



Copernicus Emergency Management Service

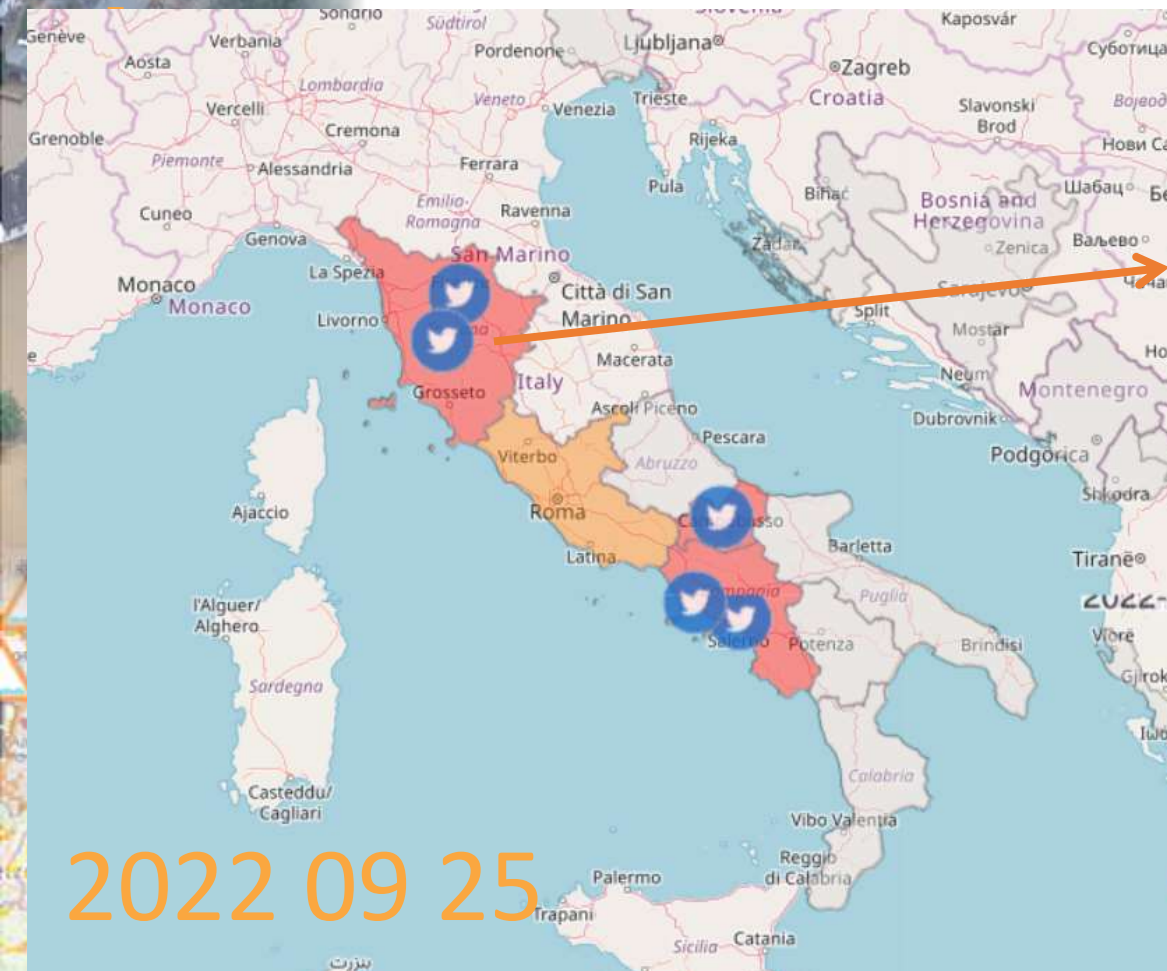
Social Media for Disaster Risk Management

