Project no. 033104

MultiMatch

Multilingual / Multimedia Access to Cultural Heritage

Technology-enhanced Learning and Access to Cultural Heritage
Instrument: Specific Targeted Research Project
FP6-2005-IST-5

Final Plan for Using and Disseminating the Knowledge

Start Date of Project: 01 May 2006
Duration: 30 Months

Project Coordinator: Pasquale Savino
Organisation Name of Lead Contractor for this Report: Alinari-24 ORE S.p.A-.

Version Final

List of Partners

Partic. role	Partic. no.	Participant name	Participant short name	Country	Date entered project	Date exit project
CO	01	Istituto di Scienza e Tecnologie dell'Informazione, Consiglio Nazionale delle Ricerche	ISTI-CNR	IT	month 1	month 30
CR	02	University of Sheffield	USFD	UK	month 1	month 30
CR	03	Dublin City University	DCU	IE	month 1	month 30
CR	04	University of Amsterdam	UvA	NL	month 1	month 30
CR	05	University of Geneva	UniGE	CH	month 1	month 30
CR	06	Universidad Nacional de Educación a Distancia	UNED	ES	month 1	month 30
CR	07	Alinari 24 ORE S.p.A[1]	ALINARI	IT	month 1	month 30
CR	08	Stichting Nederlands Instituut voor Beeld en Geluid (Netherlands Institute for Sound and Vision)	BandG[2]	NL	month 1	month 30
CR	09	Biblioteca Virtual Miguel de Cervantes, University of Alicante	UA	ES	Entered at month 9	month 30
CR	10	OCLC Ltd[3]	FDI	UK	month 1	month 30
CR	11	WIND Telecomunicazioni S.p.A.	WIND	IT	month 1	month 30

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[1] Previously Fratelli Alinari Istituto Edizioni Artistiche S.p.A; Alinari was taken over by Sole 24 Ore SpA on 1 October 2007; the new name is Alinari 24 ORE S.p.A

[2] Although the official acronym for this institution is BandG, it is often referred to within the project as Sound & Vision.

[3] Initially Fretwell-Downing Informatics (FDI); FDI was taken over by OCLC PICA at the moment of accession to the contract. The correct name of this partner is now OCLC but the acronym FDI is used in the Technical Annex (DoW).

Table of Contents

Section 1 Exploitable Knowledge[4] and its Use

A preliminary remark concerns the definition of the exploitation for a research project like MultiMatch.

1. MultiMatch's primary scope is to impact the **research field**. The main effect of the MultiMatch project is expected in the research/testing field and in the evaluation of research activities. MultiMatch results will benefit directly and indirectly research groups, industrial partners, content providers

2. The second channel for the exploitation of the results is represented by the use of MultiMatch in **specific applicative projects.**

3. Finally MultiMatch could provide products and services for **commercial exploitation.** MultiMatch could exploit some specific components or the complete system. We are able to provide a definition of which components and services can be offered, suggesting related exploitation opportunities, but at present the MultiMatch project can not be exploited as a complete system: additional functionalities should be integrated and further work is needed to engineer MultiMatch (production of documentation, engineering of the components and of the system). We believe MultiMatch technologies could have a market impact in the coming years.

Deliverable 8.2.1 Initial exploitation planning report and market survey (preliminary version): delivered August 2006;

Deliverable 8.2.1 Initial exploitation planning report and market survey (final version): delivered June 2007[5];

Deliverable 8.2.2 Final exploitation planning report and market survey[6]: to be delivered December 2008

The initial exploitation plan   (Del. 8.2.1) defined the exploitation strategy and methodology to be put in place in order to introduce the project outcomes into the market strategies. The overall system as well as individual components were considered. A survey of the competitive solutions on the market was carried out and a first outline of the market analysis of the business targets that the project intended to address was defined. The plan focused on the benefits that MultiMatch could offer to end users and content suppliers. Attention was also paid to Sociological, Technical, Economic and Political (STEP) issues, to Strengths, Weaknesses, Opportunities, Threats, (SWOT) issues and to the exploitation Risk Analysis. An initial IPR report was defined.

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[4] [4] ***Knowledge:*** means the results, including information, whether or not they can be protected, arising from the *project* governed by this *contract*, as well as copyrights or rights pertaining to such results following applications for, or the issue of patents, designs, plant varieties, supplementary protection certificates or similar forms of protection (Article II.1.14 of the contract)

[5] There was a contradiction in the DoW Initial and final exploitation planning reports and market surveys are scheduled at 3 and 18 months. However, effort for this task only begins at month 12. For this reason, a preliminary version of the initial exploitation plan was produced at month 3 containing a description of the approaches that would be adopted for exploitation, and a final version of this plan was produced month 12.

[6] It was agreed with the Commission reviewers to prepare and consign this deliverable at month 27, rather than month 18. This would make much more sense in the context of the project activities and would lead to a more viable deliverable.

The final exploitation plan (D.8.2.2) updates the previous MultiMatch exploitation plan, detailing how the project results can be exploited: how MultiMatch can impact the research field, how it can be employed in specific applicative and how it could provide services for commercial exploitation. D8.2.2 defines which are the exploitable products of MultiMatch, how they could be exploited and which are the constraints of such exploitation. It updates and summarises the intellectual property analysis and describes opportunities for end users and content providers drawing scenarios for future exploitation. It reports individual and joint partners' exploitation plans. The document also reviews the external environment, considering the impact of changes in MultiMatch competitors and potential partners and explores the segmentation of the markets where MultiMatch may operate.

The project exploitation has been coordinated with dissemination activities in order to promote the adoption of the project "vision" and to demonstrate the feasibility of the project approach. Through dissemination events useful contacts have been collected for exploitation purposes (see list of events section 0)

1.1 Exploitable Results

Exploitable results are defined as knowledge having a potential for industrial or commercial application in research activities or for developing, creating or marketing a product or process or for creating or providing a service.

MultiMatch can be exploited for the: technology, services implemented, components developed and contents provided.

The following tables present an overview of MultiMatch exploitable results: actual exploitable components, services, contents, with information related to the sector of application, ownership, timetable for commercial use, way of exploitation. Information on IPR related issues are provided in section 1.3.

Exploitable result	Exploitable Knowledge	What is Exploitable	Sector(s) of application	Timetable for commercial use	Owner & Other Partner(s) involved	Way of Exploitation
Hybrid Translation and Interactive Hybrid Translation components	Provide (interactive) domain specific translations of content and queries		Cultural Heritage		**DCU**	
Text Segmentation Tools	Segment running text into semantically related regions	Software component	Text indexing		**DCU**	Module or service
MultiMedia Server + Content Cache + MultiMedia Digital Library Service + Metadata Record Store + Metadata Repository Query Engine + MILOS XML Search Engine	Manages the storage of multimedia documents and related metadata and supports their content based retrieval	Software component.	Cultural Heritage, Digital Libraries	Mid 2009	**ISTI-CNR**	-Directly (spin offs) -Indirectly (licensing)
GUI Translation Wizard.	Allows the user to change query translation in a interactive way	Software component	Add interactive translation functionality to any type of search system		**UNED**	-Directly (spin offs) -Indirectly (licensing)
Overview User Interface.	Allows the user to formulate multilingual queries	Software component	User interface for Multilingual search engines		**UNED**	-Directly (spin offs) -Indirectly (licensing)
Specialized User Interface.	Allows the user to explore the content from a specific media point of view.	Software component	User interface for Multilingual & Multimedia search engines		**UNED**	-Directly (spin offs) -Indirectly (licensing)
Faceted Browser	Allows to explore creators and creations using facets.	Software component	User interface for Multilingual & Multimedia search engines		**UNED/ USFD**	-Directly (spin offs) -Indirectly (licensing)

