Investigating how users react to fake news based on their personality traits

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Fake news can have important percussions on political, social and economic balance within and between countries: **Cognitive Warfare.**

Certain **personality traits** may play a key role in considering news as real or fake.

We aimed at developing a method able to **characterize user's profile in trusting fake** news in terms of implicit behavior (IAT) and visual patterns(eye tracking),

18 People on target
Age 32 ± 7
11 F - 7 M

Eye-tracking

IAT Implicit Association Test (IAT)

Participants performed the **test remotely** where 8 posts (randomized) were presented.

The first part of the test was dedicated to the recording of visual behavior through **eye tracking**.

The second part was dedicated to the performance of the 3 **IAT** (for each personality trait considered)
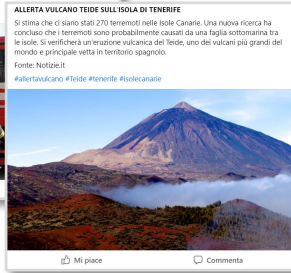
How do you feel?

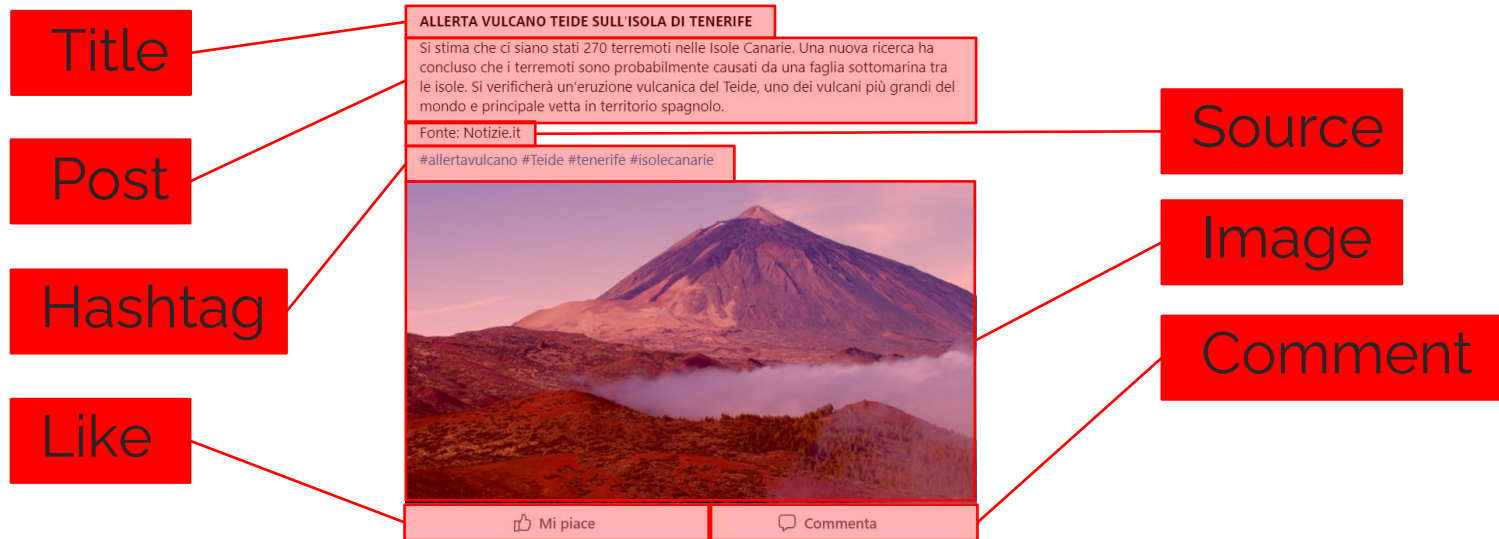2 random images
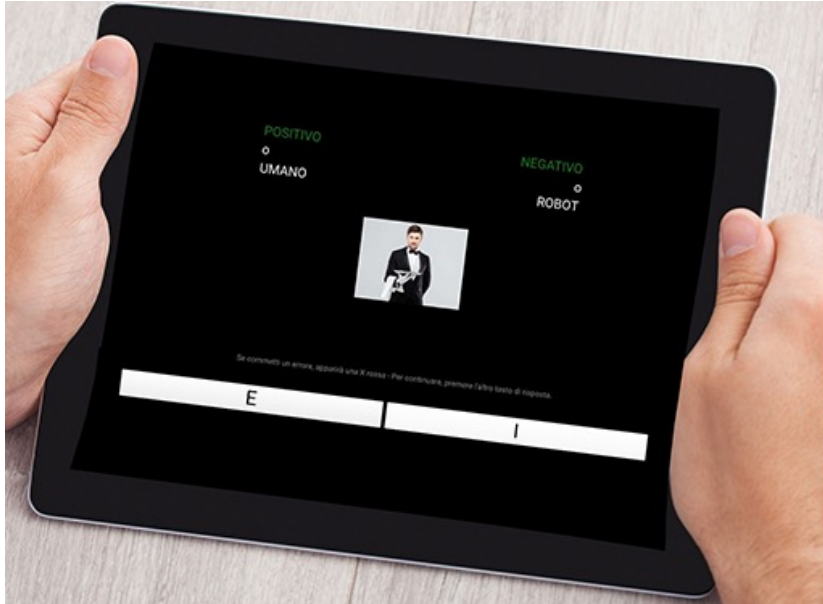
Fake or Real?

