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UNECE Workshop on Gender Statistics

Using big data to study violence against women and girls and its challenges online

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ISTAT

Outlines

- On line Gender Based Violence, cyber-violence: different names and new tools of analysis
- Using social media to detect online violence against women and girls
- First Results
- Next steps

New forms of gender-based violence

We are constantly connected and most of our daily actions happen through the internet. **The distinction between reality and virtual reality is obsolete**, from a relationship point of view and from a violence point of view. The ICT is only a new tool to perpetuate gender-based violence against women and girls which takes place in a context of widespread systemic gender-based discrimination.



New tools of analysis

ISTAT, is now pursuing the goal of producing data on the phenomenon by pursuing two parallel paths:

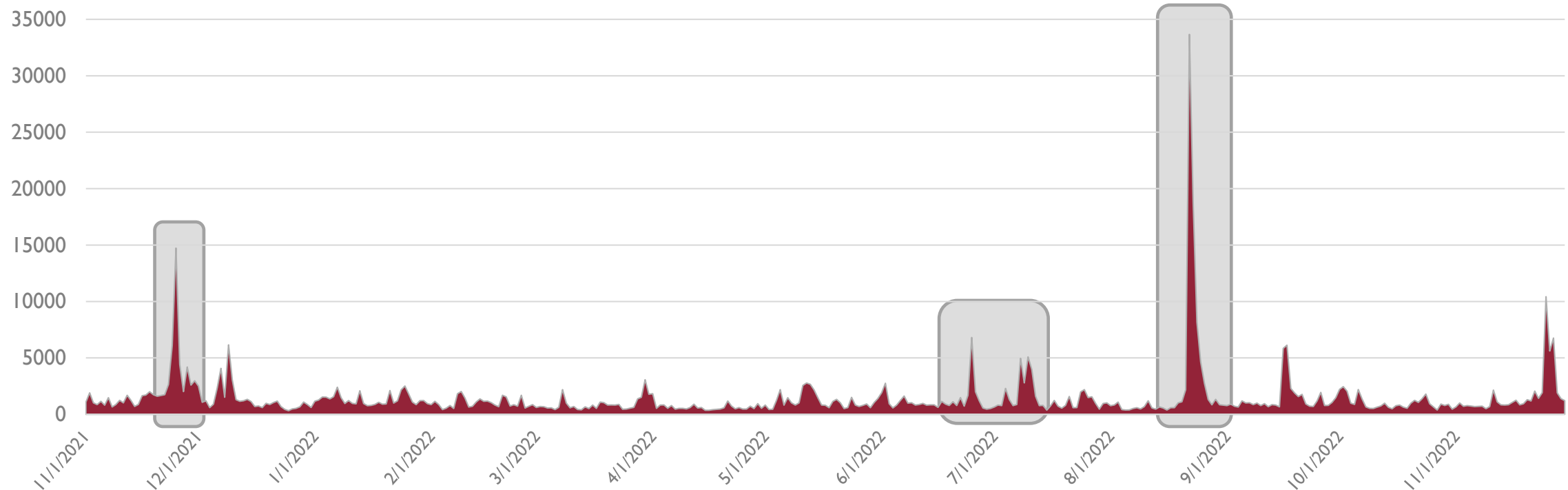
➔ Introducing new questions specifically dedicated to cybercrime and online violence in the Citizen's Security Survey (currently underway)



Analysing Big Data, with reference to interactions on social media. In this presentation only this second statistic is briefly described

Using social media to detect online violence against women and girls

Since March 2020, Istat has launched an experimental study on social messages aimed at providing, in real-time, information on the social image of gender-based violence and gender stereotypes.



