opt for receiving updates on the MULTISENSOR project, or just to receive specific information on the tasks they are interested in, and the events they would want to participate in.

Exploitation group: The exploitation group includes the organisations and companies that are interested in getting involved actively in the project by contributing to the requirements, to the developments and to the evaluation process.

4.3 User Group cooperation plan

The first year plan was to find and contact the User Group and explain what is MULTISENSOR and also to update the information about the project regularly.

In the second year, we had more interactions with the UG by distributing newsletters and having direct contact with UG members by calls and targeted dissemination activities. After internal discussions, it was considered more profitable for the project to include external experts for updating the requirements and participation in the evaluation after (and not

earlier than) the first development cycle. Indeed, the UG will be now involved in the second prototype evaluation by testing the MULTISENSOR platform regarding their specific Use Case.

Up to now the UG has already 33 members, divided by:

Companies: 16 members (see Table 8);

Experts: 7 members (see Table 9);

Institutions: 10 members (see Table 10).

Some other prospective UG members are under contact.

Companies				
Company	Description	Interest	Contact	Country
Data Scouting	ICT company providing media monitoring solutions	Interested in getting updates for the project.	Stavros Vologiannidis	Greece (GR)
Findwise	ICT company providing search solutions	Pending	Henrik Strindberg	Sweden
IALE	ICT company providing data mining solutions	Pending	Enric Escorsa	Spain
Treparel	ICT company providing data mining solutions	Pending	Anton Heijs	Holland
Ekonom	ICT company providing semantics and data mining solutions	Interested in getting updates about the project.	Espen Kon	Israel
DOTSOFT	ICT company providing data mining solutions	Interested in getting updates about the project.	Odysseas Spyroglou	Greece
Mozaika	ICT company providing data science solutions	Participation in the evaluation and in the requirements gathering. Involvement in the UG depending on the time schedule.	Mariana Damova	Bulgaria
QMUL, Multimedia and Vision Research Group	Multimedia applications	Interested in getting updates about the project.	Ioannis Patras	UK
Aii Data Processing Ltd	Provides business news and market intelligence with	They seemed to be very interested in the Open Days, the	Anton Todorov	Bulgaria

	focus on the emerging markets of Central and Eastern Europe. Specialises in monitoring, measurement and analytics of mainstream and social media.	connections and the potential of our project.(Especially interested for the use-case of "International media monitoring: Scenario 1")		
Lautenbach Sass	Management consulting firm specializing in communications management	Generally interested.	Katharina Simon	Germany
Zebra Design & Retail	SME (design & Retail)	Participation on the User Group & receiving updates.	Francesc Querol	Spain
Aquarius Cosmetics	SME (Cosmetics)	Interested in getting updates about the project.	Ramon Soler	Spain
Neptuno films	SME	Interested in getting updates about the project	Neus Viciano	Spain
GrupBarcelonesa	SME (chemical products distributor)	Participation on the User Group & receiving updates.	Anna Collell	Spain
CASMAR	SME (security systems)	Interested in getting updates about the project.	Montse Castro	Spain
ATC	Software Company, Media research and development.	Pending	Nikos Sarris	Greece

Table 8: MULTISENSOR companies User Group members

Experts				
Name	Description	Interest	Contact	Country
Jordi Mallorquí	Expert in Internationalisation	Participation in the User Group	Jordi Mallorquí	Spain
Jordi Planas	Expert in Internationalisation	Participation in the User Group	Jordi Planas	Spain
Míriam Sabaté	Expert in Internationalisation	Participation in the User Group	Míriam Sabaté	Spain
Joan Carles Espigol	Expert in Internationalisation	Participation in the User Group	Joan Carles Espigol	Spain

Ricard Navàs	Expert in Internationalisation	Participation in the User Group	Ricard Navàs	Spain
Pere Duran	Expert in Internationalisation	Participation in the User Group	Pere Duran	Spain
Marta Sanchez-Pol	Expert in Internationalisation	Participation in the User Group	Marta Sanchez-Pol	Spain