x 4

IAT

x 3

Each post remained on screen for 22 seconds.

All posts were made according to the facebook template with the same features.

Title

Post

Hashtag

Like

ALLERTA VULCANO TEIDE SULL'ISOLA DI TENERIFE

Si stima che ci siano stati 270 terremoti nelle Isole Canarie. Una nuova ricerca ha concluso che i terremoti sono probabilmente causati da una faglia sottomarina tra le isole. Si verificherà un'eruzione vulcanica del Teide, uno dei vulcani più grandi del mondo e principale vetta in territorio spagnolo.

Fonte: Notizie.it

#allertavulcano #Teide #tenerife #isolecanarie

Mi piace | Commenta

Source

Image

Comment

Open-Mindedness

A propensity for new ideas and experiences

Emotional Stability

Represents emotional experience and the ability to regulate emotions

Conscientiousness

Propensity to perform a task diligenlty and to be responsible

Real and Fake posts

This post reports on the introduction of four phones inside a prison through the use of a drone

CELLULARI IN CARCERE FATTI ENTRARE CON DRONI

Quattro telefoni cellulari sono stati fatti arrivare a detenuti del carcere Pagliarelli di Palermo grazie ad un drone.
Gli agenti della penitenziaria hanno notato il drone volare vicino alle celle di massima sicurezza e fermarsi nei pressi di una finestra dove erano rinchiusi detenuti per mafia e camorra.

FONTE: ANSA

#cellulari #droni #carcere #detenuti

👍 Mi piace   💬 Commenta

ATTI OSCENI IN UN PARCO CON BIMBI, ARRESTATO IL BLOGGER DAVID PUENTE.

Sorpreso a compiere atti osceni sulla panchina di un parco, protagonista è il blogger David Puente. Giunta sul posto la polizia ha proceduto all'arresto per atti osceni in luogo pubblico aggravato dalla presenza di bambini.
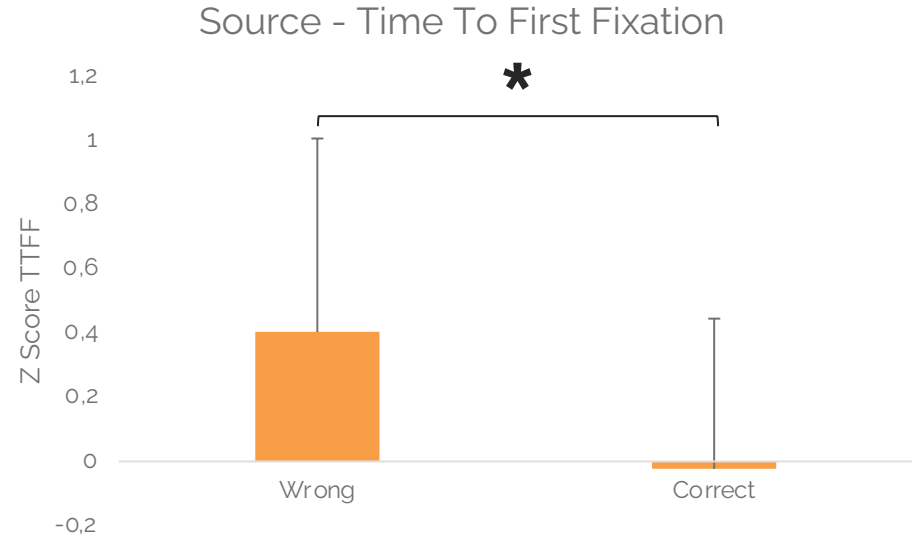
Fonte: Ansa

