

First Internal Training Workshop Report **D9.2**

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ABSTRACT:

This deliverable is a report of the first awareness workshop, which was held on February 21, IRT in Munich to inform potential interested parties about the VITALAS project.

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Table of content

1	INTRODUCTION	
2	OBJECTIVES	
3	AWARENESS WORKSHOP7	
3.1	AGENDA7	
3.2	LIST OF PARTICIPANTS	
3.3	DISCUSSION9	
3.4	QUESTIONNAIRE14	
3.5	DIFFUSION14	
4	CONCLUSION15	
ANNEX 1: AWARENESS WORKSHOP INVITATION16		
	IEX 2: AWARENESS WORKSHOP QUESTIONNAIRE18	

1 INTRODUCTION

VITALAS (FP6 – 045389) is a 3-year Integrated Project funded by the EC. VITALAS is an innovative project designed to provide advanced solutions for indexing, searching and accessing large scale digital audio-visual content. More information on VITALAS may be found on http://vitalas.ercim.org/content/view/4/5/.

Work Package 9 (WP9) of the VITALAS project focuses on training. The objective of this training activity is threefold:

- To design and efficient training material and courseware for future users of the system.
- To organize training and awareness workshops.
- To deliver efficient training to external user communities to facilitate the use and adoption of the final system

To achieve these objectives, WP9 will produce training material, implement a training portal on the project web site and organise training seminars and a summer school to bring VITALAS technology to the user. This workpackage will also gather user feedback using dedicated questionnaires, in order to improve the system functionalities and assess user satisfaction.

The VITALAS Awareness Workshop, held on February 21 at IRT premises in Munich, was entitled 'A tutorial on next generation multimedia search engines'. It was the first of a series of project workshops and training events with the intent to raise awareness of the VITALAS project among potentially interested parties. This document provides a detailed report of the workshop.

Section 2 presents an overview of the workshop objectives. Section 3 reports in detail on the workshop, covering its structure, participants, the nature of the discussion and the results of the questionaire; this section captures most of the feedback and questions elicited from users in the workshop.

In the conclusion, Section 4, we briefly describe what we consider to be the achievements of the workshop, and outline how we intend to exploit the workshop results.

2 OBJECTIVES

This one day awareness workshop was targeted at potential users of VITALAS. The participants comprised representatives from the content owners IRT, Belga, INA and other people within their 'close user community'. The workshop aim was to update them in an interactive, pragmatic manner on the latest evolutions on picture -, audio- and video search and (semi) automatic annotation engines. This would provide a context for the subsequent presentation of the VITALAS functionality and objectives.

Active participation was promoted and encouraged in this workshop, which helped to elicit and define important success and acceptance criteria for VITALAS. This criteria will be further defined in ST.1.3.1 Definition of success criteria.

3 AWARENESS WORKSHOP

This section of the document describes in detail the workshop.

The rationale for this workshop was that VITALAS professional users, representing end-user partners, require a focused event which accounts for their specific objectives, concerns, and pre-existing understanding of the project content. Incorporating this event within the MUSCLE dissemination activities (WP 8) was deemed inappropriate, since the audience was not sufficiently specialised. The location was chosen to ensure engagement with IRT's close user community of German broadcast organisations.

3.1 AGENDA

The agenda can be found in the invitation (Annex 1) which was sent out to 12 organisations (the 3 content partners (Belga, INA, IRT) + 4 German broadcasters associated with IRT + AFP + 4 shareholders of Belga)

All VITALAS partners were engaged in the production of the agenda, to ensure that all relevant topics were sufficiently addressed. A key decision was that VITALAS should be presented in the wider context of state-of-the-art multimedia annotation and retrieval systems. The agenda has five major topics, each presented with a relevant expert from the VITALAS team. A plenary discussion was held at the end of the sessions.

The introduction and a general context, challenges and objectives description was presented by Christoph Dosch (Head of Collaborative Research at IRT).

Because of the clear difference in use cases (picture- vs. video oriented) the first session by Tom Wuytack (ICT Project & Solution Officer at Belga) focused more on picture related topics, while Peter Altendorf's (Research Engineer and VITALAS Project Coordinator at IRT) section focused on the audio and video related topics. In both sections we presented the user with current limitations, showed them existing initiatives and indicated to them (where possible with demonstrations) how VITALAS addresses these topics. We decided to incorporate these demonstrations to clarify often difficult (academic) terminology to the audience.

