Complementarity of information found in media reports
across different countries and languages

Ralf Steinberger
& the JRC’s OPTIMA team – Open Source Text Information Mining and Analysis

Applications: http://emm.newbrief.eu/overview.html
Multilingual Web Workshop, Pisa, Italy, 4 April 2011

Agenda

• JRC: Who we are – what we do – our customers.

• Europe Media Monitor (EMM) family of applications
  • Publicly accessible at http://emm.newsbrief.eu/overview.html

• Motivation for multilingual text processing

• How to get access to this complementary information
  • Multilingual category definitions and alerts
  • Linking of related news across languages
  • Multilingual information gathering on named entities
  • Multilingual event scenario template filling

• Ongoing work & Summary
European Commission
(scientific-technical arm of public administration)

Non-commercial

Multi-disciplinary / multilingual

Relatively small team working on Language Technology and media monitoring
EMM media monitoring users – wide coverage, world-wide

- **European Commission** (most DGs) and other EU Institutions

- **EU Agencies**:
  - e.g. Public Health (ECDC), Food Safety (EFSA), Chemicals Bureau (ECHA), etc.

- **EU Member State organisations**: e.g.
  - Public Health,
  - law enforcement authorities,
  - parliaments,
  - crisis management/humanitarian

- **International and extra-European organisations**: e.g.
  - various UN organisations
  - Centres for Disease Prevention and Control in the US, Canada, China, …

- **The public**:
  - Ca. 20 - 30,000 anonymous internet users of publicly accessible EMM systems.
  - Combined between 1 and 2 Million hits per day
Europe Media Monitor (EMM) news gathering - A few facts

- **~ 2500 Sources** (world-wide, with focus on Europe)
  - ~ 2300 news sources (web portals)
  - ~ 200 specialist medical sites
  - ~ 20 commercial newswires
  - Specialist pay-for sources (LexisMed)
  - 24/7, updated every 10 minutes

- **~ 100,000 articles / day in ~ 50 languages**

- Converts dirty html with adverts, menus, html tags, ‘related stories’, etc. into clean and standardised UTF-8 encoded RSS format.

- Articles are fed into the various EMM applications:
  - NewsBrief
  - NewsExplorer
  - MedSys
  - EMM-Labs

Multilingual Web Workshop, Pisa, Italy, 4 April 2011

Agenda

• JRC: Who we are – what we do – our customers.
• Europe Media Monitor (EMM) family of applications
  • Publicly accessible at http://emm.newsbrief.eu/overview.html
• Motivation for multilingual text processing
• How to get access to this complementary information
  • Multilingual category definitions and alerts
  • Linking of related news across languages
  • Multilingual information gathering on named entities
  • Multilingual event scenario template filling
• Ongoing work & Summary
Locations mentioned in MedISys medical articles across languages – complementary coverage

Italian - German

English - French

Spanish - Portuguese
NewsBrief Live Cluster Map

Display of latest geo-located news clusters
Co-occurrence relation between people produced on the basis of many languages is **less biased**.
Multilingual Web Workshop, Pisa, Italy, 4 April 2011

Multilinguality: less-biased centrality in social networks

Quotation network
## Alexander Litvinenko

Information about this person was last updated on Dienstag, 20. März 2007.