17th EFAS ANNUAL MEETING

Valerio Lorini
27 09 2022



SMDRM



2022 09 25

www.efas.eu

Feature Info

Social Media Activity Analysis - Tweets

Social Media Activity Analysis

Report an Error

Tweets

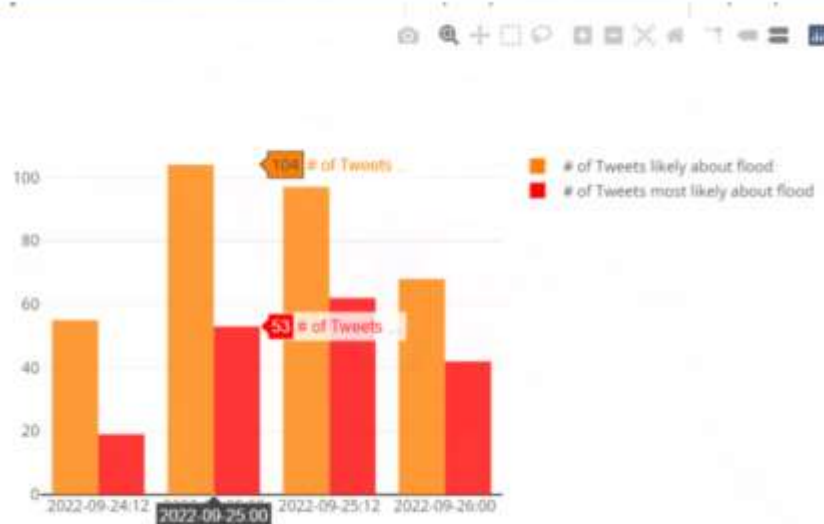
Region name	Date	Reference	Text	Link
Toscana	2022-09-24T12:43:06	0.968915881918861	Maltempo: allerta meteo Toscana passa da giallo ad arancione. Perturbazione prevista sulla regione è in rapido peggioramento. URL_	go to tweet
Toscana	2022-09-25T09:43:43	0.9440947771072388	Maltempo: Toscana pioggia record, auto intrappolate nel fango. Salvate persone in vetture bloccate. Notte di forti t_ URL_	go to tweet

Create Widget With this Data

Widget Name

CREATE WIDGET WITH THIS DATA

Feature Info





SMDRM

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Social Media Activity Analysis - Tweets Social Media Activity Analysis

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Tweets

Region name	Date	Relevance	Text	Link
Toscana	2022-09-24T12:43:06	0.9689115881919861	Maltempo: allerta meteo Toscana passa da giallo ad arancione. Perturbazione prevista sulla regione è in rapido pegg_ URL_	go to tweet
Toscana	2022-09-25T09:43:43	0.9440947771072388	Maltempo: Toscana piogge record, auto intrappolate nel fango. Salvate persone in vetture bloccate. Notte di forti t_ URL_	go to tweet

Create Widget With this Data

CREATE WIDGET WITH THIS DATA



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← Tweet



Ansa Toscana @AnsaToscana

Maltempo: Toscana piogge record, auto intrappolate nel fango. Salvate persone in vetture bloccate. Notte di forti temporali #ANSA

Translate Tweet



ansa.it

Maltempo: Toscana piogge record, auto intrappolate nel fango - Toscana Notte di maltempo forte in Toscana con temporali e precipitazioni abbondanti, oltre la media conosciuta, nella parte centrale della regione, specialmente sulla...



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What's under the hood...



Triggers:

- Automated – Flood P < 72h
- Manual

Twitter Filters PowerTrack:

- Regions names
- Cities > 80K (soon 15K)
- No Flood keywords

10K-100K Tweets per collection NRT



Emergency Management

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What's under the hood...

ec-jrc/SMDRM



Social Media Disaster Risk Monitoring aka SMDRM supports the analysis of disasters related data such as floods, and fires, extracted...

2 Contributors 4 Issues 4 Stars 0 Forks

github.com

GitHub - ec-jrc/SMDRM: Social Media Disaster Risk Monitoring aka S...
Social Media Disaster Risk Monitoring aka SMDRM supports the analysis of disasters related data such as floods, and fires, extracted ...