Table 9: MULTISENSOR experts User Group members

Institutions				
Organisation	Description	Interest	Contact	Country
JRC	Research centre working on media monitoring	Interested in getting updates about the project.	Ralf Steinberger	Italy
SEERC	Research centre working on knowledge management	Interested in getting updates about the project.	Iraklis Paraskakis	Greece
Fraunhofer MOEZ	Research centre	Interested in the progress of the project. Would also like to test some technology. Will not be able to test “raw software”. But if the technology is packaged into APIs that can be conveniently used, tests would be possible.	Lutz Maicher	Germany
Jerusalem College of Technology	College of Technology	Participation on the User Group – cooperation in supervised machine learning tasks.	Yaakov HaCohen-Kerner	Israel
DG MARKT – EUGO, Points of Single Contact	Unit E01 Coordination	Link to Directive 2006/123/EU on Services.	Agneszka Biajno	Brussels
European Journalism Center	Journalism Training and Research Organisation	Confirmed	Eric Karstens	Netherlands

Beeld&Geluid	Cultural-historical Media Organisation	Confirmed	Johan Oomen	Netherlands
IRT	Research Institute for Media technology	Confirmed	Peter Altendorf	Germany
Fraunhofer FAME	Research institute working on the future of media.	Confirmed	Stefan Arbanowski	Germany
University St. Gallen	Media & Communications Department	Confirmed	Katarina Stanoevska	Switzerland

Table 10: MULTISENSOR institutions User Group members

Apart from the above mentioned people that have confirmed their involvement in the MULTISENSOR User Group, there is an indicative list of potential users that under contact or waiting for their answer involving the UG (See Table 11).

Organisation	Description	Contact	Country
Fraunhofer IAIS	Research institute working on data analysis.	Joachim Köhler	Germany
DG MARKT	Business to consumer services	-	Brussels
The Brussels Times	Newspaper	-	Brussels
DG TAXUD	Enforcing Right, Legislation, Customs.	-	Brussels
SWR Digital Archive	Public German Broadcaster.	Dominik Frey, Robert Fischer	Germany
RBB	German Public Broadcaster	Bettina Heidkamp	Germany

Table 11: MULTISENSOR User Group members under contact

Newsletter User Group: A newsletter template was designed to inform the members of the User Group in the first place and, in addition, invite other interested organisations to participate. A first User Group newsletter was issued on the 30th June 2015 informing about the evolution of the project and the first prototype evaluation. For that matter, slightly different pieces were issued in order to target the different PUC of the project, that is, the technical area and the three Use Cases. A second newsletter was sent the 26th October 2015 in order to invite the User Group members to the User Day in Bonn and also recall them of their involvement in the evaluation of the second prototype.

SMEs to participate in the MULTISENSOR prototype evaluation



After 18 months of development, the first prototype of the MULTISENSOR platform will be ready for the first tests and evaluations. The MULTISENSOR project aims at developing an automated method for linking heterogeneous contents, distributed via a variety of mass media, and evaluating this data with a practical focus. The use cases of the project will be the base for the initial evaluation. The analysis of specific examples in the areas of SME internationalisation, journalism, and commercial media monitoring will allow the partners to assess the platform.

Regarding SME internationalisation, SMEs and export managers are invited to participate in the use case evaluation of the first prototype. They will be able to use the online platform and assess its usability and content display. Specifically, SMEs will test the adequacy of MULTISENSOR for market analysis, cross-country examination, exploration of new foreign markets, and export and internationalization decision-making. Export managers can contribute with their expertise and knowledge and give valuable insights on the process that SMEs follow in their internationalization.



The MULTISENSOR User Group is key for the evaluation and development of the project. The community of relevant stakeholders from different areas of expertise will evaluate the project results, test the project software platform and provide feedback. Application developers, media monitoring companies, media researchers, journalists and SMEs are amongst the members of the User Group. Seminars and tutorials will be organised to demonstrate the MULTISENSOR prototype, evaluate experimental techniques, comment on the results, and collect feedback for improvements.

The MULTISENSOR consortium welcomes the participation of interested SMEs and export managers in the User Group. An opportunity to participate will be in an Open Day that will be held in Bonn in late November 2015.

