On 11 June 2020, the World Health Organization (WHO) hosted an EPI-WIN COVID-19 webinar on “artificial intelligence and social listening to inform policy”.

Misinformation has the potential to spread like a virus, and such “infodemics” have the potential to hamper the global response to Coronavirus disease (COVID-2019). To combat this, a number of organizations have already started to employ novel technologies to listen to citizens and turn opinions expressed online into real time data to inform policy decisions in a timely manner. The objective of the webinar was to share lessons learned in social and web analytics for health policy, particularly in the context of COVID-19.

Speakers included Flavia Milano, a Senior Specialist in Civil Society at the American Development Bank; Harry Wilson, Chief Product Officer with the social enterprise Citibeats; and Marcelo D’Agostino, a Senior Advisor in Information Systems for Health at the Pan American Health Organization (PAHO).

Individuals’ perceptions form their reality, and the impact of perception on the behaviour of individuals and populations can have significant social and health impacts. For example, in many countries, the perception of food insecurity as measures to curtail transmission of COVID-19 were tolled out resulted in stockpiling of food and other goods, which in turn led to shortages of some items in stores. In addition to tackling transmission of the virus itself through public health interventions, treatment of cases and efforts to develop vaccines and treatments, pandemic response also requires attention to the “citizen dimension” of local disease outbreaks; this perspective requires policymakers to understand and respond to people’s perceptions and perspectives.

The citizen dimension has important implications for the sustainability of public health interventions, and for understanding potential secondary impacts. For example, populations may experience “fatigue” with social distancing or lockdown measures, or interventions may exacerbate existing problems such as
food insecurity that may not be readily apparent. Authorities are facing the challenge of making big
decisions, quickly and under pressure. They therefore need rapid access to information to inform their
decision-making processes in response to COVID-19, to ensure policies are aligned with the needs of
communities. Fortunately, this information is more accessible than ever thanks to the growing use of
smart mobile devices; often, rather than gathering data, the challenge is to make sense of the enormous
quantities of information already available.

Advances in artificial intelligence (AI), for example in the domain of text analysis, present one solution.
To date, however, these technologies have primarily been used by large companies for marketing. One
example of an initiative to employ these technologies to strengthen decision-making in the face of the
COVID-19 pandemic is CiviClytics, a tool developed by the social enterprise Citibeats. The purpose of
CiviClytics is to map the quantity and intensity of online discussions by topic across individual countries,
and has recently been deployed to measure the perceptions and concerns expressed online by the
citizens of Latin America and the Caribbean in regards to the COVID-19 pandemic. The tool encompasses
data collection, AI analysis, generation of user-friendly outputs, and formulation of recommendations to
respond to these online trends. It integrates use of anonymized private data alongside data provided by
government agencies. It also provides a “thermometer” of public opinion, and allows for flexibility to
address needs of different localities and demographic groups. A major priority for the platform’s
development is localization to each country; for example, there is a wide variety of ways that
communities can refer to the same topic which are often at odds with standardized terminology.

Marcelo D’Agostino outlined PAHO’s aim of supporting countries and institutions to unite and
collaborate virtually to combat the global pandemic. He highlighted examples of an initiative supported
by the United Nations and its agencies to employ AI including UN Global Pulse, which uses speech-to-
text technology to support responses to the COVID-19 pandemic. A number of challenges for the use of
AI remain however, including those of supporting countries to implement AI-based strategies,
communicating outputs of AI tools to policymakers, and the disparity in access to data across countries.
He noted that, in the PAHO Region (encompassing the Americas), around 32% of homes do not have
access to home internet, rising to 82% in Haiti. Access to smart mobile devices is also far from
ubiquitous, and this has implications for the representativeness of data gathered; for example 20 million
people in Argentina, 80 million in Brazil and 52 million Mexico do not own a smartphone.

Use of AI in response to pandemics is just as much about learning as identifying policy solutions. The
development of “infodemiology” requires global collaboration across professional and national
boundaries to bring together a diversity of expertise, perspectives and opinions. Policymakers should
employ AI not only for social listening, but also to enhance social dialogue through its use as a starting
point for two-way communication with the communities they represent to better serve their needs;
particularly during public health crises.