Machine Learning Neural Network

32K

 messages

In 10 Lang

META embeddings to

94

 languages

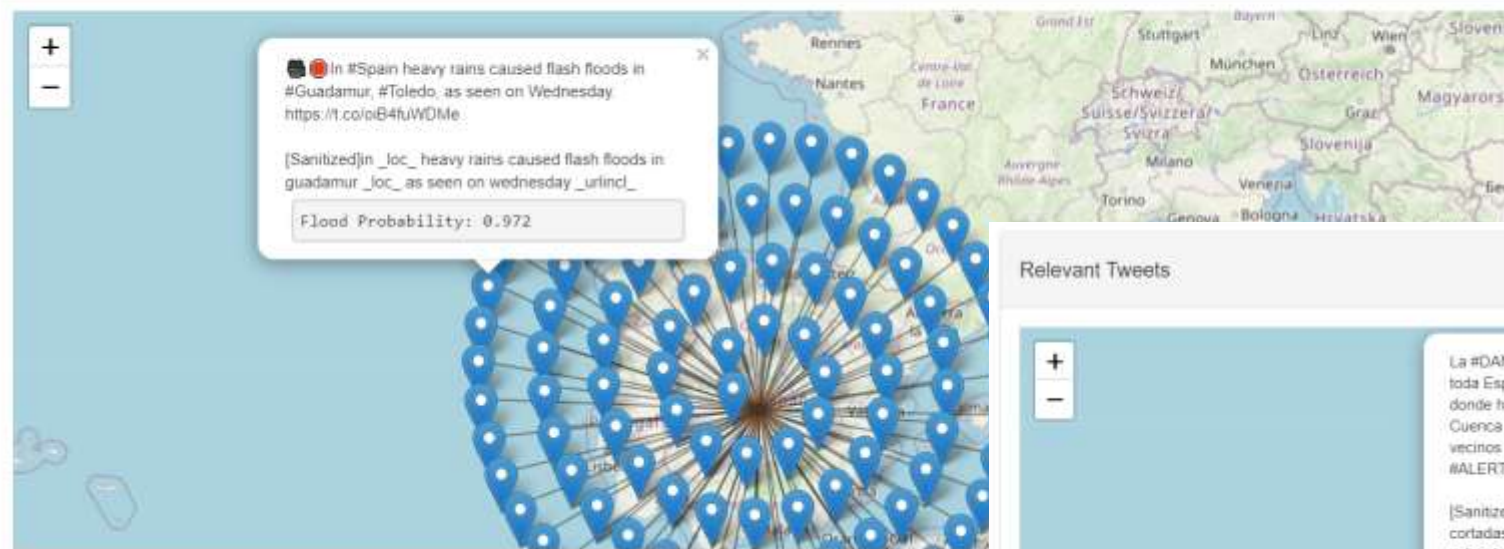


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What's under the hood...