<table>
<thead>
<tr>
<th>Names</th>
<th>Key Titles and Phrases</th>
<th>External resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexander Litvinenko (Eu, nl)</td>
<td>russo (it, pt - 349)</td>
<td></td>
</tr>
<tr>
<td>Alexander Litvinenko (de)</td>
<td>agent russe (fr - 134)</td>
<td></td>
</tr>
<tr>
<td>Alexandre Litvinenko (fr)</td>
<td>ruso (es - 208)</td>
<td></td>
</tr>
<tr>
<td>Aleksandr Litvinenko (fi, no)</td>
<td>agente (de, sv - 134)</td>
<td></td>
</tr>
<tr>
<td>Aleksander Litvinenko (nl, sv)</td>
<td>kritikers (de - 79)</td>
<td></td>
</tr>
<tr>
<td>Alexandra Litvinenko (ru)</td>
<td>agent (en, sv - 130)</td>
<td></td>
</tr>
<tr>
<td>Александр Литвиненко (ru)</td>
<td>russia (it, pt - 76)</td>
<td></td>
</tr>
<tr>
<td>Alexander Litvinenko (it)</td>
<td>agent secret russe (fr - 39)</td>
<td></td>
</tr>
<tr>
<td>Alexander Litvinenko (en)</td>
<td>russe (de, fr - 73)</td>
<td></td>
</tr>
<tr>
<td>Alexander Litvinenko (es)</td>
<td>former russian agent (en - 20)</td>
<td></td>
</tr>
<tr>
<td>Alexandre Litvynenko (fr)</td>
<td>morte di (it - 45)</td>
<td></td>
</tr>
<tr>
<td>Alexander Litvynenko (en)</td>
<td>ryskaj agente (sv - 13)</td>
<td></td>
</tr>
<tr>
<td>Aleksey Litvinenko (hr)</td>
<td>kritiker (de - 19)</td>
<td></td>
</tr>
<tr>
<td>Alexander Litvinenk (hr)</td>
<td>43 ans (fr - 17)</td>
<td></td>
</tr>
<tr>
<td>Alexander Litvinenko (it)</td>
<td>russi (it - 14)</td>
<td></td>
</tr>
<tr>
<td>Alexander Litvinenko (en)</td>
<td>russian (en - 15)</td>
<td></td>
</tr>
<tr>
<td>Alexander Litvinenko (zh)</td>
<td>omicidio di (it - 11)</td>
<td></td>
</tr>
<tr>
<td>Alexander Litvinenko (ja)</td>
<td>officer (en - 13)</td>
<td></td>
</tr>
<tr>
<td>Alexander Walterowitsch Litvinenko (de)</td>
<td>former (en - 16)</td>
<td></td>
</tr>
</tbody>
</table>

Read Wikipedia entry

---

JRC: Who we are – what we do – our customers.

Europe Media Monitor (EMM) family of applications
- Publicly accessible at http://emm.newsbrief.eu/overview.html

Motivation for multilingual text processing

How to get access to this complementary information
- Multilingual category definitions and alerts
- Linking of related news across languages
- Multilingual information gathering on named entities
- Multilingual event scenario template filling

Ongoing work & Summary
EMM – NewsBrief & MedISys (up to 50 languages)

- Categorises news into over 1000 categories, using:
  - Boolean search word combinations
  - vicinity operators
  - optional weights
  - regular expressions
- Clusters and tracks news live (multi-monolingually)
- Sends out email notifications for each category
- Detects breaking news
- Lookup of known entities
- Quotation recognition
Access MedISys at http://medusa.jrc.it/
Documents from all languages get classified according to the same countries and categories.

An increase of the number of media reports on any country-category combination is detected, independently of the reporting language.

Graphs and alerts may show events not yet reported in your own language.
Latest News - Spain, Legionellosis

Articles published more than 40 minutes ago

Detectan a dos personas más afectadas por el brote de legionellosis en Madrid

Dos nuevos casos de legionellosis elevan a 29 los afectados por legionellosis en Madrid

Artículos published more than 3 hours ago

Dos nuevos casos de legionellosis elevan a 29 los afectados por legionellosis en Madrid

Artículos published more than 6 hours ago

Dos nuevos casos de legionellosis elevan a 29 los afectados por legionellosis en Madrid

Sanidad detecta dos personas más afectadas de legionellosis en Madrid
Latest News About - Ecology

Articles published more than 40 minutes ago

24 pilot whales die in New Zealand

Wellington: New Zealand conservation officials on Friday euthanised 10 pilot whales, the only survivors of a 24-strong pod that became stranded in a mangrove swamp. The whales had been found earlier in the day trapped in the shallow water and mud in Parengarenga Harbor on North Island, with 14 already dead.