The three-year research programme reaches its half-way point.

Related Articles

[Can technologies like Multisensor serve the needs of a society in times of crisis?](#)

[What is Machine Translation all about?](#)

Follow us!



Figure 16: Newsletter template

5 STANDARDISATION BODIES

International standards are essential in bringing technological, economic and societal benefits. They help to harmonise technical specifications of products and services, making industries more efficient and breaking down technological barriers. The MULTISENSOR project has envisioned scientific objectives (e.g., content representation, social web, augmented reality) that target several standardisation bodies. This presents an opportunity to the MULTISENSOR consortium to become actively involved in the implementation of existing standards, as well as the creation of new standard recommendations. Below is an update of the actions that were carried out towards standardisation during the preceding months, per Work Package (see Table 12 for the summary of efforts). The action list is continuously updated and added to the project communication and dissemination plan.

Standard body	Responsible	Initial Action/timing	Definition of potential standard contribution/ timing
W3C, MPEG-7	CERTH	CERTH developed the Socially Interconnected and Multimedia-Enriched Object (SIMMO). This model definition has been published in the 21 st Conference on Multimedia Modelling (MMM2015). CERTH has created a proof of concept implementation of SIMMO to support object storing and retrieval for the 1 st prototype of MULTISENSOR. These implementations are aligned with the developments in REVEAL ²² project, which emphasises on social media. CERTH also plans to reuse SIMMO in another two projects that they participate: HOMER ²³ and KRISTINA ²⁴ .	Contribute to the existing multimedia modelling standards by standardizing SIMMO. Reuse SIMMO in other projects.
EC Publications Office	UPF	RDF version of EuroVoc: use thesaurus as source of concepts.	
W3C Ontolex,	UPF,	Considered linguistic	Use of Linguistic

²²<http://revealproject.eu/>

²³ <http://www.homer-project.eu/>

²⁴ <http://kristina-project.eu/>

Standard body	Responsible	Initial Action/timing	Definition of potential standard contribution/ timing
OKFN Open Linguistics, W3C LD4LT, BPMLD	ONTOTEXT	models and resources: - NIF (see next) - OLIA (morphology), Constituents: Penn, Stanford, etc. -BabelNet (incl. WordNet, Open Multilingual WordNet, Wikipedia, OmegaWiki, Wikidata, Wiktionary) -Lemon/LexInfo (lexica: wordnets/ dictionaries).	ontological models for storing extracted linguistic information in the Knowledge Base and exploiting them for natural language generation.
W3C Ontolex, OKFN Open Linguistics	UPF, ONTOTEXT, Linguattec	Named Entity Recognition (NER) (T2.2) Concept linking and relation extraction (T2.3) - Shallow dependency parser - Deep dependency parser - Coreference resolution - Relation extraction	NLP Interchange Format (NIF) 2.0: ontological model of stand-off annotations to express all kinds of linguistic information.
W3C, JSON-LD	UPF, ONTOTEXT	Implementation in progress (available implementation in the dependency parser service).	JSON for Linked Data (LD): JSON serialisation format for RDF triples.
W3C, RDF/OWL/SPARQL	ONTOTEXT	Implemented in Ontotext GraphDB (OWLIM).	Adopt Semantic Web standards (RDF, OWL, SPARQL) for data and query representation.
W3C Emotion Incubator Group, Emotion Markup Language (EmotionML)	BM-Y!	Further activity to be defined at next plenary meeting.	Adopt EmotionML (partly) in sentiment analysis specifically for representing and storing information. Selection of the <dimension> element, among the various representation schemas provided by EmotionML, as the most suitable representation

Standard body	Responsible	Initial Action/timing	Definition of potential standard contribution/ timing
			method describing an emotion or a related state according to an emotion dimension vocabulary.
DublinCore Metadata initiative	BM-Y!	Use for the ontological representation of contextual features	N/A

Table 12: Standard bodies

5.1 WP2 – Multilingual and Multimedia Content Extraction

Related actions with respect to standardisation bodies in the context of WP2 are detailed as part of the efforts of WP4 and WP6, in sections 5.3 and 5.5 respectively.