Relevant Tweets



Relevant Tweets



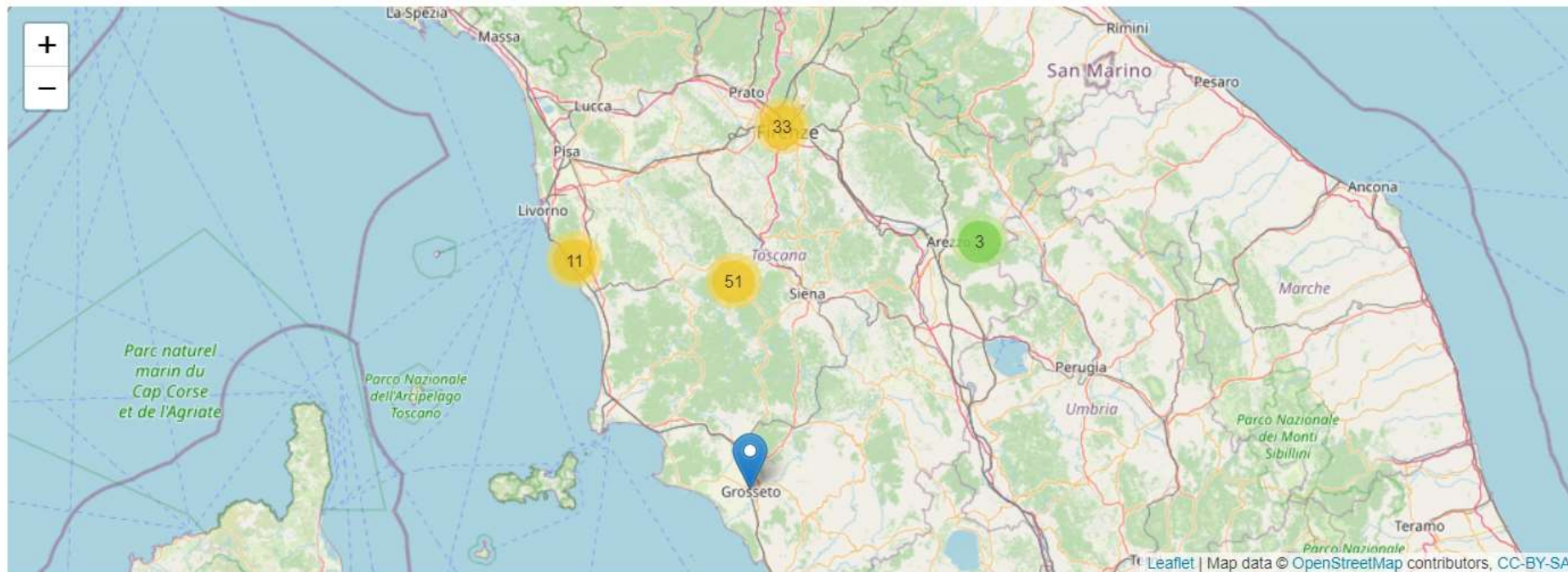


Emergency
Management

SMDRM

What's under the hood...

Relevant Tweets





Emergency Management

SMDRM

Future Developments

More data

From

Situational Awareness

To

Impact assessments

Integration with

Reporting Tools

better geocoding Images

P_flood	datetime	flood_probabi	full_text	DE Translati	NL Translati	img
0.964	14-07-2021 13:42:06	0.7799674869	Coulin et Viroinnet des nos fermes suite aux précipitations https://t.co/v4ZC46376 https://t.co/PCnDDYCLb	Coulin et viroinnet des Rues Fermées suite aux précipitations https://t.co/v4ZC46376 https://t.co/gjnxdyctb	Coulin etviroinnet des Rues Fermées Suite Aux Précipitations https://t.co/v4ZC46376 https://t.co/gjnxdyctb	
0.999	14-07-2021 14:48:07	0.9019529223	#Météo 🇫🇷 Pluie à #Rains et autour, les pompiers débordés #Name https://t.co/qps9piat https://t.co/ORJuhnoqr0	#Météo 🇫🇷 pluie #rains et autour, les pompiers débordés #name https://t.co/qps9piat https://t.co/orjuhnoqr0	#Météo 🇫🇷 pluie #rains et autour, les pompiers débordés #name https://t.co/qps9piat https://t.co/orjuhnoqr0	
0.903	14-07-2021 15:11:04	0.5041175915	Zelfde beek als gisteren, steeds minder ruimte voor het water #Heerlen #wateroverlast #Limburg #caumerbeek https://t.co/0v3wvbn9iC4	Zelfde Beek as Gisteren, Steeds Minder Ruimte Voor Het Water #Heerlen #wateroverlast #Limburg #caumerbeek https://t.co/0v3wvbn9iC4	Same stream as yesterday, less and less room for the water #Heerlen #water nuisance #Limburg #caumerbeek https://t.co/0v3wvbn9iC4	



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More Floods

From (Lisflood)