Articles published more than 1 hour ago

24 pilot whales die in stranding

Wellington Friday, January 21, 2011 6:49:00 AM CET [ info ]

NEW Zealand conservation officials euthanised 10 pilot whales, the only survivors of a 24-strong pod that became stranded in a mangrove swamp.

Most associated names

United Nations
Protection Agency
Environmental Protection Agency
Nature
Beckh Obama
RIA Novosti
Europa Press
Dmitry Medvedev
World Bank
China Daily

Most active sources

sondakika
haberakuel
stargundem
haber
yenisafak
webhaber
netgazette
stargazete
crisisgroup
millivet

Renewable energy sector has lots of spark left, says Experts

News sources by country
Agenda

• JRC: Who we are – what we do – our customers.
• Europe Media Monitor (EMM) family of applications
  • Publicly accessible at http://emm.newsbrief.eu/overview.html
• Motivation for multilingual text processing
• How to get access to this complementary information
  • Multilingual category definitions and alerts
  • Linking of related news across languages
  • Multilingual information gathering on named entities
  • Multilingual event scenario template filling
• Ongoing work & Summary
Libyan rebels continue westward push [67] de es fr it
nl bg ar pt es
fr de nl tr sv th

Libyan rebels say they have entered town of Ras Lanuf after
defeating pro-Gaddafi troops further east.

Workers evacuated from Fukushima plant [45] de es fr it
pl pt nl it

Japanese authorities evacuated workers from a reactor building
they were working in after high dose of radiation were detected at the
creaked Fukushima nuclear plant.

2 killed in Israeli airstrike as nation deploys new defense
system [37] de es fr it nl bg pt es

An Israeli airstrike in northern Gaza Sunday morning killed two
Palestinians and injured three others, according to Israeli and
Palestinian officials.

Syrian troops step up street patrols [29] de es fr it nl
da sa ne pt ru nl sv sv

Syria’s army beefed up its presence in the southern city of Deraa, a
Fidel Castro announced his resignation as president of Cuba and commander-in-chief of Cuba’s military on Tuesday, according to a letter published by state-run newspaper Granma.

cnn 9:23:00 AM CET
International: Hussein’s execution

German national breaking news

Timeline
Follow major news over the past 1331 days.

2007-01-18

de: 133
Stoiber will zurücktreten

2007-01-18

en: 01
TV boss: ‘Race row’ show stays on

Select the size of the time window:
- 365 days
- 180 days
- 90 days
- 30 days
Thursday, November 22, 2007

Pakistan court dismisses final Musharraf challenge

Pakistan’s new-look Supreme Court has, as expected, dismissed the last challenge to President Pervez Musharraf’s re-election.

eaunews-en 2:31:00 PM CET

Did Pakistan face rule? A little Test Says No

Emergency rule ‘destroying the judiciary’
Bangkok Post 0:26:00 PM CET

Exiled ex-PM Sharif plane return to Pakistan
usaToday 10:58:00 PM CET

Pakistan Court Rules for Musharraf
ABCnews 2:43:00 PM CET

‘Bush unembarrassed by Pakistan emergency’
dailymail PK 12:28:00 AM CET

PM in Uganda for Commonwealth summit
TorontoStar 5:40:00 PM CET

Commonwealth to drop Pakistan
guardian 1:02:00 PM CET

Pakistan’s Commonwealth suspension in sorrow, not anger: Britain (APP)
news-yahoo 11:34:00 PM CET

Pakistan: Emergency and chaos

This cluster belong to the following story: Pakistan defends emergency rule
Name variants found in 16 hours of multilingual news analysis
(25.3.2011)

2190. Muammar Gaddafi

2011-03-24T23:59+0200
Muammar Gaddafi / Muammar al-Gaddafi / Merch Chedafi / Moammar / Kadhafi /Muonmar / Gaddafi / مامار / معايصر / Gaddafi / Muammar / Kadhafi / Gaddafi / Moammar / Muammar / Kadhafi / Gaddafi / Muammar / Kadhaf
Muammar Gaddafi
Information about this person was last updated on Friday, March 25, 2011.