In the technology section by Bruno Grilhères (EADS) the main principles of the VITALAS architecture were shown, accompanied by a demonstration video of the first VITALAS prototype. Rather then going into technical details, the presentation was very much end user-orientated and focused on the benefits of the VITALAS architecture and it's operation in different environments.

Before entering into the discussion (see Section 3.3) Marie-Luce Viaud (research team leader at INA) informed the participants of the next steps in VITALAS and what we would like them to contribute (which is a critical success criterion for the success of VITALAS towards the target groups).

The agenda was deemed to be well-balanced by the participants, and proved to be successful in eliciting the feedback we required.

3.2 LIST OF PARTICIPANTS

In total 19 people participated in the event:

Company/ Organisation	First Name + Name	Function
AFP	Laurent Le Meur	Responsable Technique Médialab
Belga	Tom Wuytack	ICT Project & Solution Officer
Belga	Jaak Leenknegt	Technical & Administrative Director
Belga	Nathalie Willems	Picture editor
BR	Dirk Brandhorst	Supervisor Digital Archive Systems
EADS	Bruno Grilhères	
INA	Marie-Luce Viaud	Research team leader
INA	Nathalie Crist	archivist
INA	Sandrine Deboix	archivist
INRIA	Joost Geurts	
IRT	Christoph Dosch	Head of Collaborative Research
IRT	Peter Altendorf	Research Engineer
IRT	Ralf Neudel	Research Engineer
IRT	Birgit Schröter	Research Engineer
IRT	Siegbert Herla	Subject Specialist Media Engineering
WDR	Frank Kraske	Head of Technology and Innovation Management
ZDF	Wolfgang Wagner	Head of Information and System Technology
ZDF	Wolfgang Habekost	Archive, Library and Documentation Officer
ZDF	Hans-Peter Altmeyer	Team Leader Newsroom and Programme Information Systems

Of the 19 participants, 13 of them were new to the VITALAS project, the other six were either a speaker or already actively involved in VITALAS. The group consisted of a good mixture of content editors/archivist, technicians and decision-makers.

We were very pleased with the success of the event, and would like to present relevant content from the workshop to VITALAS potential users who were unable to attend. Therefore we intend to organise informal events at the premises of the content partners. For example, at Belga it is planned to show the video demonstration of VITALAS prototype to the board of directors.

3.3 DISCUSSION

Though a separate discussion session was planned at the end of the workshop, we encouraged questions and interaction during all sessions.

The list below summarizes all questions asked by the workshop participants to VITALAS project members. It demonstraters the important issues for the participants in the workshop. This input and the results from the questionnaire (see Section 3.4) will be further used in this workpackage and in WP1 to better address the user requirements and success criteria.

→ Questions:

10h45: challenges, context and objectives (Christoph Dosch, IRT)

11h15: the not so far future of picture search and annotation (Tom Wuytack, Belga)

Questions	Answers
How long does it take to index/treat e.g. 6 millions images?	For the moment it takes 3 seconds per image
On automatic concept extraction: Do you have a hierarchical view of concepts provided	Not yet, but we may consider it
Why limit yourself to 300 or 1000 concepts?	Current state of the art is about a 100 concepts. In VITALAS we intend to create such an architecture that adding new concepts at a later stage is straightforward
How can I best retrieve all pictures of 'an airbus 380 with a front view'?	Best is to search first a text query on airbus and then combine it with a visual query of a picture of any airplane which shows a front view

13h15: next generation multimedia search engines (Peter Altendorf, IRT)

Questions	Answers
How is the combination of text and visual queries done with video?	The process for automatic extraction of visual indexes is the same on video and on still images. In fact, the preliminary study for the uses cases shows that the use of motion in the retrieval process was very uncommon with respect to the importance of static

