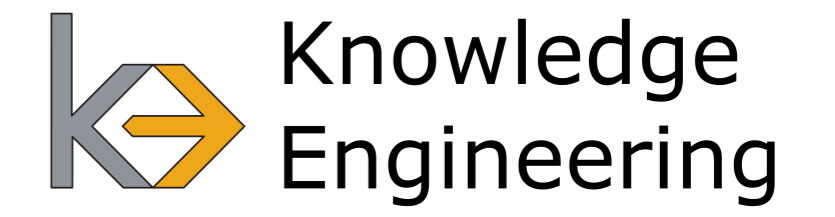


MICI: Combining Government and Linked Open Data in Emergency Management

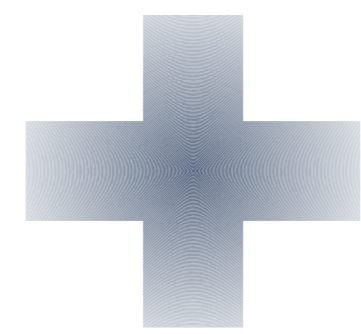
Axel Schulz, Heiko Paulheim, Frederik Janssen

Technische Universität Darmstadt, Germany



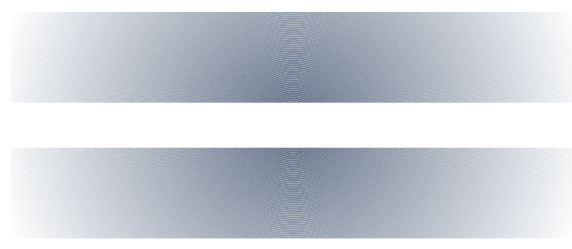
Seattle Real-time Fire Calls

- Open Government Data
- Real-time information about incidents
- Incident type, position, and time



