The MixedEmotions Platform

Technical Webinar for the MixedEmotions Big Data Emotion Analysis Platform
Webinar Overview

● The MixedEmotions Project
● Emotions - Why measure them?
● Toolbox Overview
● The Platform in Action
What is “MixedEmotions”? 

The MixedEmotions Project 
• Emotion detection 
• Mixed modalities  
  • Audio, Video, Text 
• Semantic technologies 
• Open source big data platform
Why MixedEmotions?

- Ubiquitous monitoring of emotions enables visionary applications
- Your **SmartTV knows you had a hard day** (and shows you a comedy)
- Your car **knows your emotional state** (and applies safety measures)
- Your computer **knows you are upset** (and stops you from sending email)
Partners and Pilot Projects

### Partners

**Academic**
- Universität Passau
- University of Technology, Brno
- Politécnica
- O'Gaillimh NUI Galway
- Insight

**Industry**
- Deutsche Welle
- Expert System
- Phone in
- paradigma
- SIREn SOLUTIONS
- Mixed Emotions

### Pilots

- **Social TV**
- **Brand Reputation Management**
- **Call Centre Operations**
Microservices philosophy

A monolithic application puts all its functionality into a single process...

... and scales by replicating the monolith on multiple servers

source: martinfowler.com
Microservices philosophy

A monolithic application puts all its functionality into a single process...

... and scales by replicating the monolith on multiple servers

A microservices architecture puts each element of functionality into a separate service...

... and scales by distributing these services across servers, replicating as needed.
Microservices Architecture

- Input
- Orchestrator
- Output

- Mesos-DNS
  - Knows Address
  - Orchestrates containers

- Marathon

- MESOS
  - Host 1
  - Host 2
  - Host N

- Docker Repository
  - Retrieve images
Open Repositories

https://hub.docker.com/u/mixedemotions/  https://github.com/MixedEmotions
Analysis Markup Standards

- Based around **JSON-LD**
- Incorporates linked data standards
  - **NIF** - NLP Interchange Format
  - **MARL** - vocabulary for subjective opinions
  - **ONYX** - vocabulary for emotions
- Currently primarily for text and social networks
  - Audio/video soon to come
- **Python** and **Java** wrappers for easy module creation
JSON-LD Example

```json
{
  "@context": "http://mixedemotions-project.eu/ns/context.jsonld",
  "@id": "me:Result1",
  "analysis": [{
    "@id": "me:EmotionAnalysis1",
    "@type": "onyx:EmotionAnalysis"
  }],
  "entries": [{
    "@id": "http://micro.blog/status1",
    "@type": [
      "nif:RFC5147String",
      "nif:Context"
    ],
    "nif:isString": "Dear Microsoft, put your Windows Phone on your newest #open technology program. You’ll be awesome. #opensource",
    "emotions": [{
      "@id": "http://micro.blog/status1#char=0,109",
      "nif:anchorOf": "Dear Microsoft, put your Windows Phone on your newest #open technology program. You’ll be awesome. #opensource",
      "prov:wasGeneratedBy": "me:EmotionAnalysis1",
      "onyx:hasEmotion": [{
        "onyx:hasEmotionCategory": "wna:liking"
      },
      {
        "onyx:hasEmotionCategory": "wna:excitement"
      }]
    }]
  }]
}
```
Add video analysis???
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Handouts

There are 3 handouts:

- Webinar slides
- Useful links
  - Component demos
  - Contacts
- Platform tutorial
- Recording on YouTube in a few days
Your Impression?

We would love to get your feedback and prepared a quick questionnaire.

Please look into the chat window, where we posted this link: http://bit.ly/2krslln