	content information. For a collection of short illustrative shots, such as AFP content, the combination of text and visual queries will be very similar than for still images, a shot being represented by a thumbnail in the interface and considered as a collection of still images for the retrieval system.
Why do you put research effort in segmentation of video? Isn't it already done via e.g. Virage/Autonomy?	Many existing tools are able to find more or less shots. However, the shot doesn't seem an object of interest for users: INA's archivists could use a shot layout process to visualize the programmes they are working on, but they generally prefer the classic time sampling which allows them to perceive instantaneously the duration of a shot, which is linked more often to its importance. In fact, shots are the smallest visual entities for audiovisual writing: they are numerous and may be of different type (formal, illustrative). The interpretation of their meaning depends on their own characteristics (duration, etc) and context. Then, a simple layout of shots loses information and doesn't seem to be efficient to perceive quickly the content of a video. However, there is a real need to have tools to navigate quickly through videos. In fact, video parsing is mostly temporally linear and time consuming for any activity of retrieval. In Vitalas' use cases, we have tried to address this problem of navigation or quick analysis of video contents. The word "segmentation" is probably too restrictive in our context, because the idea is to extract and represent specific objects or markers to "segment" or "structure" temporally the programme in order to allow non linear parsing.

Questions	Answers
Which tools are you using for the orchestration?	Orchestra
What is specific about the Weblab Core? (and where can I find more info?)	The WebLab is a platform aiming at providing intelligence (business, strategic, military) solutions and any other applications that need to process multimedia data (text, image, audio and video). All info can be found on http://www.weblab-project.org

What can metadata be? (text? Or maybe also a logo, jingle?)	Yes, it can be all of that
Do we have databases with specifications of faces, voices which we can plug in to the system?	Not yet. The architecture of the VITALAS system would allow however to easily plug in these info.
How long does it take to index an image?	For the moment it takes 3 seconds per image
What does a visual description of a video/image looks like?	Typically a string of numbers representing a vector
Is the identification of voices and persons part of VITALAS?	VITALAS will allow clustering of the main speakers inside of a TV programme, but the speaker won't be identified. VITALAS will include also a basic face recognition module. If a face is identified and associated with a "voice" cluster, then the voice cluster will be identified. However, the face recognition module is a "state of the art" module and will allow the identification of a very small set of faces.

14h45: next steps and perspective (Marie-Luce Viaud, INA)

Questions	Answers
Will there be another workshop?	Yes, the objectives of VITALAS is to involve users in the project to test, and to provide feedback which ultimately results in a product which satisfies their needs. The first version of the system has been demonstrated today and is available on the net. The second version of the system (V1+) will be available in June with a bigger set of data and additional functionalities. We will organize between June and September a seminar to show and make available the system for content owners. From September 2009 to the end of the project, trainings and trials will be organized to validate the system and its evolutions.
When is the first version available for testing?	The first version of the system available for users (V1+ version) will be delivered in June, The version of the system shown in the previous demonstration is a test version for development. We do not ensure its availability 24h on 24 because servers may be down for tests.
Can we download the system and install it for testing?	No need to download for the moment because the system is available with a web interface. Once we have next version, It may

	be tested anytime from the web address.
When will there be a first version using video content?	The video interface should be available for demonstration in June. However, this module will not be included in the V1+ version of the integrated system.

15h15: discussion

Questions	Answers		
What would be the format and transmission protocol for audio and video?	Selecting this will be one of the actions within VITALAS		
Will you normalize every video to a certain format and what video formats will be supported?			
Can we get the slides of the presentations?	Yes, all participants will be send a CD with the questionnaire and pdf versions of the presentations		
What do you use to annotate now? And how do you do it?	 (it turns out that among the different partners everybody does it differently. Unfortunately the timeframe of this session was too short to fully list this) 		
Do you need the content physically in order to process/import it? And how (filesystem?)?	It will depend on the services which are called. We use a URI throughout the process to the location of the file.		
Is there a learning mechanism (to amplify the results)?	ne Relevance feedback mechanism, audio segmentation and labelling, textual visual and cross modal concepts generation are modules of VITALAS system which involve learning processes.		
Will the others profit by the work done on other material? (e.g. will AFP profit from the work done on Belga images?)			
Are all Belga photographers asked to add conceptual metadata manually to the images? (feedback AFP: we're putting in place a vocabulary/thesaurus / Getty uses a vocabulary)	For the moment not, and due to time pressure it's very difficult for them to do so.		
Why do you put so much work in detecting the anchorman, while you have the transcript?	We have script only for few News programs In this case the existing transcripts are used as ground truth.		

→ Feedback:

The list below summarizes, next to the questions, the first feedback provided during the workshop. It can be categorized into 3 main topics: (i) positive/useful features, (ii)challenges/opportunities and (iii) integration/testing.