Latest Clusters – English

Libya: military base ‘destroyed’ by air strikes

Portugal’s prime minister resigns after losing

Quotes from – English

[said]: Any foreign military act against Libya will expose all air and maritime traffic in the Mediterranean Sea to danger and civilian and military [facilities] will become targets of Libya’s counter-attack.

dailytimes.pk 24-MAR-11

Quotes about – English

Clinton [said]: But we would certainly encourage that they would make the right decision, and not only institute a real, comprehensive ceasefire, but to withdraw from the cities, end the military actions and prepare for a transition that does not include Colonel Gadhafi.

upi 24-MAR-11

Carney [said]: It is a time-limited, scope-limited military action, in concert with our international partners, with the objective of protecting civilian life in Libya from Muammar Gaddafi and his forces.

voanews 24-MAR-11

Related People

Barack Obama (847)
Saif al-Islam al-Gaddafi (652)
Hillary Rodham Clinton (591)
Hosni Mubarak (503)
Nicole Sarkozy (493)
Ban Ki Moon (482)
David Cameron (476)
Silvio Berlusconi (464)
Nelson Mandela (458)
Franco Frattini (443)
Roberto Maroni (431)

Associated People

Maciej Krych (1.3)
Olivier Blanchard (1.1)
Gabriel Fuchs (1.1)
Mohamed El Baradei (1.0)
Felipe González (1.0)
Richard LeBaron (1.0)
Hugo Chavez (1.0)
Zine El Abidine Ben Ali (1.0)
Alain Juppé (1.0)
Maurizio Fumo (1.0)

Other Names

European Union (1025)
United Nations (854)
UN Security Council (690)
Arab League (627)
Al-Jazeera (538)

Related Stories

Coalition allies continue Libya air strikes
February 16, 2011 - March 2011

15 dead as Israel boards Gaza-bound ships
April 7, 2010 - March 2011

protests continue
February 21, 2011 - March 2011

Protests take key square
February 21, 2011 - March 2011

Tunisian government is dismissed
January 17, 2011 - February 2011

Mubarak promises to silence Egypt protests
January 29, 2011 - March 2011

Obama toughens line in talk
NewsExplorer – Relation exploration

Example:
Muammar Gaddafi & son Saif al-Islam al-Gaddafi
Agenda

• JRC: Who we are – what we do – our customers.

• Europe Media Monitor (EMM) family of applications
  • Publicly accessible at http://emm.newsbrief.eu/overview.html

• Motivation for multilingual text processing

• How to get access to this complementary information
  • Multilingual category definitions and alerts
  • Linking of related news across languages
  • Multilingual information gathering on named entities
  • Multilingual event scenario template filling

• Ongoing work & Summary
**NEXUS:**
Multilingual Information Extraction system for the extraction of **structured event descriptions** from online news referring to conflicts, crimes and disasters.

**Currently 7 Languages:**
English, French, Portuguese, Arabic, Spanish, Italian, Russian (and Chinese).

**Near real-time:** **every 10 minutes**, EMM clusters the latest articles about the same event and NEXUS extracts structured information.