5.2 WP3 – User and Context-centric Content Analysis

For the ontological representation of the contextual features (T3.2), the Dublin Core metadata initiative is used. Apart from the fifteen elements of the classic "Dublin Core" (such as dc:title, dc:creator, dc:date, dc:source), which have been standardised as ISO Standard 15836:2009 and ANSI/NISO Standard Z39.85-2012, we have planned to also extend the schema to include additional required ones.

The lack of agreement on descriptors in the field of sentiment classification, among other related domains, creates a need for interoperability and use of publicly defined vocabularies where possible and reasonable, from the point of view of the target application. EmotionML provides mechanisms to represent emotions in terms of scientifically valid descriptors: categories, dimensions, appraisals, and action tendencies. In the context of WP3, BM-Y! is considering adopting in part the EmotionML²⁵ for the sentiment classification task (T3.3), and more specifically, for storage and representation purposes. Such an example is the <dimension> element, which is a suitable descriptor for representing emotions or related states such as the polarity (valence) and sentimentality (arousal) dimensions. Other declared dimension vocabularies will be considered, depending on the requirements of the use case.

5.3 WP4 – Multidimensional Content Integration and Retrieval

In the context of WP4 (Task 4.4), CERTH developed the Socially Interconnected and Multimedia-Enriched Object (SIMMO). SIMMO integrates in a unified manner the representation of multimedia and social features extracted in WP2 in online environments. Its representation captures some of the most salient characteristics of online social multimedia content, such as host heterogeneity and fragmentation, media objects diversity, online links and relations, social links and interactions, dynamic content and automatically generated metadata. In addition, SIMMO supports several tasks related to information

²⁵<http://www.w3.org/TR/emotion-voc/>

processing, analysis and access, such as cross-host search, multimodal search, layered annotation, varied granularity access, and content provenance.

SIMMO was jointly developed in collaboration with the SocialSensor FP7 ICT IP²⁶ and REVEAL FP7 ICT²⁷ projects. SocialSensor and REVEAL contributed especially with respect to the requirements imposed by social media posts. SIMMO is an extension of the Dynamic Social Container (DySCO), which was developed in the context of SocialSensor.

SIMMO definition was presented and published in the 21st Conference on Multimedia Modelling (MMM2015), Sydney, Australia (Tsikrika et al., 2015).

CERTH applied the SIMMO representation in MULTISENSOR in order to support retrieval, classification and clustering tasks. Specifically, in the context of WP4 we have developed a proof of concept implementation which will be integrated in the MULTISENSOR prototypes to support mainly indexing and retrieval. Any updates are performed in close collaboration with REVEAL project.

MULTISENSOR together with REVEAL will investigate the extension of SIMMO as a standard, which will efficiently represent heterogeneous multimodal information.

CERTH will apply the SIMMO model and check its performance in other projects (i.e. HOMER and KRISTINA).

Regarding ontology and content alignment, CERTH is monitoring the progress and evolution of the Expressive and Declarative Ontology Alignment Language (EDOAL)²⁸, which is an expressive language to represent relations between entities from different ontologies. It is expressive enough to enable the representation of complex correspondences thus allowing to precisely describing the relation between the entities. CERTH is already using the Alignment API²⁹, which includes an implementation of EDOAL, and is investigating EDOAL to identify gaps or missing features in the language and propose extensions.

5.4 WP5 – Semantic Reasoning and Decision Support

No updates took place with respect to WP5 compared to the standardisation activities reported in D9.3_v1.

5.5 WP6 – Summarisation and Content Delivery

Many of the tasks foreseen in the MULTISENSOR project involve dealing with linguistic information either resulting from the analysis of texts and transcribed audio in multiple languages (WP2) or used in the production of multilingual summaries (WP6). Partners involved in these tasks are adopting or considering for adoption several officially endorsed, de facto and prominent Web-linguistic representations of linguistic information:

NLP Interchange Format³⁰ (NIF) 2.0 has been agreed on as the common model for the representation of stand-off annotations produced by the text analysis modules in WP2.