Video Browser	Allows exploration of video content.	Software component	User interface for multimedia search engines		**UNED**	-Directly (spin offs) - Collaboration with B&G to exploit the interface for a new in-house service
MILOS fusion plugin	The plugin allows for combined search of visual and textual data. It includes a data exchange protocol tailored for multimodal retrieval to connect to UNIGE's search service	Plugin code source	Multimodal information management	2008	**UNIGE**	In association with the MultiMatch system and licensing UNIGE's search service
MultiMatch image collection browser	The browser includes an interface to allow for the browsing of multimedia collections by connecting to UNIGE's service	Interface source code	Multimodal information management	2008	**UNIGE**	In association to the MultiMatch system and licensing UNIGE's service
Gathering feed-based data	Generalized mapping of feed-based data to standard	Architecture for data gathering	Dynamic feed-based data	2009	UvA	Service or module

Table 1: Exploitable results Overview table

1.2 Exploitable Content

Type of content	Sources	Totals (PT1+PT2)
Dynamic[7] resources collected from feeds (text-based feeds and feed items)	WWW (UvA)	> 25,000
Constrained Focused[8] Crawl (Web pages)	WWW (UvA)	>130,000
Metadata - Web	BVCM Il Sole 24 Ore	>2,600
Metadata - Text	BVCM Israel National Library Austrian National Library OAI (Alinari), MICHAEL Alinari, BandG	>280,000
Still images	Alinari, AISA (Alinari)	> 12,000
Video	BandG, Alinari, TecheRAI (Alinari)	>570
Audio podcasts	WWW (UvA)	>100 h

Table 2: Exploitable content

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[7] Collection is ongoing, this volume has been reached on the 1st of September 2008.

Estimated growth > 1,000 items per week.

[8] Pages labelled for the Constrained Focused Crawl Classifier: Alinari 300, BVMC 300, UvA 900

1.3 IPR issues

1.3.1 IPR related to Technology

IP[9] generated before MultiMatch

Partner	Description of IP generated before MultiMatch and now in use in MultiMatch	Date of creation	IP type[10]	IP form [11] (if patent, give filing number)
DCU	Acemedia Toolkit	2003-present	Software	Not available
DCU	Video Analysis tools	1999-present	Software	Not available
ISTI-CNR	MILOS (see project Consortium Agreement)	Not available	Software	Open source – public domain
UNIGE	GIFT: a complete content-based image retrieval system	2001	Software	GNU Licence
UNIGE	Vicode: a complete content-based multimedia retrieval system	2006	Software	Academic prototype
UNED	GUI Translation wizard	2005-present	Software	Not available
UvA	Ssscrape: Environment for collecting and processing feed-based data	Not available	Software	Not available

Table 3: IP generated before MultiMatch

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[9] IP owned by partners or used by partners but belonging to external subjects (if the information is not provided we write: 'Not available').

[10] Methods (A method is a solution to a given problem, consisting in a clear suite of one or several steps. The method should be new and represent an inventive step, i.e. not deduced easily from state of the art knowledge and by specialists of the domain.)..Software(Software means a software program being sequences of instructions to carry out a process in, or convertible into, a form executable by a computer or similar device or hardware in the form of applications, components and libraries, and fixed in any tangible medium of expression.).

[11] Public disclosures (conferences, workshops, journals, books, courses, web site, etc). Patents (A patent is a temporary right for exploitation granted by a country to the patent holder who has to publish its content as a counterpart. A patent has validity up to 20 years. The IP disclosed as a patent has to be new and represent an inventive step over the state of the art). Trade secrets (Trade secrets consist of information not generally known or readily ascertainable that allows a company to compete effectively. Trade secrets may include pricing, costumers, strategies, finances, manufacturing and production processes, not patented product inventions).Trade marks. Software. System designs and architecture. Internal project documents, reports, drawings, emails etc.

Partner	Description of Partners own IP generated within the MultiMatch project	Date of creation	IP type	IP form (if patent, give filing number)
OCLC	MultiMatch Search Service	April 2007	Software	Software
OCLC	MultiMatch Meta Data Repository Store	April 2007	Software	Software
OCLC	MultiMatch File Binding Component	April 2007	Software	Software
OCLC	MultiMatch Content-Driven Processing Rules	April 2007	Software	Software
UNIGE	MultiMatch browsing interface	April 2007	Software	Software

Table 4: Partners own IP generated during MultiMatch

Competitor	Description of the external IP	Date of creation	IP type	IP form (if patent, give filing number)	Reference (link)
WorldLingo	Machine translation system	Unknown	Software	Unknown	www.worldlingo.com
The Getty	Getty Vocabularies	Unknown	Vocabularies	Unknown	http://www.getty.edu/research/conducting_research/vocabularies
Nuance	Nuance Dragon Naturally Speaking 9 SDK Server Edition Speech Recognition	Unkonwn	Software	Unknown	http://www.nuance.com/audiomining/sdk/

Table 5: External IP affecting the MultiMatch project

1.3.2   IPR related to Content

Duration of usage license for MultiMatch contents:

Alinari images: With no defined temporal limitation for the local Alinari prototype (on local servers), the time limitation for other installations is defined by CA.

Alinari videos: 3 years after the end of the project, can be renewed on demand

AISA images: Until one year after the project end.

ONB images: Limited to the project life time.

BandG videos: As defined by the CA

Teche RAI videos: Limited to 12 months after the end of the project

BVMC texts: As defined by the CA

TEL texts: Public domain, no time limitation.

MLA- MICHAEL Plus (UK) texts: Public domain, no time limitation

Il Sole 24 ORE texts : Two years after the end of the project

The Israel National Library texts : Public domain, no time limitation

Wikipedia texts (UVA): MultiMatch Web Research Collections Usage Agreement

Dynamic resources collected from feeds (**UvA):** MultiMatch Web Research Collections Usage Agreement **OAI (Alinari):** Public domain, no time limitation.

Section 2 Dissemination of Knowledge

MultiMatch aimed at developing a search engine specialized for the CH domain; it was expected, however, that the project would have an impact beyond the boundaries of cultural heritage domain, wherever there was a need for complex, domain-specific multilingual search. An adequate and appropriate dissemination of the project results has been crucial in this respect in order to guarantee that information on the project results was disseminated not just to the initially targeted user communities but also to the wider potentially interested society. A detailed dissemination plan was prepared at the beginning of the project and was maintained throughout the entire project period and updated to reflect possible refocusing of the scientific, technical, users' oriented and business work.

The strategy, methodology and dissemination instruments outlined in the dissemination plans were employed by the project consortium to reach MultiMatch user groups/scientific communities and create contacts for the exploitation of the project results. In particular the dissemination activities aimed to: increase awareness of the MultiMatch system and its potential benefits for people interested in or working in the Cultural Heritage domain; encourage CH institutions and content providers to become members of the MultiMatch user groups and to provide content to the MultiMatch archives; obtain feedback from them on the evaluation of the MultiMatch prototypes; investigate the possibility of future exploitation of the project outcomes.

Deliverable 8.1.1 Initial plan for using and disseminating knowledge (delivered August 2006)

Deliverable 8.1.2 Final plan for using and disseminating knowledge (delivered December 2007).

The dissemination activities were based on several disseminations instruments (web –based and paper based).

The following subsections provide relevant details (such as dates, quantitative data, references, web addresses) on such activities and instruments employed.

2.1   Overview Table

The following table gives an overview of the activities that have taken place during the project lifetime. The description of each activity is given in detail in the following subsections.

