

COVID-19 ANALYSIS

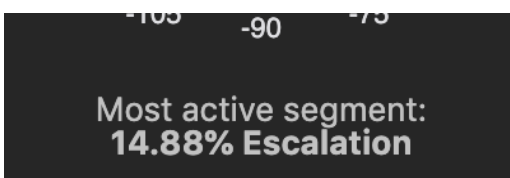
Social Energies in Pandemic Response

Prisma Analytics' invention, the Circumplex of Social Energies, is a comprehensive tool designed based on essential content analysis algorithms that place value on complex social psychology, with keen attention to emotions, mood, and what we later called social energies. This is a concept inspired from physics, somehow placing us in the good old school of soft sciences striving to acquire the rigor of nature and hard sciences.

The circumplex highlights 14 types of social energy, from inaction to action, from conflict to agreement, developed in the context of the Covid-19 pandemic. The clusters of data points on each social energy layer are social-linguistic measurements of affective content in news stories. The measurement is two dimensional: the length of the radius on which the data point is placed is an indicator of the intensity or arousal of the affect: the further away from the center of the circle, the more aroused an emotion is. The angle on which the data point is placed indicates the valence of the affect: the further away from angle 0 on the right side of the circle on the upper hemisphere, the more positive and active an emotion is; the further away from angle 0 on the lower hemisphere, the more negative and active an emotion is. The frequency of each data point indicates how often the linguistic indicator that measures the social energy of the layer on which it is placed is found in the supporting data - news stories about coronavirus.

The Circumplex of Social Energies is, thus, a cutting edge analysis of emotion, affect, and sentiment in text data, that revolutionizes sentiment analysis. The circular logic of the angle and radius system is capable of capturing and illustrating how emotional states feed and flow from one to another, moving beyond the dualistic perception of emotions as positive and negative.

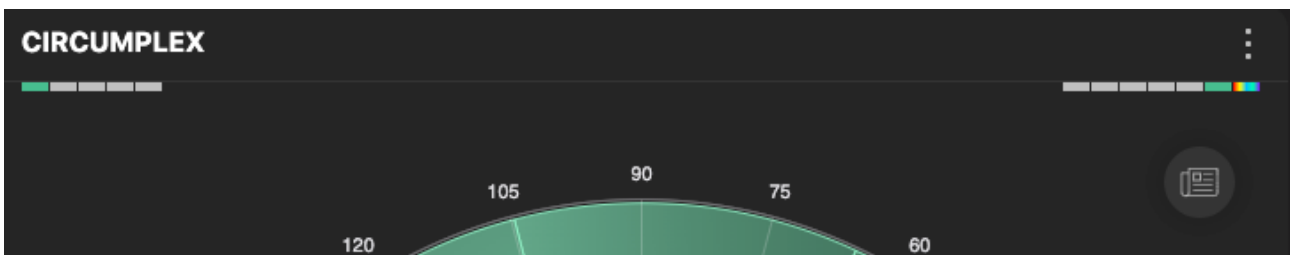
Observe which is the most active energy layer on the circumplex, by checking the dot under the circumplex.



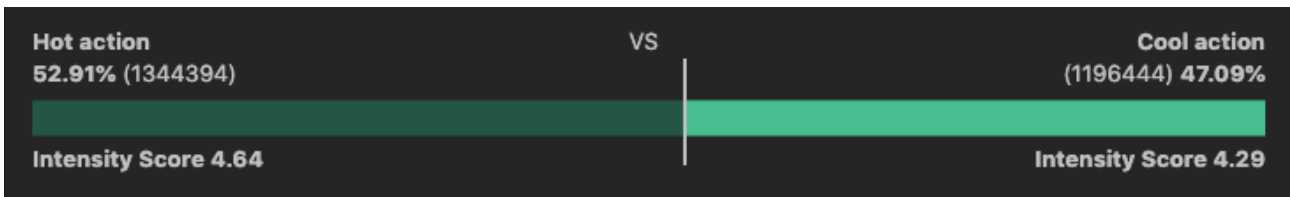
Observe how populated each energy layer is by referring to the Trending Social Energies panel. The absolute and relative values of social energies indicate which is the predominant response to the Covid-19 crisis, in our global media sources. Explore the labels on the energy layers of the circumplex by clicking on the buttons above the circumplex.

The buttons on the left allow you to set various levels of transparency to the data points, so that you have access to the geometric space of the circumplex, with its layers and labels. The buttons on the right allow you to set various levels of transparency to the geometric space of the circumplex, and also to activate the original color codes of layers.