Using social media to detect online violence against women and girls



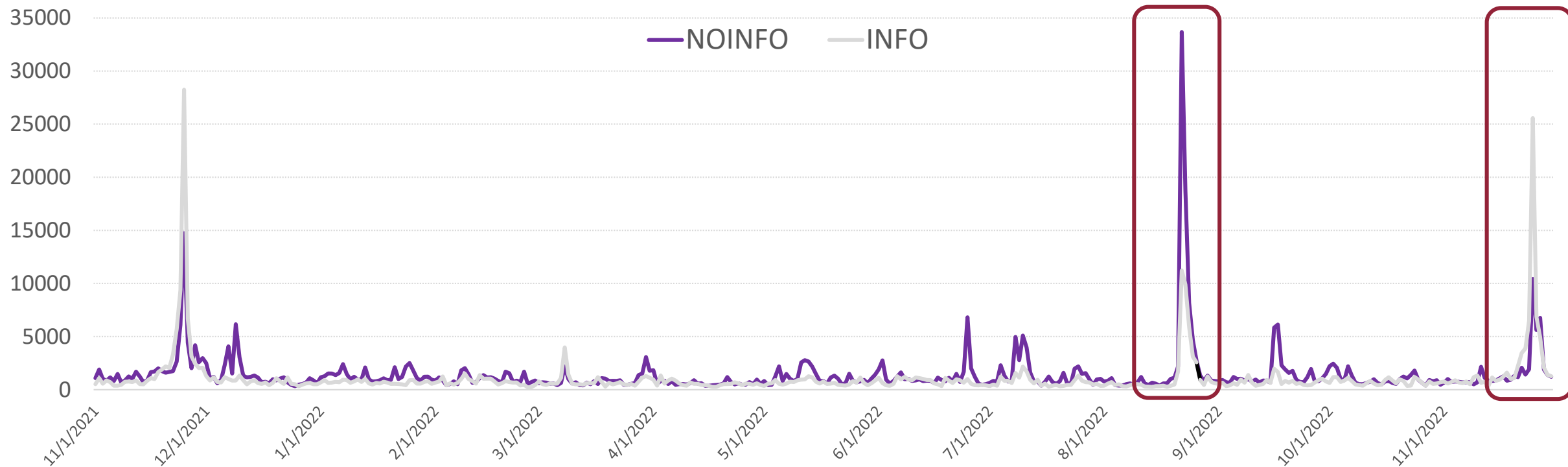
Measuring how the phenomenon is represented on social media and whether they are used to counter, condemn and isolate the culture of gender stereotypes and gender-based violence or whether, on the contrary, by exalting the negative side of its use, they contribute to its persistence and spread



Through machine learning techniques, it is possible to perform topic analysis on content from news, facts, and events in the virtual context in which they are commented on and reprocessed within digital communities (such as, for example, secondary victimization)

First results: detecting info and no-info contents

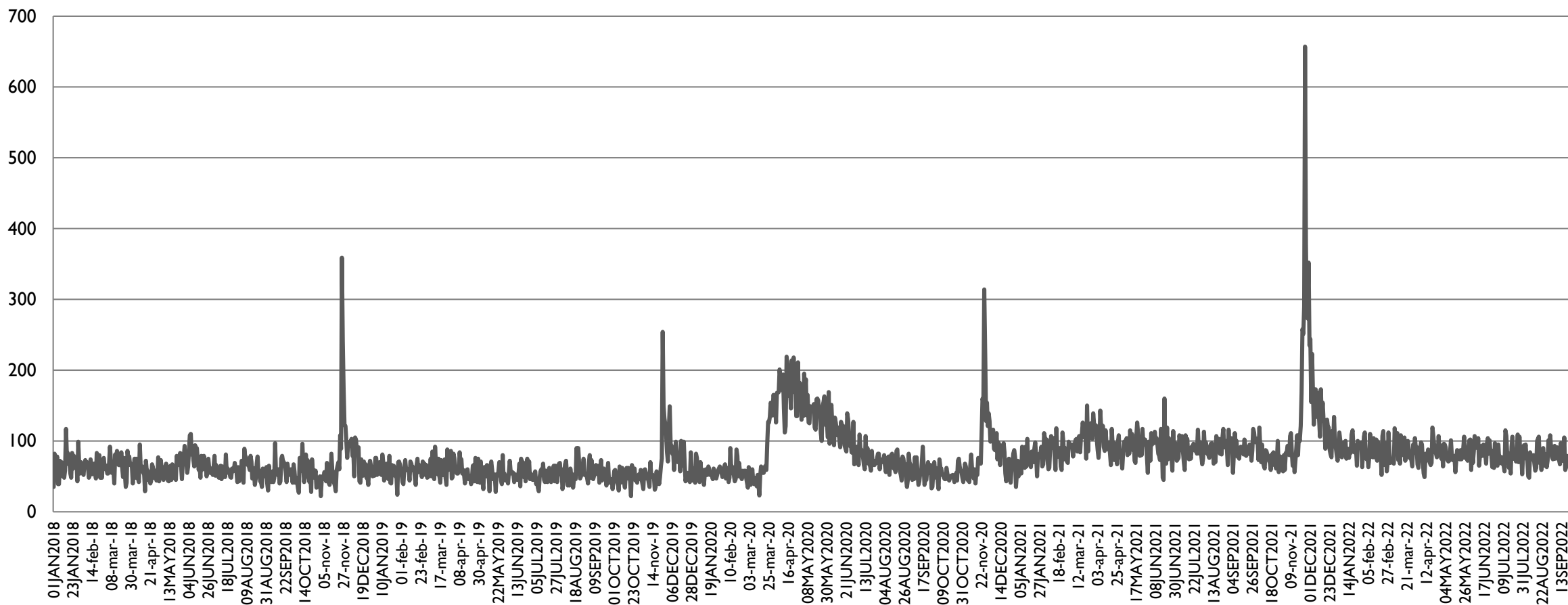
Chart I - Daily trend on social media of journalistic (info) and non-journalistic (no-info) posts (Period November 1, 2021 - November 30, 2022) Absolute values