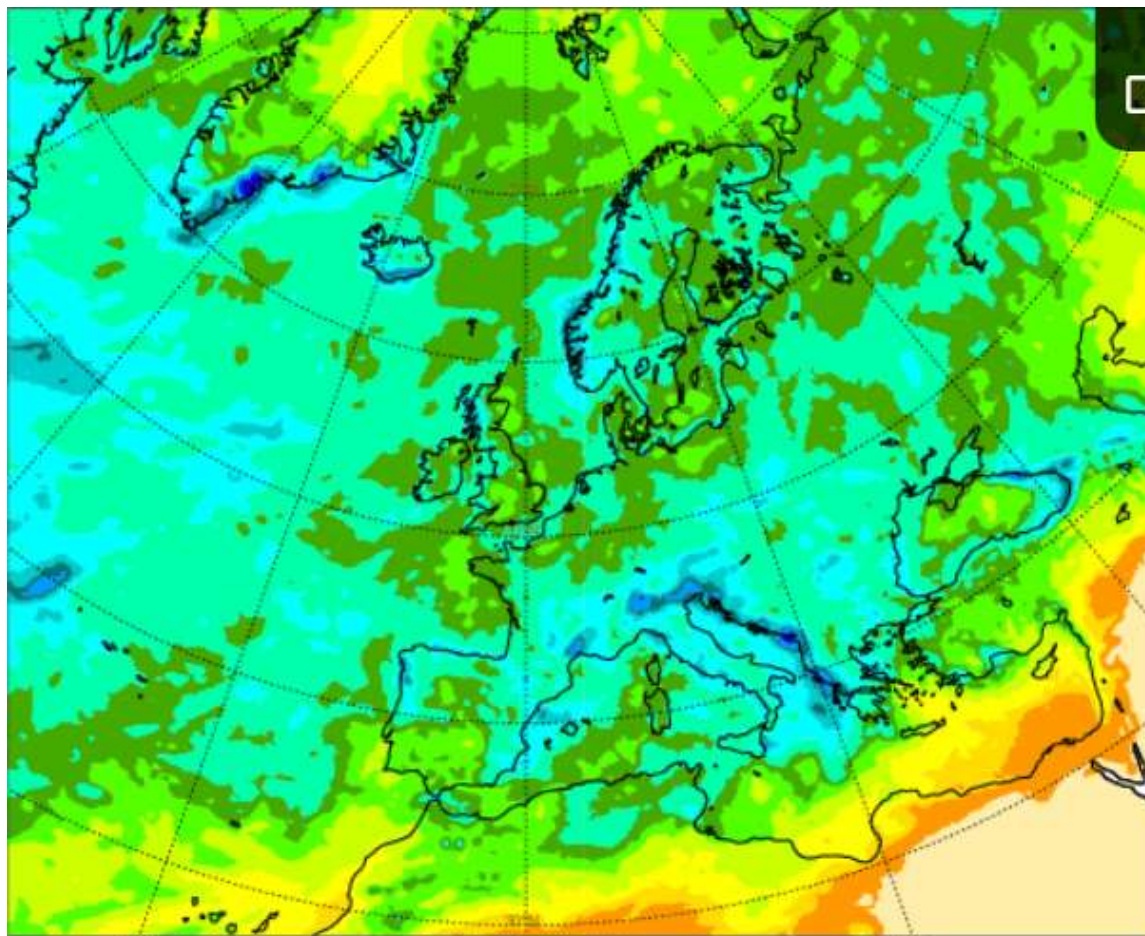
Riverine Floods

To (Precipitations)