Planned/actual Dates	Type of activity	Type of audience	Countries addressed	Size of audience	Partner responsible/involved
Mths 1 - 30	Project brochures	General	Worldwide distribution	large	ISTI-CNR, Alinari
Mths 7 - 30	Participation in Conferences / Workshops	Research & Industry	Belgium. Canada, Czech Rep., Hungary, Italy, Portugal, Netherlands, U.K., Germany, France, USA, China, Asia, Slovenia, Spain, Denmark, Greece	variable	All (see section 1.1.2)
Mths 1 - 30	Market competitors monitoring	Research & Industry	The Netherlands, UK, Germany, Italy, Denmark, Cyprus	variable	Various

Mths 15, 18, 19, 26, 27	Attendance at open days, focus groups, seminars, research visits	Industry, general public, higher education researchers, CH professionals, tourist user groups	UK, Spain, China, Germany, Ireland, Italy, The Netherlands, Asia	variable	USFD, UA, UNED,DCU, BVMC, ISTI-CNR, ALINARI (section 1.2.3)
Mths 3, 19, 20, 29, 30	Organisation of MultiMatch Workshops	Research, Educational, CH, markets	Israel, Italy, Germany, Denmark, Cyprus.	variable	Various (see below for details)
Mth 18	Press Releases	General public	Spain, Italy	large	Alinari, BVMC, ISTI-CNR (section 1.2.9)
Mth 14 & 29	Sponsorship of event	Research	Czech Rep., Denmark	variable	Alinari
Mths 1 - 30	Project website	Publicly available	worldwide	Large	ISTI-CNR, Alinari
Mths 7 - 30	Collaborations and clustering	European projects	Various	Variable	All (section 1.2.11)
Mths 4 - 30	Articles, conference/ workshop papers	Research	Various	Large	Various(see section 1.2.7)
Mths 1 - 30	User group contacts (direct e-mailing, phone calls, face-to-face meetings, conferences)	Education / CH professionals / Tourist	Europe	Variable	Alinari (see section 1.2.12)
Mths 1-30	Newsletters	Research	International	Large	ISTI-CNR

2.2 Project Presentations / Representation at Events

Date	Place	Event	Link	Description
October 2008	Napa Valley, California	ACM 17th Conference on Information and Knowledge Management (CIKM 2008),	http://www.cikm 2008.org/	Paper presented by UvA.
October 2008	Würzburg, Germany,.	FGIR Workshop Information Retrieval (WIR 2008),	http://lwa08.info rmatik.uni-wuerzburg.de/Wi ki.jsp?page=FGI R08	Paper presented by UvA

October 2008	Napa Valley, California	Second Workshop on Information Credibility on the Web (WICOW 2008).	http://www.cikm2008.org/	Paper presented by UvA.
September 2008	Aarhus, Denmark,	CLEF 2008 Workshop, Workshop on Cross-Language Information Retrieval and Evaluation,	http://www.clef-campaign.org/	Papers presented by DCU, UvA
July 2008	Singapore, Asia	SIGIR 2008 Workshop on Analytics for Noisy Unstructured Text Data (AND 2008)	http://www.sigir2008.org/	Paper presented by UvA
July 2008	Singapore, Asia	31st Annual International ACM SIGIR Conference (SIGIR 2008)	http://www.sigir2008.org/	Paper presented by UvA
24 July 2008	Singapore, Asia	2nd SIGIR Workshop on Searching Spontaneous Conversational Speech (SSCS 2008),	http://ilps.science.uva.nl/SSCS2008/	Paper presented by UvA, DCU
21-25 July 2008	Patras, Greece	18th European Conference on Artificial Intelligence (ECAI 2008),	http://www.ece.upatras.gr/ecai2008/	Paper presented by UvA
18-20 June 2008	London, UK	Sixth International Workshop on Content-Based Multimedia Indexing	http://cbmi08.qmul.net/	Paper presented by UvA, DCU, Beeld en Geluid
15-20 June 2008	Columbus, Ohio, (Association for Computational Linguistics)	ACL-08: HLT	http://www.ling.ohio-state.edu/acl08/	Paper presented by UvA
5 - 7 June 2008	Slovenia	Culture on line Conference	http://www.ekultura.si/	ISTI-CNR MultiMatch project presentation. Dissemination of the project.
1 June 2008	Tenerife-Spain	SIEDL2008, First Workshop on Semantic Interoperability in the European Digital Library ,	http://multimedia.semanticweb.org/siedl/	Presentation by B&G
21-25 April 2008	Beijing China,	WWW2008,17th International World Wide Web Conference	http://www.www2008.org/	DCU

14-15 April 2008	Maastricht- the Netherlands	DIR 2008 – 7th Ditch-Belgian Information Retrieval Workshop	http://www.ltci.ugent.be/DIR2008/index.php?page=cfp	Paper presented by UvA
9-12 April 2008	Montreal, Canada	Museums and the Web Conference	http://www.archimuse.com/mw2008/	USFD & ISTI-CNR presented a demo of the MultiMatch system
30 March – 3 April 2008	Glasgow, UK	ECIR 2008-30th European Conference on Information Retrieval	http://ecir2008.dcs.gla.ac.uk/	Papers presented by DCU, USFD & UNED,
25-26 Feb 2008	Rome, Italy	EPOCH Final Event	http://www.epoch-net.org/	ISTI-CNR presented the MultiMatch project
31 Jan – 1 Feb 2008	Frankfurt am main, Germany	EDL Project Conference	http://www.edlproject.eu/conference	ISTI-CNR represented MultiMatch
11 Jan 2008	Hyderabad, India	CLIA-2008 Workshop	http://search.iiit.ac.in/CLIA2008/index.html	Paper presentation prepared by DCU
29-30 October 2007	Rome, Italy	DILIGENT 2007.Workshop-"European Information Space: e-Infrastructures, Services and Applications"	http://www.diligentproject.org/index.php?option=com_content&task=view&id=195&Itemid=235	MultiMatch presentation by ISTI-CNR
24-26 October 2007	Toronto , Ontario, Canada	ICHIM 2007- International Cultural Heritage Informatics Meeting	http://www.archimuse.com/ichim07/	Paper presented by USFD & BandG
16-21 September 2007	Budapest, Hungary	ECDL 2007-11th European Conference on Research and Advanced Technologies on Digital Libraries.	http://www.ecdl2007.org/	A MultiMatch poster prepared by ISTI-CNR and UNED was presented
13-14 September 2007	Gent, Belgium	VVBAD Conference-Information 2007	http://www.vvbad.be/informatie2007	MultiMatch presentation by BandG
10-14 September 2007	Modena, Italy	ICIAP 2007- International Conference on Image Analysis and Processing	http://www.iciap2007.org	ISTI-CNR participated with a paper on MultiMatch
September 12-14, 2007	The Hague, Netherlands	EDLNET-European Digital Library Thematic Network	http://www.europeandigitallibrary.eu/edlnet/	MultiMatch presentation by ISTI-CNR
7-8 September 2007	Lisbon, Portugal	International seminar – Disclosure and preservation: Fostering European Culture	http://bnd.bn.pt/seminario-conhecer-	ISTI_CNR presentation " Interoperability and Multilinguality:

		in the Digital landscape	preservar/index eng.html	Guaranteeing Information Access over Language Boundaries"
23-27 July 2007	Amsterdam-The Netherlands	SIGIR 2007-30th Annual International Conference	http://www.sigir 2007.org/	Two Paper presentations (UVA and DCU)
9-11 July 2007	University of Amsterdam-The Netherlands	CVIR 2007-ACM international Conference on Image and Video Retrieval	http://www.civr2 007.com/	Paper presentation UvA
28 June 2007	Prague, Czech Republic	LaTeCH 2007 Language Technology for Cultural Heritage Data	http://ilk.uvt.nl/la tech07/	DCU presented paper on MultiMatch MultiMatch (through Alinari) is official sponsor of LaTECH 2007
6-10 June 2007	Florence-Italy	CEPIC (Coordination of European Pictures Agencies Press Stock Heritage)	http://www.cepic .org/	MultiMatch presentation by Alinari
31 March 2007	Pistoia, Italy	CH workshop, EVA Pistoia		Alinari: project dissemination (brochure distribution) and contacts collection
17-20 March 2007	Hannover	CeBIT,		Alinari: project dissemination (brochure distribution) and contacts collection
13-15 February 2007	London , UK	Search Engine Strategy conference		Alinari: project dissemination a(brochure distribution) and contacts collection
29-30 January 2007.	Padova, Italy	3rd Italian Research Conference on Digital Library Systems		ISTI-CNR presented a paper on MultiMatch activities http://ims.dei.unipd.it/events /2007/ircdl/3rd-IRCDL-program.html
14-15 December 2006.	Florence, Italy	On-line Cultural heritage		Project dissemination by Alinari (brochure distribution)
4-5 December 2006.	Rome, Italy	MICHAEL . International Conference Museums libraries and archives online		Poster presentation and distribution of brochures. Contacts with potential user groups