(i) positive/useful features:

- The advanced graphical clustering looks very useful for easily post-annotating large archives
- A very positive feature is that we can both work with a combination of text and visual queries (resulting from a tendency towards abstract queries at AFP)

(ii) challenges/opportunities:

- The challenge is how to formulate the query to obtain all info for metadata of different types
- The challenge is to recognize the voice and face of a certain person
- The focus should be on the concepts
- A big demand is how we can use (monetise) our current archives
- MXF for video / IPTC for images is preferred (needed)
- Today there's no automatic relation between transcript/subtitles and video itself

(iii) integration/testing :

- (after the question: are you willing to test VITALAS?): Some of the German broadcasters first have to discuss internally how VITALAS fits in. Belga, INA and AFP are willing to test the system
- *(about the integration)* For the moment most participants have separate systems in place which are targeted at specific tasks, but they don't have an integrated system

3.4 QUESTIONNAIRE

The full questionnaire can be found in Annex 2.

The questionnaire is divided into three parts: (i) general questions about the participant and his or her organisation, (ii) the current systems in use and (iii) the expectations from VITALAS.

The questionnaires were handed out after the lunch break and participants were invited to fill them in during the second part of the session. At the end of the workshop we collected some copies, but in order to allow participants (or their colleagues) to fill it in properly we suggested them to send it in later. Each content partner is now collecting all questionnaires from their respective representatives.

The results of the questionnaire will be exploited within WP1 and WP10, and will be used to optimise the training efforts in WP9 training.

The outcome of this questionnaire is intended to be more useful for WP10 market investigation and exploitation. Specific for WP1 and the definition of success criteria, those participating in that workpackage will develop a more elaborate questionnaire which focuses more on these aspects.

3.5 DIFFUSION

All workshop material and supporting media has been bundled in pdf-format on the VITALAS BSCW server. A CD-Rom bundle has been sent to all participants. In addition, we will disseminate the agenda and questionnaire on the VITALAS website.

4 CONCLUSION

The awareness workshop is considered a success. We have successfully familiarised key representative VITALAS users with the context for VITALAS, and shown why the VITALAS system is relevant to them; this community has demonstrated a strong interest in learning how VITALAS can help them in their work.

"Users' interest has been focused on four main aspects: (i) use and performance of advanced funcionalities, (ii) relationship with existing systems and formats, (iii) architecture specification and (iv) next steps and dates to to test the system. "

This engagement with a wider community, at this stage of the project, is considered to be extremely valuable. It can (i) ensure that technical developments continue to meet user needs (ii) facilitate testing with real users in real environments and (iii) help in 'market positioning' of VITALAS.

We fully intend to maintain the links forged with this community. The next workshop will centre around VITALAS version V1+, and content owners will be able to test the system at this event.

ANNEX 1: awareness workshop invitation





a tutorial to next generation multimedia search engines

VITALAS Awareness workshop, February 21, 2008 at IRT premises (Munich, Germany)

Dear,

We are glad to invite you to our free awareness workshop 'a tutorial to next generation multimedia search engines'. Through this one day workshop we will update you in an interactive, pragmatic manner on the latest evolutions on picture -, audio- and video search and (semi) automatic annotation engines.

Best regards,

Nozha Boujemaa

VITALAS Scientific Coordinator

Participants: users from IRT, INA, Belga and AFP, as well as their "close user community"

Date: February 21, 2008

Location: Institut fuer Rundfunktechnik GmbH (IRT), Floriansmühlstrasse 60, 80939 Munich, Germany.

How to get there? http://www.irt.de/en/irt/directions.html

Subscription: confirm your attendance by email to Tom Wuytack (<u>wut@belga.be</u>) before February 15

Program:

10h30: welcome (Christoph Dosch, IRT)

- welcome word + introduction agenda

10h45: challenges, context and objectives (Christoph Dosch, IRT)

- what's the general context of new multimedia search engines? What are the objectives for both picture, video, audio search and annotation? How does VITALAS fit in?