#arrestato #blogger #pedofilia #attiosceni

👍 Mi piace   💬 Commenta

This post reports the news of blogger David Puente's arrest for indecent exposure in a public place
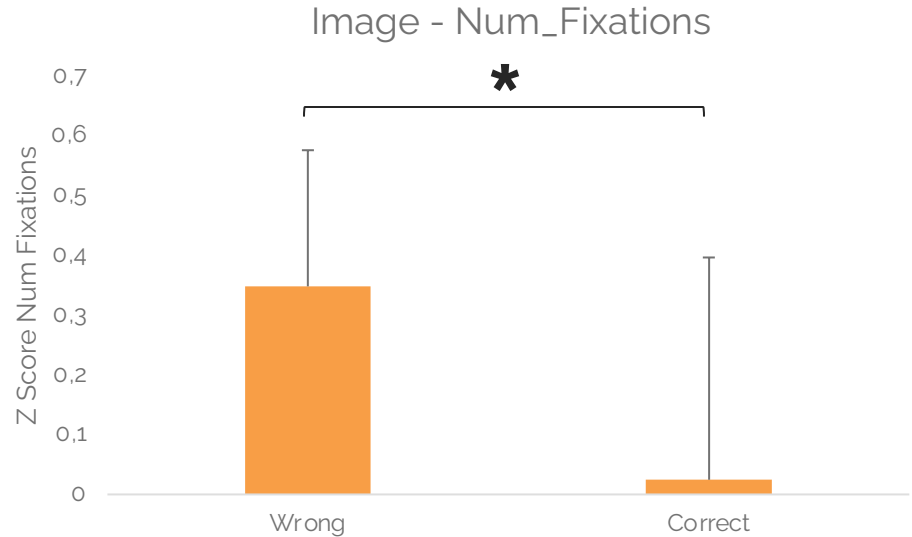
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Regardless of the nature of the stimulus (Real or Fake), the time taken to register a fixation within the ROI Source is significantly higher (p = 0,023) when misidentifying a real or unreal news item than when guessing.
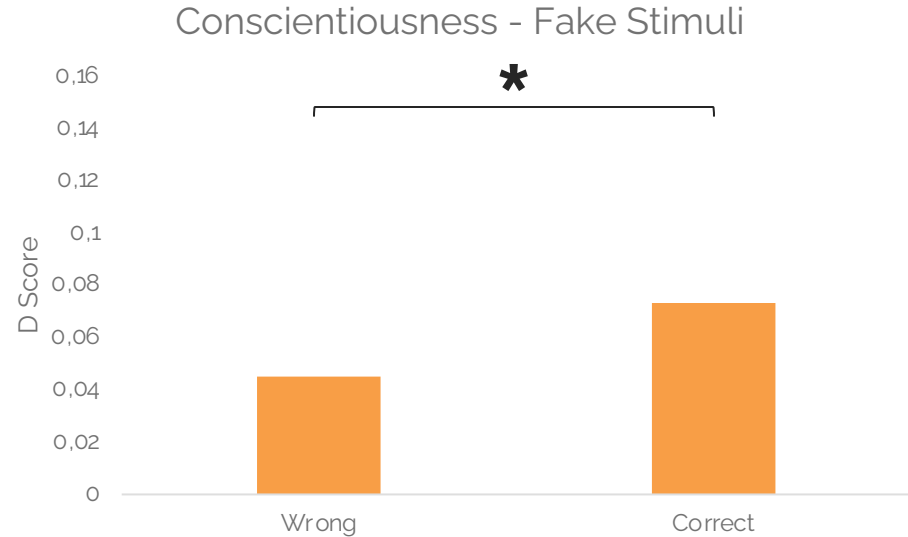

Source - Time To First Fixation

Users reported significantly more fixations (p = 0,04) within the ROI Image when they did not recognize the Fake New as Fake.

Image - Num_Fixations

Users reported significantly higher (p = 0,04) values of conscientiousness when they recognized the Fake News as fake than when they did not recognize the Fake news as such.

Conscientiousness - Fake Stimuli

Conclusions

The evaluation of **personality traits** and **eye tracking pattern** can provide useful information to profile users who are prone to trust fake news.

More users are necessary to validate the results as they have been derived from 18 participants.

Additional features (e.g. Facial expression) and measures (e.g. neurophysiological signals like EEG, ECG, EDA) can increase the accuracy of the user profiling.

Any questions, comments, suggestions?

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