Source, Istat 2023

First result: comparing with other sources of data

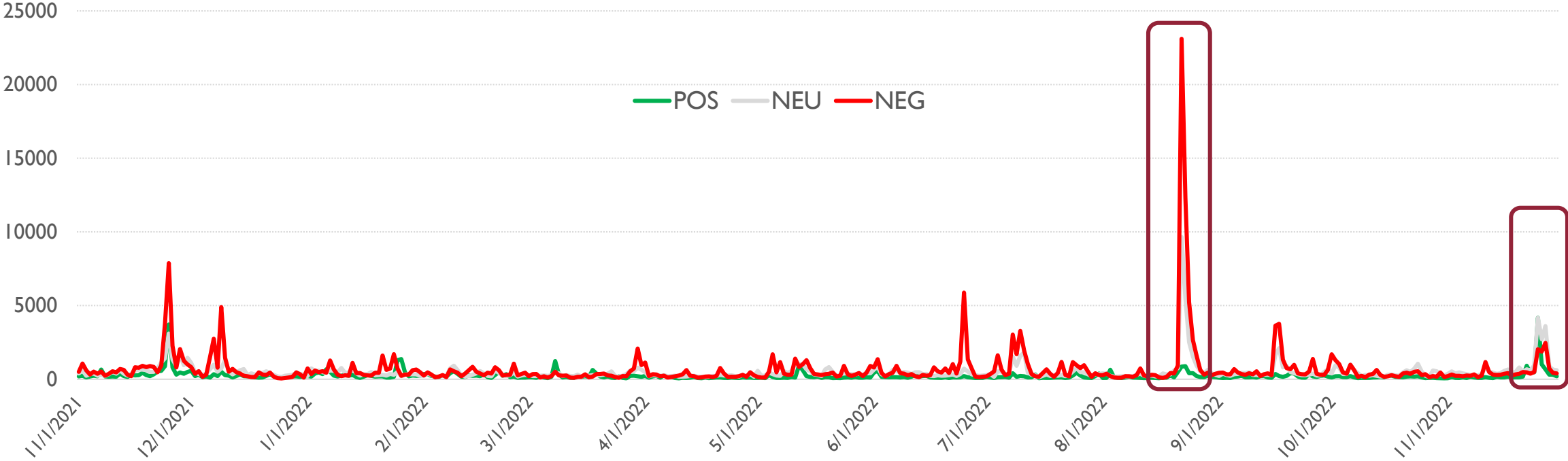
Chart 2 - Daily trend of total calls to 1522 (Period January 1, 2018 - September 25, 2022) Absolute values



Source, ISTAT, Violence against women, 2023 <https://www.istat.it/en/violence-against-women>