²⁶<http://www.socialsensor.eu/>

²⁷<http://revealproject.eu/>

²⁸<http://alignapi.gforge.inria.fr/edoal.html>

²⁹<http://alignapi.gforge.inria.fr/>

³⁰<http://persistence.uni-leipzig.org/nlp2rdf/>

OLiA³¹ ontologies have been agreed on as the base for the codification of linguistic information associated to the annotations (e.g. morphological and syntactic information in T2.4).

The Stanbol Enhancement Structure³² is being considered for codification of provenance (i.e. specify which tool was used to produce the annotations).

The Named Entity Recognition and Disambiguation³³ (NERD) model is being considered for codification of the results of task T2.2.

The Lexicon Model for Ontologies³⁴ (Lemon) being developed in the W3C Ontology-Lexica (OntoLex) Community Group is also being considered as the standard representation for dictionaries and other lexical resources used in WP6. The adoption of the BabelNet³⁵ dataset as the central element in the concept extraction task (T2.3) is a further incentive towards the adoption of Lemon.

FrameNet³⁶ is a prominent lexical database of predicative word senses and has been agreed on as both a model and a reference repository for the relation extraction task (T2.4).

5.6 WP7 – System Development and Integration

No updates took place with respect to WP7 compared to the standardisation activities reported in D9.3_v1.

³¹ <http://purl.org/olia>

³² <https://stanbol.apache.org/docs/trunk/components/enhancer/enhancementstructure.html>

³³ <http://nerd.eurecom.fr/>

³⁴ <http://lemon-model.net/>

³⁵ <http://babelnet.org/>

³⁶ <https://framenet.icsi.berkeley.edu/fndrupal/home>

6 MEASURABLE DISSEMINATION GOALS

To quantify and evaluate the dissemination targets, MULTISENSOR has set some specific measurable goals with respect to the set activities. The following are numbers set for the minimum dissemination goals:

Goal	Currently
2 workshops in cooperation with EUMSSI held in M12 and M28 with 30 and 40 participants respectively.	1
20 scientific publications during the project lifetime, which at least two of them reporting part of the advancements of each research Work package (WP2-WP6).	32
3 participations in cluster events and/or standardisation initiatives during the project lifetime.	23
3 meetings per year with related ICT projects during the project lifetime.	Y1 - 6 Y2 –1 Y3 - Pending
3 press releases in total (at least one per year).	Y1 - 5 Y2 –1 Y3 - Pending
18 newsletters in total (6 news items per year)	Y1 - 6 Y2 - 6 Y3 - Pending
25% growth in website traffic every year. *(Total website visitors first year = 2067. Total visitors of the first 7 months of the second year = 3948)	Y1 –N/A Y2 –91% Y3 - Pending
2 MULTISENSOR User Days with at least 30 participants for each User Day.	0
MULTISENSOR Open Door Days with 50 participants for each Open Door Day.	0
MULTISENSOR Conferences with at least 60 participants.	1
Demonstrations of MULTISENSOR platform (intermediate prototypes and/or final system) to 20 participants in total during the lifecycle of the project.	5
Project presentation to 10 consortia during the project lifetime.	5

Table 13: Measurable goals

Therefore, it can be said that the project is on a good path to meet the expected targets set by the dissemination goals. For some of these goals, the project has reached the expected targets for the whole project already during the first two years (e.g. 32/20 publications, 23/3 participations to cluster events). For others, the project shows good progress, such as communication and dissemination points like newsletters and website traffic. In addition, it is reasonable that for specific targets no progress is reported (e.g. User Days), given the fact that these are expected to be addressed first in Bonn the coming November 2015 and a second one in the latter stage of the project.

7 SUMMARY

In this deliverable, we summarised the measurable dissemination goals and strategies of MULTISENSOR and provided updates regarding the dissemination activities that were done during the first 24 months of the project. It also included the status of the User Group (UG), its categorisation and the cooperation plan. The information regarding the dissemination plan, calendar of events and material such as flyers will be constantly updated.

This report contains the dissemination activities that mark the completion of the first two years of the project as well as their statuses. The dissemination activities for rest of the project will be reported in D9.5_v2 (M30) and D9.6 (M36).