**Objective:**
**Global crisis monitoring** (Live situation or long-term trend).
<table>
<thead>
<tr>
<th>Event Type:</th>
<th>Baghdad car bombs kill at least 127</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Type:</td>
<td>Terrorist Attack</td>
</tr>
<tr>
<td>Severity:</td>
<td>127 killed 448 injured</td>
</tr>
<tr>
<td>Weapons:</td>
<td>car bomb</td>
</tr>
<tr>
<td>Place:</td>
<td>Baghdad</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Event Type:</th>
<th>Johannesburg: cinq suspects arrêtés pour le meurtre du curé français</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Type:</td>
<td>Arrest</td>
</tr>
<tr>
<td>Severity:</td>
<td>1 killed 0 injured</td>
</tr>
<tr>
<td>Victims:</td>
<td>prêtre français/ Louis Blondel killed</td>
</tr>
<tr>
<td>Place:</td>
<td>Johannesburg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Event Type:</th>
<th>Police search for killer bus driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Type:</td>
<td>Man-Made Disaster</td>
</tr>
<tr>
<td>Severity:</td>
<td>1 killed 6 injured</td>
</tr>
<tr>
<td>Victims:</td>
<td>passenger killed</td>
</tr>
<tr>
<td>Place:</td>
<td>London</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Event Type:</th>
<th>Timor-Leste: Indonésios estão a fazer &quot;cortina de fumo&quot; sobre morte dos &quot;5 de Balibó&quot; - viúva (C/ÁUDIO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity:</td>
<td>5 killed, 0 injured</td>
</tr>
<tr>
<td>Victims:</td>
<td>jornalistas killed</td>
</tr>
<tr>
<td>Place:</td>
<td>Timor-Leste.</td>
</tr>
</tbody>
</table>
Car bomber strikes north Pakistan

A car bomb has exploded in Pakistani’s northwestern town of Charsadda killing at least 10 people....

Bomb explodes in northwestern Pakistani town

A bomb exploded in the northwestern Pakistani town of Charsadda on Tuesday causing an unknown number of casualties, police said. "It was a bomb blast....

10 killed in Pakistan bomb

A bomb has exploded in the north-western Pakistani town of Charsadda, killing 10 people....

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Bombing</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLACE</td>
<td>Charsadda, Pakistan</td>
</tr>
<tr>
<td>TIME</td>
<td>Tuesday, November 10, 2009</td>
</tr>
<tr>
<td>DEAD COUNT</td>
<td>10 people</td>
</tr>
<tr>
<td>WEAPONS</td>
<td>Bomb</td>
</tr>
</tbody>
</table>
Three die as Egypt protests erupt
Articles: Last update: Start:
Event Type: Disorder/Protest/Mutiny Severity: 3 killed injured and kidnapped. Victims were Three killed and injured. Perpetrators were and the weapons used were.
Place: Cairo

Three die as Egypt protests erupt
Wednesday, January 25, 2011 5:30:00 AM CET | info
Egyptian police fired tear gas and rubber bullets and beat protestes to clear thousands of people from a central Cairo square after the biggest demonstrations in years against President Hosni Mubarak’s authoritarian rule....

Five dead as blast rips through bus
Articles: Last update: Start:
Event Type: Bombing Severity: 5 killed 13 injured and kidnapped. Victims were Five killed and 13 injured. Perpetrators were and the weapons used were.
Place: Manila

Five dead as blast rips through bus
Wednesday, January 26, 2011 6:30:00 AM CET | info
The death toll from a bus bombing in the Philippine capital has risen to five with 13 wounded as authorities suspect terrorists are to blame and step up security....

Hamas takes back authorization for Abbas, PLO to negotiate with Israel
Articles: Last update: Start:
Event Type: Other Severity: killed injured and kidnapped. Victims were killed and injured. Perpetrators were and the weapons used were.
Place: Jerusalem

Hamas takes back authorization for Abbas, PLO to negotiate with Israel
Wednesday, January 25, 2011 5:30:00 AM CET | info
Hamas movement on Tuesday withdrew its authorization for Palestinian President Mahmoud Abbas and Palestine Liberation Organization (PLO) to negotiate with Israel on behalf of the Palestinians. "The authorization that Abbas got in the National Agreement Document is no longer existed and we will not.......

Hawker suspect publishes memoir
Articles: Last update: Start:
Event Type: Arrest Severity: 1 killed injured and kidnapped. Victims were British woman killed and injured. Perpetrators were and the weapons used were.