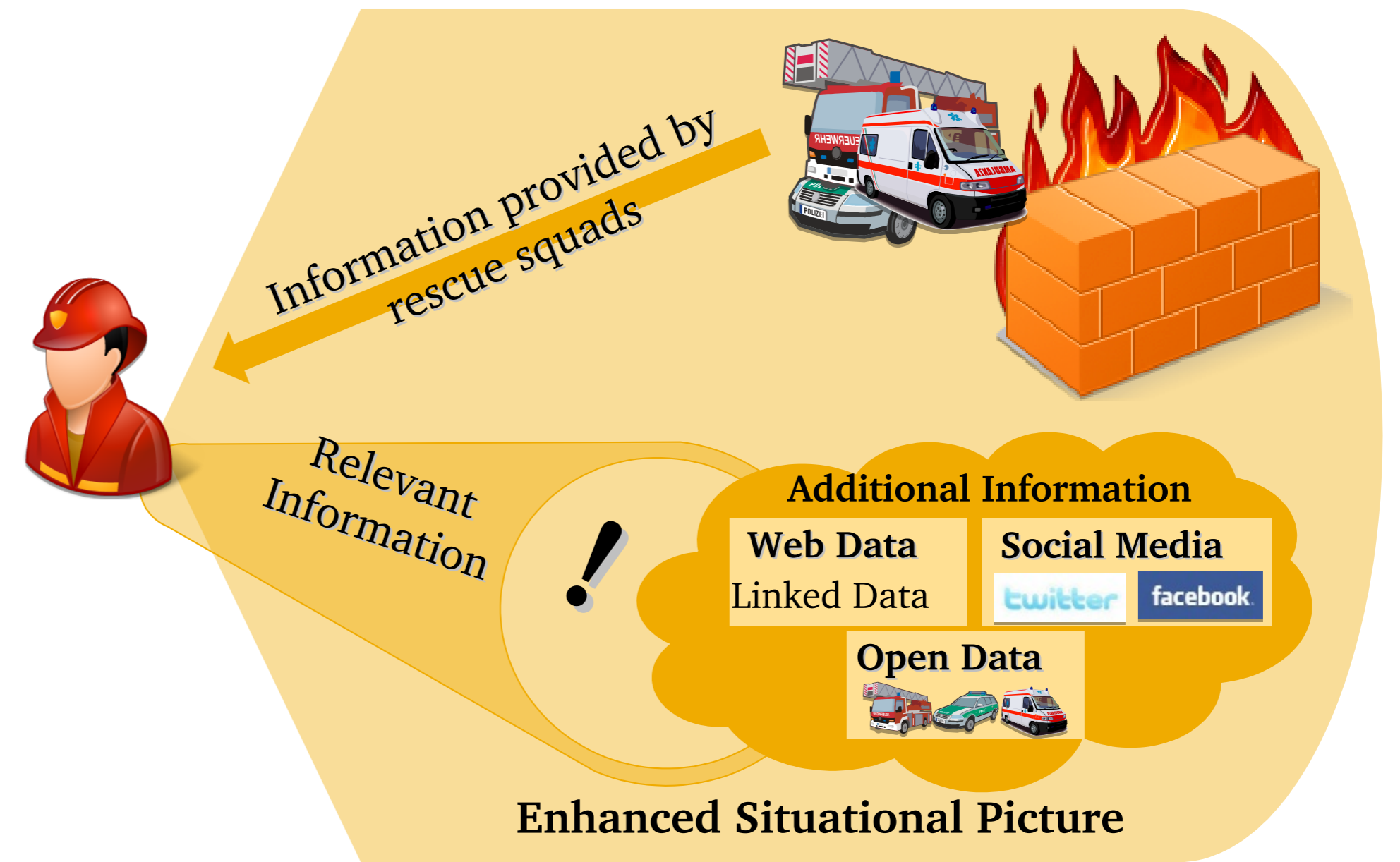
Linked Open Data

- Linked Geo Data
- Background information about objects with geo coordinates
- Critical infrastructure such as schools, hospitals, gas stations, ...



Relevancy for Emergency Management

- Decreasing information overflow by classifying and filtering to relevant information
- Identifying critical infrastructure
- Classifying/filtering incidents by severity
- Improving the situational picture



MICI - Mashup for Identifying Critical Infrastructure

Home Incidents Rules About

Filter by: Show all and new Severe+ High+ Medium+

Address: 1811 Eastlake Av Show Reevaluate

Severe Risk Count: 0
High Risk Count: 1
Medium Risk Count: 3

11.05.2012 04:41:00

Type: Aid Response

Address: 3rd Av / James St Show Reevaluate

Severe Risk Count: 0
High Risk Count: 0
Medium Risk Count: 10

11.05.2012 04:20:00

Type: Aid Response

Address: 5028 Wilson Av S Show Reevaluate

Severe Risk Count: 0
High Risk Count: 0
Medium Risk Count: 3

11.05.2012 04:11:00

Type: Aid Response

Address: 2nd Av / Madison St Show Reevaluate

Severe Risk Count: 0
High Risk Count: 0
Medium Risk Count: 0

11.05.2012 04:09:00

Type: Medic Response

Address: 12325 30th Av Ne Show Reevaluate

Label	URI	Distance	Risk Level
El Corazón	http://linkedgeoata.org/tripplivnode818897264	92.83 m	High Risk
Knee High Stocking Co.	http://linkedgeoata.org/tripplivnode1332015004	175.55 m	Medium Risk
The Living Room	http://linkedgeoata.org/tripplivnode1332014999	192.43 m	Medium Risk
The Saint	http://linkedgeoata.org/tripplivnode1332014994	203.92 m	Medium Risk

System Architecture

- Real-time incidents acquired via RSS
- Rule engine working against live SPARQL endpoint (Linked Geo Data)
- Rules serve two purposes
 - Classifying incidents
 - Filtering irrelevant Linked Open Data
- Expert users can create their own rules