1 December 2006	Utrecht, NE	Workshop of Dutch-funded CATCH project (Continuous Access to Cultural Heritage)		UVA participated in the workshop for Clustering activity
27-28 November 2006	Vienna (Austrian National Library)	EDL workshop		presentation of the project by BandG
14-15 Nov 2006	Rome, Italy	Multi-quality Approach to Cultural Heritage		presentation of the project by ISTI-CNR
8-10 November 2006	Amsterdam, The Netherlands	Infotrends Amsterdam: Digital Imaging '06		Alinari: project dissemination (brochure distribution) and contacts collection
31 October 2006	Florence, Italy	JPSEARCH meeting		Alinari: contribution to standard+ project dissemination
28 October 2006	Florence, Italy	Alinari museum opening-day		Alinari: project dissemination (brochure distribution)
18-19 October 2006	China	The Europe-China Conference on Intellectual Property in Digital Media (IPDM06)		Alinari: project dissemination (brochure distribution)
21-24 September 2006	Budapest, Hungary	Cost 292/IEEE conference		Alinari: project dissemination (brochure distribution)
13-15 September 2006	Paris, France,	Apple EXPO		Alinari: Face-to-face Meetings with exploitation scope; brochure dissemiation during the event.
29-30 June 2006	Luxembourg	DigiCult All Projects Meeting		presentation of the project by ISTI-CNR

2.3   Participation in Focus Groups, Seminars, Research visits, Forums

- During the seminar: "Buscadores y la investigación en humanidades Dirigido por José Antonio Millán" held on 11 June 2008 in Pinar- Madrid- Rafael Carrasco (UA) gave a talk with the title: "¿Qué buscamos en una biblioteca digital?". The topic was about search engines, including MultiMatch.
  http://cedros.residencia.csic.es/docactos/4150/programa_de_mano/programa_de_mano04150001.pdf,
- During a seminar held in the School of Computing- National University of Singapore, on 31st July 2008, Gareth J.F.Jones (DCU) gave a talk about the MultiMatch project: "The MultiMatch Project: Searching Multilingual Multimedia Cultural Heritage Collections.
- Joint meeting with ethnoArc, Pasquale Savino (ISTI-CNR) introduced the MultiMatch project and discussed possible cooperation with etnoArch, Berlin, March 13, 2008.
- Seminar targeting the tourist user group, Julio Gonzalo (UNED) and Rafael Carrasco (UA) introduced the MultiMatch project, Alicante, Spain, November 26-28, 2007.
- Seminar at the Dublin Computational Linguistics Research Seminar Serie (DCU), Dublin, Ireland, 7 December 2007.
- Research visits and seminars: Microsoft Research Asia, Beijing, China. Inst. of Computing Technologies, Chinese Acad. of Sci., Beijing, China, October 2007, DCU.
- Chamber of Commerce open day at University of Sheffield, Sheffield, UK: Jennifer Marlow (USFD) gave a talk about MultiMatch at a University of Sheffield event called "Innovate" that targeted the Chamber of Commerce, October 8, 2007.
- Focus group with MLA.The focus group was part of an MSc project on evaluating MICHAEL (esp. CLIR functionality), Sheffield, UK. Paul Clough (USFD) was involved in the focus group with Kate Fernie (MLA). MultiMatch was presented to the CH Professionals attending the event , July 18, 2007
- Focus Group USFD-MLA, London ,UK. 12 CH people attended the event; MultiMatch was presented to the CH professionals attending the event, June 26, 2007.
- Meetings with University of Florence during 2006: Presentation of the MultiMatch project by Alinari.
- BandG participated in the Collectiewijzer steering board (consortium of Dutch national museums and archives) www.collectiewijzer.nl. MultiMatch was presented to this steering board in September 2006 .
- A collaboration was established by BandG between MultiMatch and DEN (Cultural Heritage Netherlands). D2.1 is available on the homepage of their website www.den.nl. The work was mentioned in the DEN Conference, held in 2006 in Rotterdam. Other websites picked up this news (see,   for   example: http://forum.archieven.org/index.php?PHPSESSID=6a98ebc11ea74b70beb9066c3fcc94f3&topic=6828.new
- Meeting in Florence (Alinari) with Mr. Siro of Autonomy Italy- a multimedia search engine company- to talk about business strategies, 12 September 2006.
- Marketing forum in Southampton (UK), 6-9 September 2006. Alinari met four streams (Brand Strategy, Consumer Dynamics, Media Landscape, The Marketer) covering all the latest developments and key issues within the marketing world. Discussion for marketing opportunities and cooperation strategies with several delegates were carried out; project brochures where distributed; meetings with many marketing managers including Tiscali UK, AOL UK, Getty UK, Fiat car Italy took place.

2.4   Organisation of Workshops

Our strategy in organizing the Workshops was influenced by the need to address different target communities (educational user group, CH user group, general public- tourism - user group, scientific community, Digital Library community)

1. Joint DELOS-MultiMatch workshop on *'Semantic-driven Interoperability for Digital Objects in the Cultural Heritage Domain'* [12]held in Tirrenia, Pisa, 15 February 2007, in conjunction with the DELOS conference. The workshop was oriented towards the Cultural Heritage and the Digital Library research communities. The original idea for organising this workshop resulted from early discussions within MultiMatch and more specifically in the group working on the definition of the most appropriate metadata schema and overall conceptual framework for the diverse types of information that would be handled by the project. The intention was investigate the current state-of-the-art, and discuss those issues that currently hinder the widespread adoption of standards and impede interoperability; thus providing useful input for the MultiMatch metadata working group. The workshop was organised by ISTI-CNR and was attended by about 40 researchers and practitioners in the IT and cultural heritage sectors. MultiMatch members from Alinari, CNR, BandG and USFD participated actively in the event. Neil Ireson & Johan Oomen presented a paper: Capturing e-culture: Metadata in MultiMatch

2. The MultiMatch workshop "*Multilingual / Multimedia Access to Cultural Heritage"[13]* was held 20 November 2007, as part of EVA/MINERVA 2007 (Jerusalem, Israel); the workshop was organized by ISTI-CNR. Johan Oomen (B&G), Jennifer Marlowe (USFD), Carol peters & Franca Debole (ISTI-CNR) presented various aspects of the project and demo of the system. The MultiMatch session represented the occasion to target the CH user group and create contacts with European projects for clustering activities: The European Library (TEL), DELOS, EPOCH, MINERVA.

3. The second workshop on *Searching Spontaneous Conversational Speech[14]* (SSCS 2008) was held in conjunction with SIGIR 2008 on 24 July in Singapore[15]. The goal of the workshop was to bring the speech community and the information retrieval community together. The workshop was not directly addressing MultiMatch, but thematically was closely linked to the project (both the audio and the video collections that were the subject of investigation in MultiMatch contained spontaneous conversational speech). One of the SSCS 2008 organizers (UVA) was from a MultiMatch consortium member. MultiMatch members submitted two papers: a full paper and a poster paper. A MultiMatch member was involved in the panel session.

4. The MultiMatch workshop "*Innovative Approaches for searching and using Cultural Heritage Information for Learning and Teaching"[16]* was held 28th November 2007 as part of Online Educa Berlin *Conference (Berlin-Germany). The workshop was mainly oriented to the underlined educational user group. Th*e Workshop was organised by Alinari in collaboration with Online Educa Berlin staff. Contributions to the organization of the event came from the MultiMatch consortium (UNED, ISTI-CNR, U.of Alicante and USFD). The workshop was the ideal context to reach the target user groups:

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[12] http://www.delos.info/index.php?option=com_content&task=view&id=524&Itemid=271

[13] http://www.digital-heritage.org.il/conferences/2007_Tuesday.html

[14] http://ilps.science.uva.nl/SSCS2008/

[15] http://www.sigir2008.org/

[16] http://www.online-educa.com/online-educa-berlin-07

Educators (instructors and teachers) who create courses and teach using multilingual elearning, resources and tools; Cultural content providers aiming to improve distribution of their content inside the educational market; Technology and service providers (multimedia and software designers) providing a bridge between educators and cultural content providers. The workshop was successfully attended by about 30 participants. Useful feedbacks on the evaluation of the PT1 were collected through the use of ad hoc questionnaires. New contacts for dissemination/ exploitation activities and evaluation scopes have been collected.