The data points on the warm colored layers indicate less talk and more action, while those on the



cool colored layers indicate more talk and less action. We also calculate the shares of these two main trends in the bar above the circumplex:



Specific Topics

This panel displays a list of topics that are specific to the management of the Covid-19 crisis. Each topic has an associated score of pessimistic language in the news stories that address or mention it. We devised this score as an assessment of the outlook that communities facing the given topics have on their situation. The global crisis of protective gear, the struggle to find a vaccine, the constructive competition for a cure, the impact of finding more and more positive tests, all of these can be felt or assessed in the pessimistic language that accompanies them. Click on each column in the header of the list allows you to sort the data alphabetically and numerically.

SPECIFIC TOPICS

Topics that are specifically about the Covid-19 pandemic, with their associated share of pessimistic language.

Topic	Frequency	Pessimism(%)
Blood pressure	14	64
Cardiac	11	18
Chloroquine	174	6

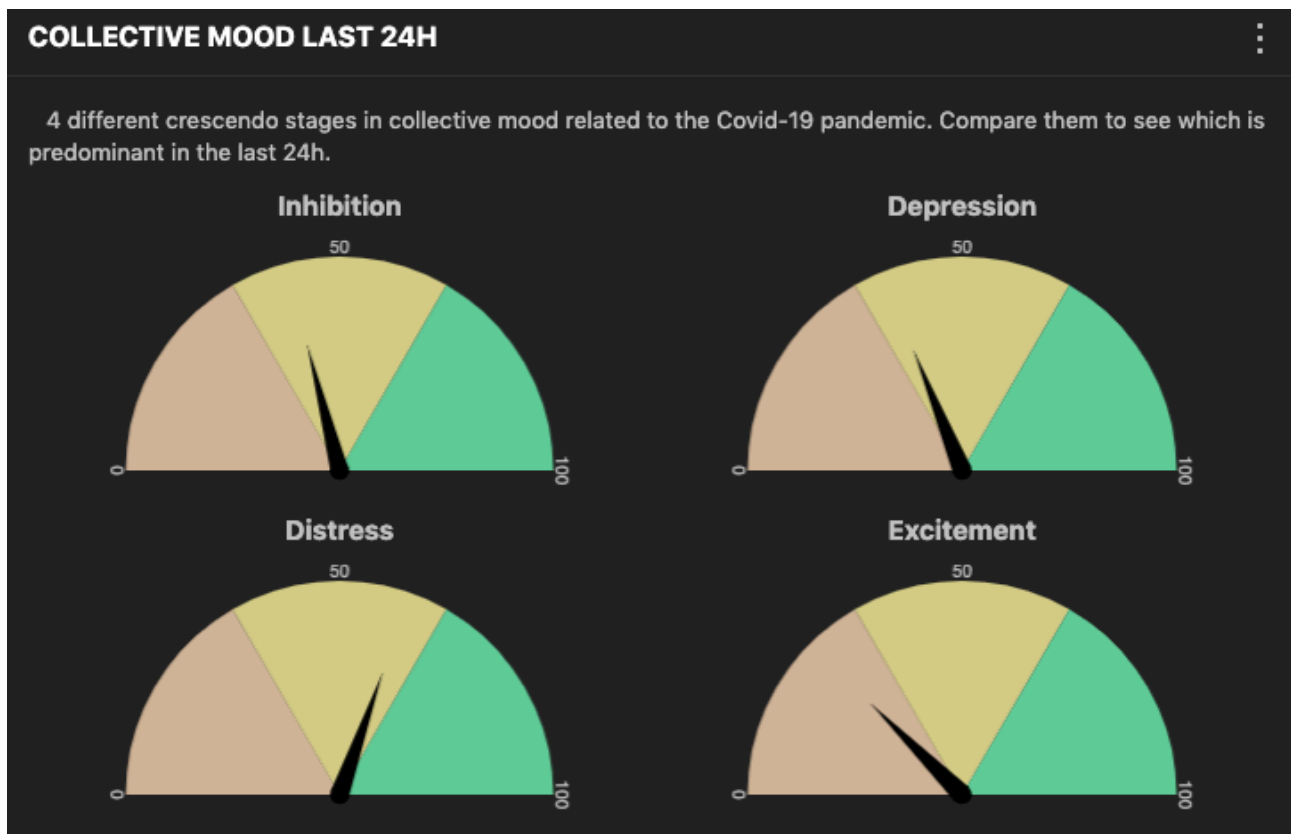
Trending Social Energies

This panel is a descriptive addition to the circumplex of social energies. Given the circular logic and visualization of the circumplex, and especially the volume of data points on the circumplex, we have extracted these descriptive statistics with absolute and relative values, which clearly indicate how social energies in news stories about Covid-19 are trending. The 14 layers of social energy from the circumplex are displayed by descending values, which grasps what attitudes and moods are more expressed and expressive in the news stories.