11h15: the not so far future of picture search and annotation (Tom Wuytack, Belga)

- examples and demo's of current technologies/evolutions on picture search and - annotation and how VITALAS will address these

12h00: lunch

13h15: next generation multimedia search engines (Peter Altendorf, IRT)

- examples and demo's of current technologies/evolutions on audio-/video search and - annotation and how VITALAS will address these

14h15: will technology follow? (Bruno Grilhères, EADS)

- a userfriendly overview of general architecture, state of the art techniques on integration and applicability within existing environments

14h30: coffee break

14h45: next steps and perspective (Marie-Luce Viaud, INA)

- planning of VITALAS, what users can expect and when

15h15: discussion

16h00: end of workshop

About Vitalas:

VITALAS is an innovative project designed to provide advanced solution for indexing, searching and accessing large scale digital audio-visual content.

The strength of this initiative relies on the capacity of the project to confront its technology to real use-cases, reflecting the joint concerns of two major European content providers.

As a user-centric system, VITALAS will benefit from a strong involvement of content providers and from external user trials, besides the internal evaluation of individual technological components. The project will therefore develop new technological functionalities and services to facilitate access to multimedia content in large databases.

More info on VITALAS: http://vitalas.ercim.org



ANNEX 2: awareness workshop questionnaire

VITALAS Awareness Workshop, February 21, 2008

IRT, Munich, Germany

QUESTIONNAIRE

VITALAS aims at providing a multimedia (text, image, audio, video) annotation and search tool for different types of users/companies. One the one hand we want to provide tools to support archivists, editors in their annotation work. On the other hand third-party customers who would like to use VITALAS annotation results and search features to e.g. better exploit their pictures/video archive.

Based on the results of this and other questionnaires we plan to define the most important success criteria for VITALAS and do a follow-up study on the specific requirements organizations have on archival and search of audio-visual material, and to what extent they are covered by available commercial systems.

We thank you in advance for your collaboration.

1) General questions / organization details

- Your first name and surname:

- What is the name of the organization you work for, and it's activity?

- What is your function/responsibility within your organization?

- Your e-mail address:

- Are you, within your organization, involved in evaluating and/or purchasing search or indexing software?

Yes, I am	
The responsible person is	
(please indicate name+email address)	

May we have permission to contact you in the future to ask for your experiences with search and indexing software? (Approximately 15-20 minutes questionnaire). If you feel somebody else in your organization is better qualified to answer these questions, we would be grateful if you can provide us with the contact details of this person.

Yes, you may contact me	
(please indicate name + email address)	
Please contact instead	
(please indicate name + email address)	
No, you may not contact us	

2) <u>Current system(s) you are using</u>

2.1 Do you know the name of the system or systems you use to search for images or videos, or to annotate images or videos?

We use the following systems:

2.2 Please specify the type, size and growth rate of your audiovisual archive

Туре	yes	no	Current size	Grow-rate
Image				
Video				
Audio				

2.3 Do you use any of these products within your organisation, or have you heard of any of these products? Please check which boxes apply.

	We have this product in our organisation	I have used this product	
Virage (e.g. VS Archive)			
Autonomy (e.g. IDOL)			
IBM (Marvel)			
Fotoware (Fotostation)			
<i>Oracle (Oracle Multimedia)</i>			
iView (Media Pro)			
NewPhenix (NewPhenix Picture)			
VIMA (VIMA Search)			
PixSearch			
SAIL Labs(Media Indexer)			
Blue Order (Media Archive Pro)			
Canto (Cumulus Video Suite)			
North Plains (Telescope Video Studio)			
Other			

3) Your expectations regarding VITALAS system

3.1 what are your favorite search and annotation tools/systems today? And explain shortly which aspects of it you like in particular

My favorite tool/system	Aspects I like in particular

3.2 have you identified or are you aware of any (other) features that you would like to be used in VITALAS system?

feature/technology	Why?

3.3 Please answer the following questions with yes, no or maybe?

	yes	no	maybe
<i>I would use VITALAS as an additional tool in my organisation</i>			
<i>I consider abandoning my current tools if VITALAS provides a better alternative</i>			
<i>I need VITALAS to interact with my current environment (e.g. as a web service)</i>			
<i>Do you think you would agree on a yearly license fee similar to other (established) search engines is ?</i>			
I prefer to use VITALAS as a web application			
<i>I prefer to use VITALAS as a desktop application</i>			

3.4 Do you have other requirements/idea's/suggestions/remarks you like to share with us...? Please let us know here!

Thanks for your cooperation !