Hawker suspect publishes memoir
Wednesday, January 26, 2011 5:30:00 AM CET | info
Event extraction – Display on a map
Event extraction – Display on a map – click on one event

Fisherman injured in ferry crash
Jersey Lat/Lon: 49.1919, -2.10711
Size: 1

Last update 2011-03-28T14:29+0200
A French fisherman is taken to Jersey hospital after a passenger ferry collided with a French fishing boat.
Event Type: Maritime accident. Severity: 0 Killed, 1 Injured and 0 Victims were not reported killed and Fisherman injured.
Event extraction – View news cluster and translation

24 killed in a suicide attack in southeast Afghanistan

Sharan (Afghanistan) – Afghan officials said Monday that three suicide bombers stormed through a bus loaded with explosives depot building company in eastern Afghanistan, killing 24 miners and injuring 59 others were injured. She said the Afghan Ministry of Interior that the two suicide bombers stormed on Sunday evening the construction company in Pakola province after they killed a security guard shot dead, and then blew up their bus.
Event types currently recognised

NEXUS Crisis Events

Violent Crisis Event Types
- Hostage Release (HR)
- Video Release (VR)
- Kidnapping (KD)
- Arrest (AR)
- Bombing (BO)
- Air/ Missile Attack (AA)
- Shooting (SH)
- Assassination (AS) & Execution (EX)
- Terrorism Attack (TA)
- Bi/o/Chemical Attack (BC)
- Disorder/Mutiny (DM)
- Heavy Weapons Fire (HW)
- Stabbing (ST)
- Physical Attack (PA)
- Vandalism (VA)
- Robbery (RB)

Natural Disaster Crisis Event Types
- Natural Disaster (ND)
- Volcanic Eruption (VC)
- Tsunami (TS)
- Earth Quake (EQ)
- Landslide (LS)
- Avalanche (AV)
- Tropical Storm (TR)
- Lightning Strike (LS)
- Storm (ST)
- Winter Storm (WS)
- Flood (FL)
- Wild Fire (WF)
- Heat Wav (HW)

Man Made Disaster Crisis Event Types
- Man Made (MM)
- Fire (FM)
- Explosion (EXP)
- Maritime Accident (MA)

Other Crisis Event Types
- Humanitarian Crisis (HUM)
- Armed Conflict (ARM)
- Trail
Agenda

• JRC: Who we are – what we do – our customers.
• Europe Media Monitor (EMM) family of applications
  • Publicly accessible at http://emm.newsbrief.eu/overview.html
• Motivation for multilingual text processing
• How to get access to this complementary information
  • Multilingual category definitions and alerts
  • Linking of related news across languages
  • Multilingual information gathering on named entities
  • Multilingual event scenario template filling
• Ongoing work & Summary
• E.g. Detect opinions on
  • European Constitution; EU press releases;
  • Entities (persons, organisations, EU programmes and initiatives);
• Detect and display opinion differences across sources and across countries;
• Follow trends over time.
Ongoing: Monitoring social media

- **Facebook:**
  Keyword searches on publicly available posts
  e.g. search for *Chikungunya* on openbook.org
  extract publicly available friend networks.

- **Twitter:**
  Keyword searches on publicly available tweets
  e.g. search for *Chikungunya* on twitter.com

- **Blogs**
• News content (and internet content in general) is complementary across languages.

• EMM gathers and processes multilingual news, etc.
  • Multilingual category definitions and alerts → alert and produce statistics
  • Linking of related news across languages
  • Multilingual information gathering on named entities
  • Multilingual event scenario template filling

Libyan rebels continue westward push [67] de es fr it nl ar bg da et fa no pt ro ru sl sv sw tr
Questions?

Thank You
Complementarity of information found in media reports across different countries and languages

Ralf Steinberger

& the JRC’s OPTIMA team – Open Source Text Information Mining and Analysis

Applications:  http://emm.newbrief.eu/overview.html
Usefulness of monitoring social media?

- Case Study: Norovirus outbreak at Oldenburg University
- Compare data on a Norovirus outbreak from Facebook, Twitter, media and blogs
- Were social media faster than established methods for indicator-based surveillance of Norovirus?

Report on the Oldenburg Norovirus Outbreak, Information Source, Date and Time

Data from Edward Velasco, German Robert Koch Institute, FP7 project M-ECO