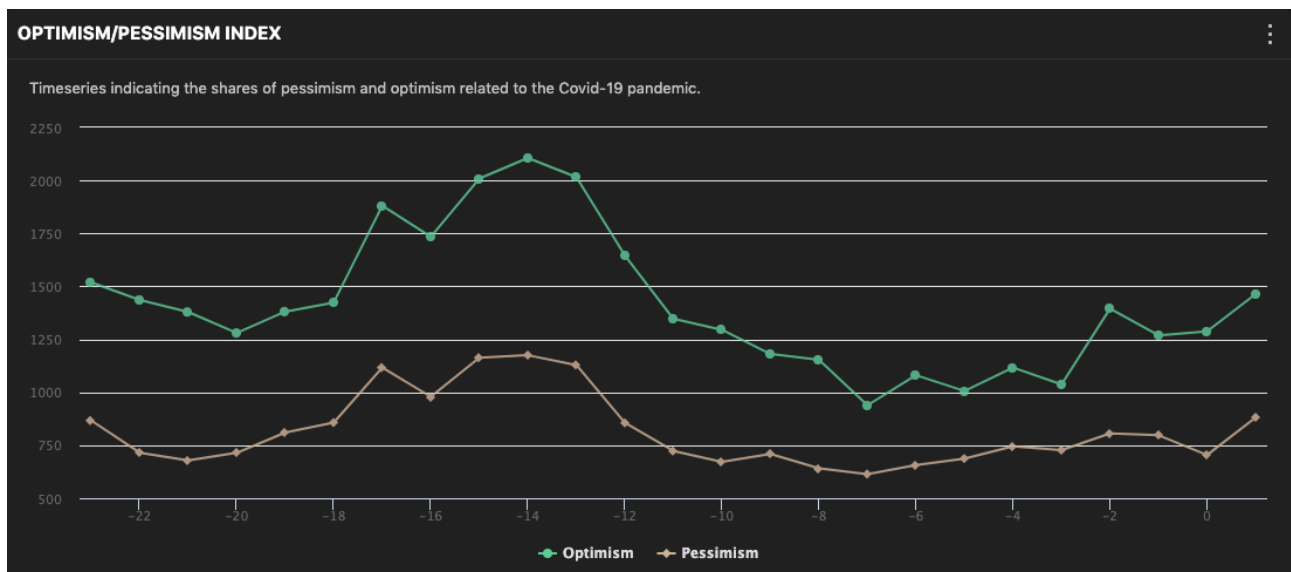
Collective Mood Last 24h

These gauges indicate the intensity of four different collective moods, which are related to each other in an increasing affective logic. Inhibition - Depression - Distress - Excitement are arranged from the least active to the most active collective attitude towards the Covid-19 crisis. They are four linguistic indicators that observe the affective dimension of the media discourse relative to the crisis. Each of them can be read as a standalone measure, but the more meaningful look comes from comparing them, in order to observe which is the least intense and which is the most intense - these two extremes will give the span of the collective mood on the 4 reference points.



Optimism/Pessimism Index

In our observations of the Covid-19 crisis with the Circumplex of Social Energies, we have observed that Fear was not necessarily the most active segment. This seems counter-intuitive, as most sentiment analysis experts would incline to treat fear, panic, and anxiety as the leading emotions in the current situation. Indeed, human nature is such that we are afraid of the unknown and we are afraid of danger. But what the circumplex shows, when querying Covid-19 and coronavirus in our global data, is that Escalation and Hope are generally the most active. This dynamic inspired us, at Prisma Analytics, to build this dual index that measures optimism and pessimism. We are particularly interested in showing which is the most active of the two, because, just as with fear, it would be commonsensical to expect pessimism to dominate. But evidence suggests that optimism is higher, which is a very challenging outcome: why is that? The time series shows hourly measurements of the two outlooks, for the last 24 hours. Compare and contrast.