Flash Floods

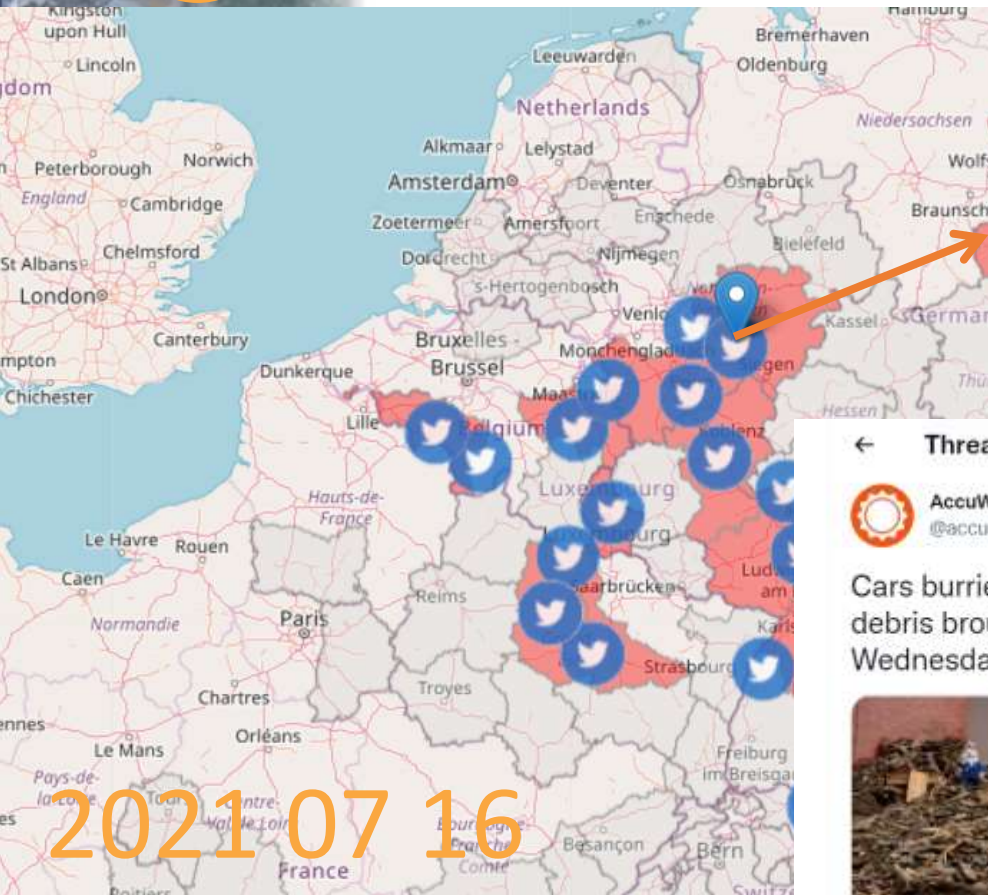
Extreme Storms

Reporting Tools





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2021 07 16



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Region name	Date	Relevance	Text	Link
Arnsberg	2021-07-16T18:00:01	0.9424404501914978	Streets, homes flooded in Hagen_Priorei as record rainfall wreaks havoc across western Germany MORE:_URL__URL_	go to tweet
Arnsberg	2021-07-16T12:55:44	0.9611276984214783	Cars burried in Hagen, Germany, yesterday with the debris brought by the flooding of the 'Nahma' river Wednesday ni_URL__URL_	go to tweet

← Threa



Cars burried in Hagen, Germany, yesterday with the debris brought by the flooding of the 'Nahma' river Wednesday night: bit.ly/3iilo0F