First results: sentiment analysis

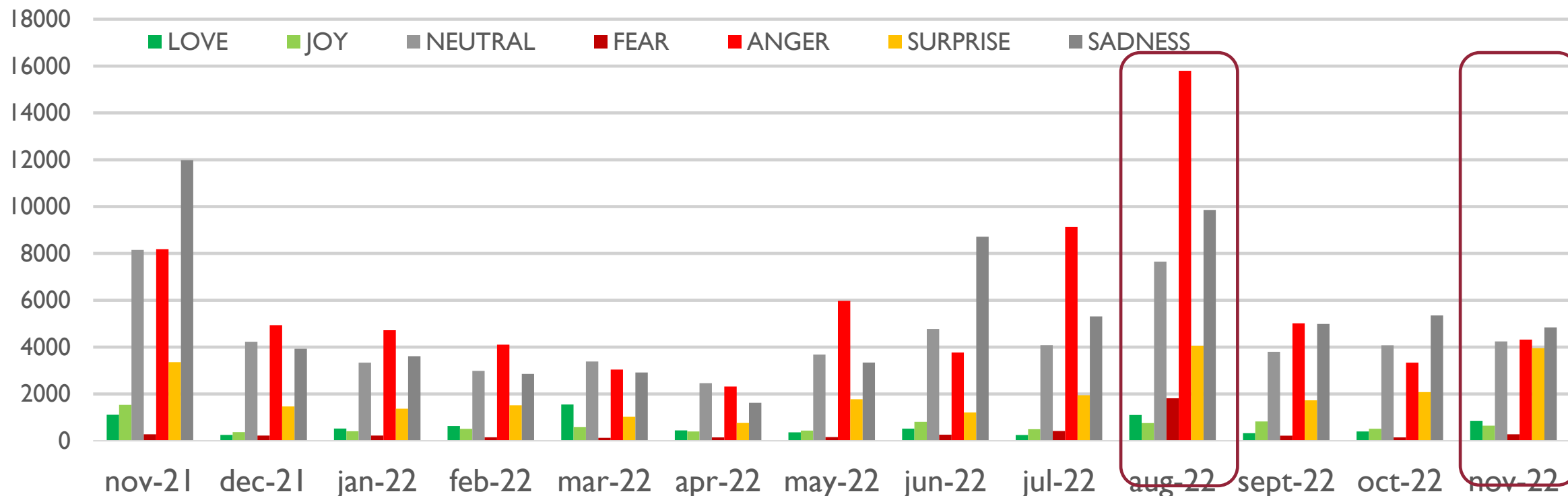
Chart 3- Daily trend on social media of sentiment expressed in posts with positive, negative, neutral comments (Period November 1, 2021 - November 30, 2022). Absolute Values



Source: ISTAT, 2023

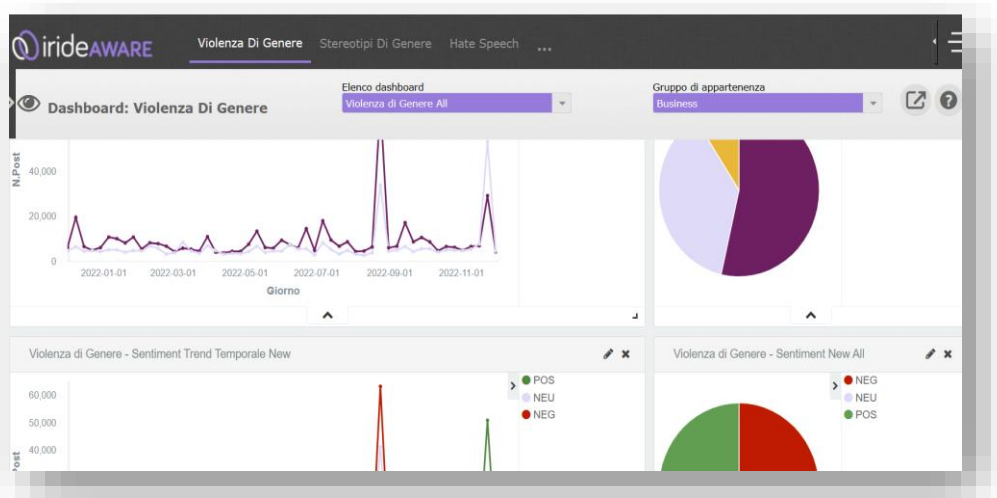
First results: emotion detection

Chart 4 - Monthly trend of emotional reactions on social media containing posts with negative comments (Period November 1, 2021 - November 30, 2022) Absolute Values



Source: ISTAT, 2023

Next Steps



New fields of analysis using the same tool

- ✓ Focusing relevant themes linked to GBV such as femicide, body shaming, rape and sexual violence
- ✓ New category of analysis has been recently introduced: *hate speech* and *outrage*.

Integration with other sources of data

Following up awareness campaign linked to helpline 1522

Data from 1522 national helpline against VAWG

Topic analysis on specific episodes and linkage with secondary victimization

Data from Gender stereotypes and social image of VAWG survey