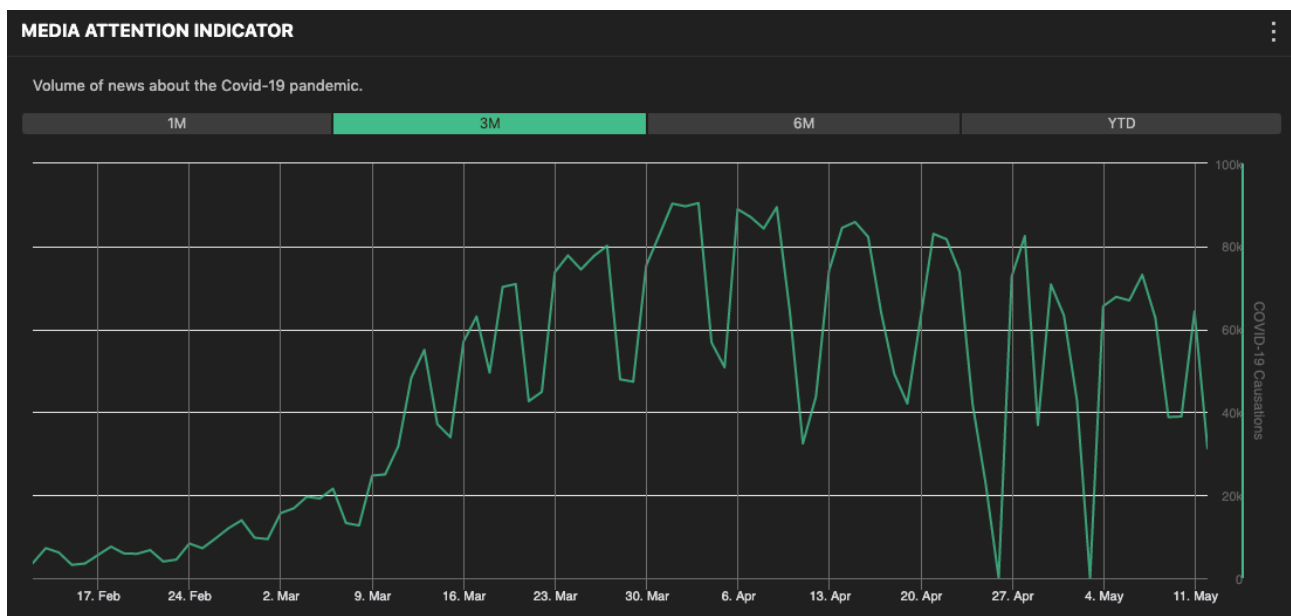
Escalation

Throughout the Covid-19 crisis, Escalation has been the most active Social Energy Layer on the circumplex. It is quite understandable, given that in the western hemisphere - but not only - humanity has been on the ascending curve in the spread of the coronavirus, such that things could only escalate. We have built a different tool, the Escalation Gauge, to observe how active the state of humanity is in the news stories. The gauge has three levels - Inaction, Escalation, Action - and measures whether the general mood in news stories is passive, amounting towards action, or active.

Media Attention Indicator

This time series observes the volume of news stories in our pool of global data sources, which mention or refer to Covid-19 and the coronavirus.

The panel offers the possibility to display the data in 4 different time frames: one month, 3 months, 6 months, and one year.



Worldwide Confirmed Cases

This heat map displays geographic, country-based updates on Covid-19 cases, based on official reports from governments, centralized by the World Health Organization. This panel brings factual information about the spread of the coronavirus, which can be helpful in contextualizing the discursive analysis offered by the rest of the panels in our Prisma Analytics Covid-19 dashboard.

Social Energy Temperature

Inspired by the thermometer used in social psychology to measure the intensity of a person's or a group's experience, we have built 4 thermometers that contextualize the information provided by the circumplex, by the media attention indicator, and by the specific topics ticker. The context is discursive, as these graphs illustrate the time orientation, the tone, the level of energy, and the level of realism in the news stories covering Covid-19.

We are interested to see, in time, whether the stories move from a present tense perspective towards a future oriented perspective. Such a shift might indicate either that humanity approaches the end of the crisis by its own dynamic, or that a solution that goes beyond management is possible. We are interested to grasp the tone of the stories, which can nuance the social energy illustrated by the circumplex. A negative tone when the trending social energy is Escalation might give different insights than a positive tone in the same social energy. We are interested to grasp the level of energy in stories. Is reporting more apathetic, or more intense? We are interested in seeing how realistic reporting in stories is. Are the news more factual, or more fantasizing?

Daily Cases

This is a time series displaying historic and daily updates on Covid-19 cases, based on official reports from governments, centralized by the World Health Organization. Check the status of cases confirmed as infected, recovered, or deceased. This panel brings factual information about the spread of the coronavirus, which can be helpful in contextualizing the discursive analysis offered by the rest of the panels in our Prisma Analytics Covid-19 dashboard.