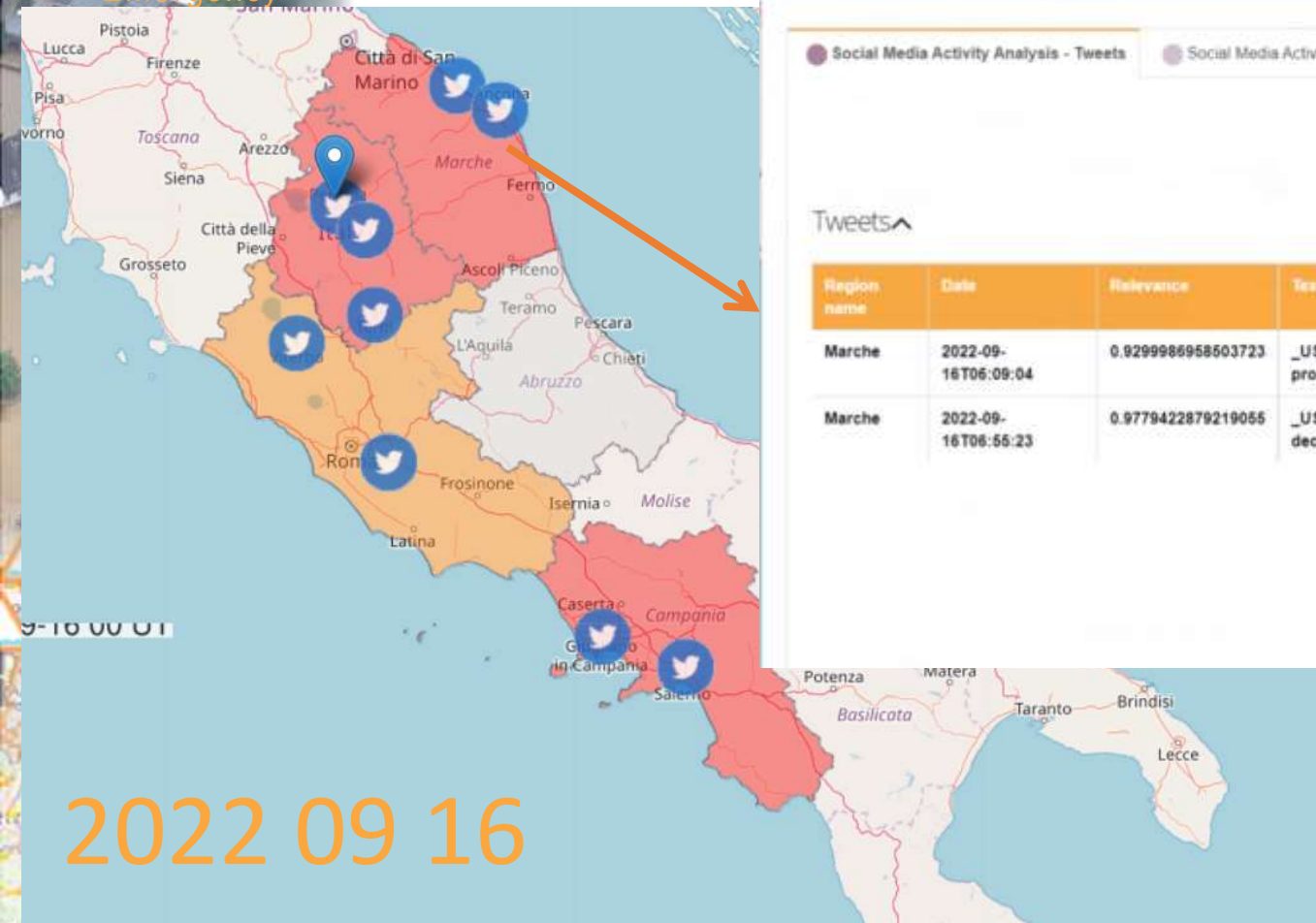


2:55 PM · Jul 16, 2021 · Twitter Web App



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Emergency



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Tweets

Region name	Date	Relevance	Text	Link
Marche	2022-09-16T06:09:04	0.9299986958503723	_USER_: _URL_ULTIMORA_URL_ Esondato il fiume Misa a Senigallia. Situazione critica nelle Marche investite da una vera e propria alluvione. Diver_URL_	go to tweet
Marche	2022-09-16T06:55:23	0.9779422879219055	_USER_: Senigallia La mia regione colpita da un terribile nubifragio con esondazione disastrosa di un fiume Sei persone decedute h_URL_	go to tweet

Create Widget With this Data

Widget Name:

CREATE WIDGET WITH THIS DATA

Thank you





Feature Info

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 Social Media Activity Analysis

[Report an Error](#)

Tweets

Region name	Date	Relevance	Text	Link
F.A.T.A.	2022-08-30T20:27:50	0.9567736983299255	PESHAWAR/NOWSHERA: Eight persons were killed and three others injured due to rain and flood-related incidents in Kh_URL__URL_	go to tweet
N.W.F.P.	2022-08-31T08:16:00	0.9358084797859192	_USER_: Corps Commander Peshawar Lieutenant visited the flood affected areas and assured to help the civil administration in every po_URL_	go to tweet
N.W.F.P.	2022-08-29T19:23:45	0.9381508231163025	_USER_: Devastating floods in peshawar,charsada_URL_amp_URL_nowshera are putting millions of peoples ,children at risk. Kp govt is on the g_URL_	go to tweet
N.W.F.P.	2022-08-31T10:24:47	0.9646157026290894	_USER_: Commander Peshawar visited the flood affected areas and met the affected people and reviewed all their essential items. PakA_URL_	go to tweet

2022 08 31