5. The MultiMatch workshop "*Multilingual / Multimedia Access to Cultural Herita*ge"[17] was held 4 December 2007, as part of the 2nd DELOS conference[18], (Tirrenia, Pisa-Italy). The event was organized by ISTI-CNR. + Presentations by Ying Zhang (DCU). The workshop was oriented towards the Cultural Heritage and the Digital Library research communities. The event represented the occasion for disseminating and exploiting the project results: collect feedback on the MultiMatch system, gather contacts with new potential content providers.

6. The Workshop on "*Information access to Cultural heritage*"[19](IACH) was held 18 September 2008 as part of ECDL (Aarhus, Denmark). It represented the occasion to target both the Digital Library and Cultural Heritage research communities. The goal of the workshop was to promote exchange of ideas concerning creation, storage, retrieval and use of cultural heritage information. In particular, the workshop focused on the question of how keepers of cultural heritage resources can improve information access by applying information technology and principles currently being developed in the area of information access. During this workshop the first prototype was demonstrated and the main results of the MultiMatch project presented. This workshop was organized by UVA, UNED, BandG.

7. The Final MultiMatch workshop: *Multilingual and Multimedia Access to Cultural Heritage Digital Objects: the MultiMatch solution*[20] was held 23 October 2008 as part of VSMM conference[21] (Limmasol, Cyprus).The main workshop's goal was to present the results of the MultiMatch project. Participants were involved in the evaluation of PT2: after the demo presentation a questionnaire collected users feedbacks and some of the participants gave their availability to participate in the MultiMatch field trails. The workshop represented the occasion to reach the CH and research community and to propose the starting of clustering activities with other European projects: IMAGINATION, EUROPEANA, MICHAEL. This workshop was organized by Alinari.

Deliverable 8.3.1: Organization of workshops was delivered (November 2007)
Deliverable 8.3.2: Organization of workshops will be delivered (December 2007)

2.5   Project Website

The MultiMatch web site was created at the beginning of the project with the following URLs: www.multimatch.eu, www.multimatch.info, www.multimatch.org. The website was updated and maintained for the entire project duration. It is hosted on the ISTI-CNR servers and the dedicated

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[17] http://www.multimatch.eu/tirrenia_12_07.html

[18] http://www.delos.info/index.php?option=com_content&task=view&id=606&Itemid=337

[19] http://ilps.science.uva.nl/IACH2008/schedule/schedule.html

[20] http://www.cs.ucy.ac.cy/conferences/vsmm2008/downloads/MultiMatch-Workshop-Agenda.pdf

[21] http://www.vsmm2008.org/

dissemination areas are hosted on Alinari's servers: (the user does not notice the passage from ISTI-CNR to Alinari servers). During the project lifetime new sections have been added and enriched.

Alinari is responsible for the "News", "Events", "Content providers", "User groups" sections. During the project lifetime the section "Content providers" has been enriched with new content providers; the "News", "Events", "User groups" sections have been continuously updated with new information.

ISTI-CNR is responsible for the publicly available areas "Homepage", "about MultiMatch", "Consortium", "Publications", Related sites", "Interesting links" and for the "Workspace" area- restricted to the project Consortium: this is a password protected area which contains all project documentation, information on meetings and phone conferences, events of interest, etc. It also includes a dynamic document management system (BSCW Basic Support for Cooperative Work). The BSCW is used to store all internal working documents, including preliminary versions of the deliverables. The project Wiki, hosted by OCLC, is used as a discussion area.

2.6   Posters/Brochures

Two project brochures have been produced. The brochure was a basic and important dissemination instrumentand has been distributed during the participation national and international events, and other kinds of meetings.

The brochures were used to: disseminate the project results, create contacts (for exploitation, clustering, etc.) consolidate the user groups. The first brochure was printed at month 3 of the project. The second brochure was produced after the released of the first prototype.

Several posters have been produced (they are downloadable on the project website). The posters were designed for three main purposes:

- presentations during events/ workshops: during exhibition sessions the posters have been of key importance for presenting MultiMatch system and results.
- web presentations
- inside company/institution dissemination.

Some posters have been designed with a particular focus on the user groups (how to become a MultiMatch registered user etc.) and with textual details; other posters have been designed to map the project goals, the technologies, results and mainly with graphics.

2.7   Publications

A list of publications of MultiMatch-related work by project partners is maintained on the website. The publications produced by the project are listed here:

1.   Besser J., Hofmann K., Larson M., "An Exploratory Study of User Goals and Strategies in Podcast Search", FGIR Workshop Information Retrieval (WIR2008), Würzburg, Germany, October, 2008.
2.   He B., Macdonald C., He J., Ounis I., "An Effective Statistical Approach to Blog Post Opinion Retrieval", ACM 17th Conference on Information and Knowledge Managment (CIKM 2008), Napa Valley, ACM, October, 2008.
3.   He J., Larson M., de Rijke M., "On the Topical Structure of the Relevance Feedback Set", FGIR Workshop Information Retrieval (WIR 2008), Würzburg, Germany, October, 2008.
4.   Tsagkias M., Larson M., Weerkamp W., de Rijke M., "PodCred: A Framework for Analyzing Podcast Preference", Second Workshop on Information Credibility on the Web, Napa Valley, ACM, October, 2008. (won the best paper award at WICOW 2008).

5. Larson M., Newman E., Jones G., "Overview of VideoCLEF 2008: Automatic Generation of Topic-based Feeds for Dual Language Audio-Visual Content (draft)", Working Notes for the CLEF 2008 Workshop, Aarhus, September, 2008.

6. E.Newman and G.J.F.Jones, "DCU at VideoClef 2008", In Proceedings of the CLEF 2008: Workshop on Cross-Language Information Retrieval and Evaluation, Aarhus, Denmark, September 2008.

7. N.O'Hare, P.Wilkins, C.Gurrin, E.Newman, G.J.F.Jones and A.F.Smeaton, "DCU at ImageCLEFPhoto 2008", In Proceedings of the CLEF 2008: Workshop on Cross-Language Information Retrieval and Evaluation, Aarhus, Denmark, September2008.

8. He J., Zhang X., Weerkamp W., Larson M., "The University of Amsterdam at VideoCLEF 2008", Working Notes for the CLEF 2008 Workshop, Aarhus, Denmark ,September, 2008.

9. Larson M., Fernie K., Oomen J., Cigarran J., "Proceedings of the ECDL 2008 Workshop on Information Access to Cultural Heritage", ECDL 2008 Workshop, Aarhus, September, 2008.

10. Carmichael, J., Clough, P., Newman, E., Jones, G. "Multimedia Retrieval in MultiMatch: The Impact of Speech Transcript Errors on Search Behaviour" On-line Proceedings of the Information Access to Cultural Heritage (IACH) Workshop, Aarhus Denmark, September (2008). http://www.multimatch.eu/docs/publications/Carmichael_etal_MultiMatch_IACH2008.pdf

11. Balog K., de Rijke M., Weerkamp W., "Bloggers as Experts", 31st Annual International ACM SIGIR Conference (SIGIR 2008), Singapore, ACM, pp. 753-754, July, 2008.

12. Balog K., Weerkamp W., de Rijke M., "A Few Examples Go A Long Way: Constructing Query Models from Elaborate Query Formulations", 31st Annual International ACM SIGIR Conference (SIGIR 2008), Singapore, ACM, pp. 371-378, July, 2008.

13. Fuller M., Tsagkias M., Newman E., Besser J., Larson M., Jones G J F., de Rijke M., "Using Term Clouds to Represent Segment-Level Semantic Content of Podcasts", In Proceedings of the Workshop on Searching Spontaneous Conversational Speech at Thirty-First Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2008), Singapore, July 2008.

14. He J., Weerkamp W., Larson M., de Rijke M., "Blogger, Stick to your Story: Modeling Topical Noise in Blogs with Coherence Measures", SIGIR 2008 Workshop on Analytics for Noisy Unstructured Text Data (AND 2008), Singapore, July, 2008.

15. Kohler J., Larson M., de Jong F M G., Kraaij W., Ordelman R J F., "Proceedings of the ACM SIGIR Workshop Searching Spontaneous Conversational Speech", 2nd SIGIR Workshop on Searching Spontaneous Conversational Speech (SSCS 2008), Singapore, Centre for Telematics and Information Technology, Enschede, The Netherlands, July, 2008.

16. Meij E J., Weerkamp W., Balog K., de Rijke M., "Parsimonious Relevance Models", 31st Annual International ACM SIGIR Conference (SIGIR 2008), Singapore, ACM, pp. 817-818, July, 2008

17. Tsagkias M., Larson M., de Rijke M., "Term Clouds as Surrogates for User Generated Speech", 31st Annual International ACM SIGIR Conference (SIGIR 2008), Singapore, ACM, pp. 773-774, July, 2008.

18. Larson M., Newman E., Jones G., "Classification of Dual Language Audio-Visual Content: Introduction to the VideoCLEF 2008 Pilot Benchmark Evaluation Task", In Proceedings of the Workshop on Searching Spontaneous Conversational Speech at 31st Annual International ACM SIGIR Conference on Research and Development in Information Retrieval, Singapore, July 2008.

19. Weerkamp W., Balog K., de Rijke M., "Finding Key Bloggers, One Post At A Time", 18th European Conference on Articificial Intelligence (ECAI 2008), Patras, Greece, pp. 318-322, July, 2008.

20. Carmichael J., Larson M., Marlow J., Newman E., Clough P., Oomen J., Sav S., "Multimodal Indexing of Electronic Audio-Visual Documnets: A Case Study for Cultural Heritage Data", Sixth International Workshop on Content-Based Multimedia Indexing(CBMI2008), London, 18-20th June, 2008.

21. Weerkamp W. and de Rijke M. Credibility Improves Topical Blog Post Retrieval In ACL08:HLT, June 2008

22. Jones G.J.F. and Li Q. "Focused Browsing: Providing Topical Feedback for Link Selection in Hypertext Browsing". In Proceedings of the 30th European Conference on Information Retrieval Research (ECIR 2008), Glasgow, Scotland, April 2008

23. Clough, P. and Read, S. "Key Design Issues with Visualising Images using Google Earth". In Proceedings of the 30th European Conference on IR Research (ECIR'08), Glasgow, UK, April 2008

24. Marlow, J., Clough, P., Cigarrán Recuero, J. and Artiles, J "Exploring the Effects of Language Skills on Multilingual Web Search". In Proceedings of the 30th European Conference on IR Research (ECIR'08), Glasgow, UK, April 2008

25. Weerkamp W. and de Rijke M. "Looking at Things Differently: Exploring Perspective Recall for Informal Text Retrieval". In: Proceedings of Dutch-Belgian Information Retrieval Workshop (DIR 2008), 14-15 April 2008

26. He J., Larson M., and de Rijke M. "Using Coherence-based Measures to Predict Query Difficulty". In: C. Macdonald et al., editors, 30th European Conference on Information Retrieval (ECIR 2008), LNCS 4956, pages 689-694, April 2008

27. Balog K. and de Rijke M. "Associating People and Documents". In: C. Macdonald et al., editors, 30th European Conference on Information Retrieval (ECIR 2008), LNCS 4956, pages 296-308, April 2008

28. Marlow, J., Clough, P., Ireson, N., Cigarran Recuero, J., Artiles, J., & Debole, F. "The MultiMatch project: Multilingual/Multimedia access to cultural heritage material on the web". In Proceedings of Museums and the Web 2008, Montreal, Canada, April 9-12, 2008

29. Jones G.J.F., Fantino F., Newman E. and Zhang Y. "Domain-Specific Query Translation for Multilingual Information Access Using Machine Translation Augmented With Dictionaries Mined From Wikipedia". In Proceedings of the 2nd International Workshop on Cross Lingual Information Access - Addressing the Information Need of Multilingual Societies (CLIA-2008), Hydrabad, India, pp 34-41, January 2008.

30. Kludas J., Bruno E., and Marchand-Maillet S. "Can Feature Information Interaction help for Information Fusion in Multimedia Problems?" In Proc. of the first International Workshop on Metadata Mining for Image Understanding (MMIU), Funchal, Madeira, January 2008

31. Snoek C.G.M., Huurnink B., Hollink L. , de Rijke M., Schreiber G., and Worring M "Adding Semantics to Detectors for Video Retrieval" IEEE Transactions on Multimedia 9(5):975-986, August 2007 http://staff.science.uva.nl/~mdr/Publications/Files/tmm2007.pdf

32. Ahn D., van Rantwijk J., and de Rijke M. "A Cascaded Machine Learning Approach to Interpreting Temporal Expressions" In proceedings NAACL-HLT 2007, April 2007. http://staff.science.uva.nl/~mdr/Publications/Files/hlt-naacl-2007-timex.pdf

33. Casarosa, V. and Peters, C. "DELOS-MultiMatch Workshop on Ontology-Driven Interoperability for Cultural Heritage Digital Objects" Ercim News, No. 69, April 2007 http://ercim-news.ercim.org/content/view/179/327/

34. Ireson, N., Oomen, J. "Capturing e-Culture: Metadata in MultiMatch" In Proc. DELOS-MultiMatch workshop, February 2007, Tirrenia, Italy http://www.delos.info/files/pdf/DELOS%20Multimatch%202007/papersdelostirrenia.pdf

35. Amato, G., Cigarran, J., Gonzalo, J., Peters, C., Savino, P. MultiMatch Multilingual/Multimedia Access to Cultural Heritage In Proc IRCDL 07, 3rd Italian Conference on Digital libraries, to be published in Springer LNCS series

36. Clough, P., Al-Maskari, A. and Darwish, K. "Providing multilingual access to FLICKR for Arabic users" Results of the Sixth CLEF Evaluation Campaign. Lecture Notes in Computer Science (LNCS), Springer, Heidelberg, Germany, in print. iCLEF paper from 2006 which should be published 2007 in Springer LNCS. (Evaluation methods-i.e user satisfaction-and correlation with search effectiveness) http://www.multimatch.eu/docs/publications/clough_providing_iclef2006-submission-lncs.pdf

37. Clough, P., Marlow, J. and Sanderson, M. "Designing Multilingual Information Access to Tate Online Workshop" held at the 29th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval; Workshop: New Directions in Multilingual Access, Seattle, August 2006 (in print) http://www.multimatch.eu/docs/publications/clough_designing_sigir2006.pdf

38. Zhang Y., Jones G.J.F. and Zhang K. Dublin City University at CLEF 2007: Cross-Language Speech Retrieval (CL-SR) Experiments. In Advances in Multilingual and Multimodal Information Retrieval. Revised papers of the CLEF 2007: Workshop on Cross-Language Information Retrieval and Evaluation, Budapest, Hungary, LNCS, Springer. To appear.

39. Pecina P. Hoffmannova P., Jones G.J.F., Zhang,Y. and Oard D.W. Overview of the CLEF 2007 Cross-Language Speech Retrieval Track. In Advances in Multilingual and Multimodal Information Retrieval. Revised papers of the CLEF 2007: Workshop on Cross-Language Information Retrieval and Evaluation, Budapest, Hungary, LNCS, Springer. To appear.

40. Larson, M., Jijkoun, V., Löffler, J. and Tjong Kim Sang, E. Practical applications of stand-off annotation. Sprache und Datenverarbeitung: International Journal for Language Data Processing, 31(1-2), 2007, pp 115-129.

41. Schuth A., Marx M. , and de Rijke M. Extracting the Discussion Structure in Comments on News-Articles. In: 9th ACM International Workshop on Web Information and Data Management (WIDM 2007), November 2007

42. Fissaha Adafre S., Jijkoun V. and de Rijke M. Fact Discovery in Wikipedia. In: 2007 IEEE/WIC/ACM International Conference on Web Intelligence, November 2007

43. Szekely E., Bruno E. and Marchand-Maillet S. Clustered Multidimensional Scaling for Exploration in Information Retrieval. In 1st International Conference on the Theory of Information Retrieval (ICTIR'07). Budapest, Hungary 2007

44. Fissaha Adafre S. and de Rijke M. Ask the Crowd to Find Out What's Important. In: ICDM'07 Workshop on Data Mining in Web 2.0 Environments, October 2007

45. Marlow J., Clough, P.D. and Dance K., Multilingual Needs Of Cultural Heritage Web Site Visitors: A Case Study Of Tate Online, Proc. of International Cultural Heritage Informatics Meeting (ICHIM2007), Toronto, Ontario, Canada, October 24-26 2007

46. Amato, G., Magionami, V., Savino, P. Region based image indexing and retrieval inspired by text search. In occasion of the International Conference on Image and Analysis and Processing, ICIAP 2007, Modena, Italia, September 2007.

47. Fissaha Adafre S., Jijkoun, V. and de Rijke, M. Entity Retrieval. In: Recent Advances in Natural Language Processing (RANLP 2007), September 2007

48. Kludas, J. Multimedia Retrieval and Classification for Web Content, BCS IRSG Symposium: Future Directions in Information Access, September 2007.

49. Amato, G., Cigarran, J., Gonzalo, J. Peters, C., Savino, P. MultiMatch Multilingual/Multimedia Access to Cultural Heritage. In ECDL 2007 Proceedings, [Lecture Notes in Computer Science](#) 4675 Springer, 505-508.

50. Zhang, Y., Jones, G.J.F, Zhang, S.,Wang, B., Guo, Y. and Ma, Y. An Investigation of Question Translation for English-Chinese Cross-Language Question Answering, 2007 China-Ireland International Information and Communications Technologies, Dublin, Ireland, August 2007.

51. Snoek C.G.M., Huurnink B., Hollink L. , de Rijke M., Schreiber G., and Worring M. (2007). IEEE Transactions on Multimedia 9(5):975-986, August 2007.

52. Al-Maskari, A., Sanderson, M. and Clough, P. (2007) Arabic Users' Satisfaction with the Online Information as Obtained from Google. In Proceedings of the Sixth International Conference on Conceptions of Library and Information Science (COLIS2007), in print.(The effect of cultural background on search).

53. Kludas, J., Bruno, E., Marchand-Maillet, S. (2007) Information Fusion in Multimedia Information Retrieval, 5th international Workshop on Adaptive Multimedia Retrieval (AMR), July 2007 -to appear-

54. Larson, M., Eickeler, S. and Köhler, J. Supporting radio archive workflows with vocabulary independent spoken keyword search. In Proc. of Searching Spontaneous Conversational Speech, ACM SIGIR 2007 Workshop, Amsterdam, The Netherlands, July 2007.

55. Jones, G.J.F.,.Zhang, Y., Newman E., and Lam-Adesina, A.M., Examining the Contributions of Automatic Speech Transcriptions and Metadata Sources for Searching Spontaneous Conversational Speech. In Proc. of Searching Spontaneous Conversational Speech, ACM SIGIR 2007 Workshop, Amsterdam, The Netherlands, July 2007.

56. Minelli, S., Marlow, J., Clough, P., Cigarran, J., Gonzalo, J., Oomen, J.(2007), [Gathering requirements for multilingual search of audiovisual material in cultural heritage.](#) To appear in Proc. of Workshop on User Centricity – state of the art (16th IST Mobile and Wireless Communications Summit), Budapest, Hungary, 1-5 July 2007.

57. Jones, G.J.F., Zhang, Y., Fantino, F., Newman, E., and Debole, F. Multilingual Search for Cultural Heritage Archives by Combining Multiple Translation Resources. In Proc. of the ACL Workshop on Language Technology for Cultural Heritage Data (LaTeCH 2007), Prague, Czech Republic, June 2007.

58. Minelli S. and Hyde R., The Impact of the Web and a Reconfigured Social Dynamic on LIS digital libraries. Presented at the conference on Diffusion and dissemination of ideas and experiences: Issues of international comparative. Library Science in Krakow at the University of Jagiellorian-June 2007. (Web-orientation of new librarian's services).

59. Larson, M. and Köhler, J. Structured Audio Player: Supporting Radio Archive Workflows with Automatically Generated Structure Metadata. In Intelligent Access to Audio Content, Proc. of RIAO 2007, 30 May -1 June 2007.

60. Fissaha Adafre S. and de Rijke M. (2007). Estimating Importance Features for Fact Mining (With a Case Study in Biography Mining). In Intelligent Access to Audio Content, Proc. of RIAO 2007, 30 May -1 June 2007.

2.8 Newsletters

Information on the MultiMatch project have been published in internationally distributed newsletters:

- ERCIM News -– quarterly newsletter published by the European research Consortium for Informatics and Mathematics. Articles appeared in ERCIM News:

  No. 66, July 2006 – see http://www.ercim.org/publication/Ercim_News/enw66/peters.html

No. 69, April 2007-see http://ercim-news.ercim.org/content/view/179/327/ "MultiMatch Workshop on Ontology-Driven Interoperability for Cultural Heritage Digital Objects".

No. 70, July 2007 – see http://ercim-news.ercim.org/images/stories/EN70/EN70-web.pdf the call for papers of the MultiMatch Workshop "Innovative Approaches for Searching and Using Cultural Heritage Information for Learning and Teaching".

- IM2 Newsletter – Interactive MultiModal Information Management (an announcement appeared in the Issue No.37, May 2006) see www.im2.ch/newsletters/newsletter-pdf/issue37.pdf

2.9   Press Releases

University of Alicante managed contacts with Spanish news magazines to disseminate OnlineEduca Berlin Workshop.

- Article in BVMdC web: http://www.cervantesvirtual.com/noticias/noticias.jsp?mes=11&anyo=2007#cod4186
- Article in newspaper "La Verdad": http://www.cervantesvirtual.com/AdmNoticiasCervantes/ficheros/imagenes/2007/verdad.jpg; http://www.laverdad.es/alicante/20071127/cultura/ biblioteca-cervantes-participa-proyecto-20071127.html
- Article in newspaper "Información": http://www.diarioinformacion.com/secciones/noticia.jsp?pRef=2241_5_696673;_Cultura-Biblioteca-Virtual-Miguel-Cervantes-participa-proyecto-europeo-Multimatch http://www.ua.es/dossierprensa/2007/11/27/10.html

Through Alinari, Online Educa Berlin Workshop had a dedicated space in *Nova* - technological insert of "IL Sole 24 Ore".

2.10   Contribution to Standards

MultiMatch consortium partners are involved in a number of standardisation initiatives and used these links both to check that MultiMatch developments adopted relevant standards and to provide contributions where needed. Some of the research results of the project are relevant to some open standards (see below) and the partners involved in these standardization initiatives have acknowledging the project references.

Emerging standards (as for example the new component of JPEG2000 called JPSEARCH or the P-Meta standard for metadata exchange) have been taken into consideration by the project partners for integration after testing.

The scope of dissemination in contributing to standards is to provide international awareness with respect to the project technology.

The list of standards in which MultiMatch partners have shown interest:

- JPEG2000-JPSEARCH: for the search and retrieval architecture (Alinari). Alinari attended the WG1 Jpeg meeting and contributed to the definition of the search query workflow (wg1n3973_JPSearch_Part-1_PDTR) and the definition of the use cases for jpsearch (which is very relevant to MM). Alinari has also followed the discussion about MPEG7-search and the possible consequences to jpsearch.

- P-Meta standard for metadata exchange (BandG)

- MPEG Video coding (WIND)

2.11 Clustering Activities

Relations with other relevant European projects and networks have been set up through the participation in workshops, conferences and other events (see sections 0. and 0). Links have been established and proposals to start collaborations with the MultiMatch project have been explored.

The following projects, which fully address issues of importance to the Cultural heritage sector (best practices, services, technologies and services), have been contacted:

- **TEL**[22] The European Library was reached through direct contacts and contributed as Content provider to the MultiMatch project.
- **EPOCH**[23] Network of Excellence in Processing Open Cultural Heritage (http://www.epoch-net.org/). Contents were established and MultiMatch was presented at the EPOCH final workshop.
- **MINERVA**[24] is a network of Member States' Ministries to discuss, correlate and harmonise activities carried out in digitisation of cultural and scientific content for creating an agreed European common platform, recommendations and guidelines about digitisation, metadata, long-term accessibility and preservation. – The MultiMatch consortium reached MINERVA through direct contacts with the Italian Ministry of culture. MultiMatch was presented at two MINERVA events and discussions were held with Minerva representatives.
- **MICHAEL**[25] Through the multilingual MICHAEL service people are able to find and explore European digital cultural heritage material using the Internet. The MICHAEL consortium is made up of the ministries of culture of France and Italy, the Museums, Libraries and Archives Council of the United Kingdom, supported by the private bodies Dedale, AJLSM and Amitié for technological and administrative aspects. The MultiMatch consortium reached MICHAEL through direct contacts and participation in events (like the final MultiMatch workshop in Cyprus where a representative of MICHAEL was invited speaker at the workshop). Hypothesis of future collaboration have been proposed.
- **IMAGINATION**[26] Image-based Navigation in Multimedia Archives. The MultiMatch consortium established links with this project through direct contacts. One representative of the IMAGINATION was invited speaker at the final MultiMatch workshop in Cyprus. Imagenotion[27] is an application developed by IMAGINATION. Possible cooperation between MultiMatch and ImageNotion are were explored, in particular:
    - Exchange of technical experience: MultiMatch multi-lingual search with automatic query translation, personal workspace of images, search for similar images (in color and texture). IMAGINATION semantic annotation, annotation and navigation through image parts,visual search refinement.
    - Common workshops
    - Use content of each other

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[22] http://www.theeuropeanlibrary.org

[23] http://www.epoch-net.org/)

[24] http://www.minervaeurope.org/

[25] http://www.michael-culture.org/

[26] http://www.imagination-project.org/

[27] www.imagenotion.com

- **DELOS**[28] Network of Excellence for Digital Libraries. Coordinated a joint programme of activities of major European teams working in digital library related areas. The MultiMatch consortium took part to two DELOS conferences which represented the occasion to target this network and organised a joint workshop with DELOS on interoperability.
- **CLEF**[29] Cross Language Evaluation Forum. Evaluation tracks to test different aspects of information retrieval system development. All the MultiMatch research partners are very active in CLEF. MultiMatch sponsored an evaluation track in CLEF 2008
- **EUROPEANA**[30] The European digital library, museum and archive The MultiMatch consortium established links with this project through direct contacts (one partner for the MultiMatch consortium is partner in Europeana) Hypothesis for future collaborations have been proposed.
- **CATCH**[31] CommunicAtion Technologies for Cultural Heritage. The MultiMatch consortium established contacts with the Catch project during the workshop held in Utrecht 1st December 2006.
- **EDLNET**[32] European Digital Library Network. MultiMatch is represented in EDLNET by ISTI-CNR which is part of EDLNET.
- **ethnoArc**[33] – Linked European Archives for Ethnomusicological Research. The MultiMatch consortium established contact with the ethnoArc project by participating to a joint in Berlin, March 13, 2008.

2.12 MultiMatch User Groups

MultiMatch distinguished between a core user group (controlled in size and composed of invited members) expected to provide input for the user requirements and contribute to the evaluation of the system prototypes, and a general user group to which any interested user can belong.

The MultiMatch users have in common the desire or necessity to find and use cultural heritage contents (images, video, audio, multimedia). MultiMatch offered them: services to access multimedia/multilingual cultural contens; possibility to request specific system functionality addressing particular user needs; invitation to MultiMatch workshops/information days;   indexing of third party contents (professional contents); involvement in the evaluation activity.

The MultiMatch user group membership has been continuously enlarged during the project lifetime and has reached the expected numbers:

	Education	General Public	CH
Core	5 to 10	5 to 10	5 to 10
General	>50	>20	>20

1. **Educational user group**

[28] http://www.delos.info/

[29] http://clef.isti.cnr.it/

[30] http://dev.europeana.eu/

[31] http://www.catchproject.net/index.html

[32] http://ec.europa.eu/information_society/activities/econtentplus/projects/cult/edlnet/index_en.htm

[33] http://www.ethnoarc.org/

Users contacted

Around 50 users educational users have been involved in the educational user group

Dissemination activities

The educational user group has been targeted in different ways by:

- distributing advertising materials (leaflets, brochures, etc.)
- direct contacts (typically making presentations to visitors)
- distributing electronic newsletters, on line questionnaires, emails
- participation in events: conferences, meetings, workshops
- organization of MultiMatch Workshops. In particular "Innovative Approaches for Searching and Using Cultural Heritage Information for Learning and Teaching "held on 28November 2007 at Berlin, (Germany) represented an important occasion to target this user group and collect contacts.

2. **General public (cultural tourism) user group**

Users contacted

Some difficulties have been encountered addressing this target community. Face to face meetings with some of the users contacted helped us to point out the difficulties encountered and the possible solutions. We set up a dissemination strategy functional to establish new contacts. Finally, using each partner's channels we involved a list of more than 20 users defined as "general public".

Dissemination activities

- Direct contacts: we established contacts with Tourist Portals/organizations in order to offer the potentialities of the MultiMatch system. Each partner from the Consortium representing a different Country tried to establish contacts with tourist portals or organizations.
- General public was reachable through the WIND Libero portal which deals with travel and tourism, together with the services related to communities of users interested in those topics.
- Participation in national and international Events (of particular relevance: a Seminar targeting the tourist user group was held November 2007 in Alicante, see section 2.3 for details)

3. **Professional users in Cultural Heritage domains**

Users contacted

Aroun 60 cultural heritage users have been involved in the MultiMatch user group. Among them museums, CH institutions, CH networks.

Dissemination activities

- Distribution of advertising materials (leaflets, brochures, etc.)
- direct contacts (typically making presentations to visitors)
- phone calls
- distribution of on line questionnaires, emails
- participation in several events: conferences, meetings, workshops
- organization of MultiMatch workshops. All the MultiMatch workshops that the Consortium organized were addressing the CH user group (see 2.4)

Content providers

The CH users contacted were asked to contribute with their data to MultiMatch. Some of them agreed to allow the MultiMatch system to access some of their contents:

1. AISA photographic agency;
2. The European Library (TEL)-ITA (National Library Florence)

3. Michael Plus ICIMSS (PL)
4. Michael Plus ONB (AT)
5. Michael Plus MLA (UK)
6. Teche RAI (ITA)
7. IL Sole 24 ORE (ITA)-news
8. The Jewish National and University Library
9. Centre virtuelle de la connaissance sur l'Europe (FR)

4. Digital Library community

MultiMatch workshops organized during**:**1st DELOS conference (Pisa, 15 February 2007), 2nd DELOS conference (Pisa, December 2007), IACH workshop (held at ECDL 18 September 2008) represented the occasions to reach this target community.

MultiMatch is also represented officially by its coordinators (Carol Peters and Pasquale Savino) in the EDLNet thematic network which is building consensus towards creating The European Digital Library.

5. Scientific Community

MultiMatch addressed the scientific community in order to create awareness about the MultiMatch project and to get feedback on the scientific outcomes of the project.

The consortium's activity aimed at reaching the target scientific community is part of a permanent dissemination strategy which is focused on:

- Publications: scientific conference/workshop papers, articles in scientific international journals (see section 2.7)
- Participation to national and international events: conferences, workshops, industrial days, meetings (see sections 2.2)
- MultiMatch workshops (see section 2.4)