Using AI to measure the UN SDGs

Laura Kirchner
Consulting Project Manager
SDGs measurement challenge 7'
Citibeats for SDGs 7'
Vision for the future 1'
Current SDGs data challenges include:

- Lack of real time data
- Hard to measure subjective goals (Tier 3)
- Local adaptation of measures
- Inclusion of people's voices
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AI + continuous civic feedback allow:

- Social networks & mobile data
- Citizens opinions
- Adaptive AI & local voices
Citizen voices are rich in context, emotion and move us

Embelliendo el bajo puente de la autopista con pintura rosa. Al lado, familias con chicos en una villa improvisada. Va a estar bueno #BuenosAires ???

@bienestarmx si quieren erradicar pobreza, esta investigación les puede ayudar (claro si quieren basarse en ciencia y no en ocurrencias).

Aprox. 80% de comunidades rurales en #México en situación de #PobrezaEnergética. #EnergiasRenovables (como están hoy en México) poco ayudan twitter.com/CMEI_MX/status…

Terrible calidad del aire en esta mañana y @Bogota no hace nada al respecto.
Citizens’ voices are the best sensors of social problems
How can we include citizens voices as a measure of the UN SDGs?

Citizens voices

different local problems & speak in different languages.

Citibeats’ AI analytics models

to understand the topics of the SDGs, that adapt over time to any city, in any language.

Realtime ‘Citizens Watch’ on the UN SDGs

Cities, Governments and the UN can react and respond faster to reach SDGs
HOW IT WORKS

1. Collect
   Any text in any language, from any source

2. AI Analysis
   AI that learns and adapts to patterns in your city.

3. Respond
   Easy to use results, sent to the relevant person
Citibeats for the UN SDGs

Framework for turning citizen voices into an SDGs measure
Putting citizen voices at the center of the UN SDGs in 22 Latin countries
Citibeats SDGs Watch for Citizens

“We need to put people’s voices at the center of the Sustainable Development Goals, for them to really count.”

Rosa Castizo, Project Coordinator, Observatory of Sustainable Development and Climate Change for Iberoamerica, at the COP 24, the 2018 United Nations Climate Change Conference.

**Stakeholders:** Observatory for Sustainable Development and Climate Change for Iberoamerica - SEGIB

**Objectives:**

- Localization of the 2030 Agenda in Latin America, Spain and Portugal.
- Development of UN-specified metrics
- Provision of real-time view on evolving civic priorities
- Support governments to take evidence-based action

**Where:** 22 capital cities of 22 countries in Ibero America (Latin America, Portugal, Spain and Andorra).
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   Easy to use results, sent to the relevant person
1. Collect

**Volume:** More than 1 million tweets

**Time period:** 6 months: March - August 2019

**Location:** 22 cities in Latin America, Spain, Portugal and Andorra (Iberoamerica)
Citibeats SDGs Watch for Citizens: How it works

2. AI Analysis

Identification of different local problems

- ‘Rough sleepers’ in London and ‘favelas’ in Sao Paulo
- ‘Feminicide and abortion rights’ in Buenos Aires and ‘pay gap’ and ‘rape cases’ in Madrid
- ‘Air pollution and traffic congestion’ in Lima and ‘cycle lanes and sustainable mobility’ in Barcelona
- ‘Transition to green energies’ in Mexico DF and ‘recycling programmes’ in Barcelona
Citibeats SDGs Watch for Citizens: How it works

2. AI Analysis

Citibeats AI is designed to solve this with:

- Evolving semantic discovery
- Language agnostic
- Creating custom models for turning people’s opinions into data

Illustration: seed words and evolving semantic discovery

Adaptive model | Buenos Aires
Citibeats SDGs Watch for Citizens: How it works

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Illustration: seed words and evolving semantic discovery

Adaptive model | Madrid
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Citibeats SDGs Watch for Citizens: What is the top priority in Iberoamerica

**Conversation volume by SDG (1 Million Tweets)**

- **SDG 3 - Health**
  - México DF - lack of medicines in hospitals
  - Lima - negative health effects of air pollution

- **SDG 1 - Poverty**
  - Quito - Poverty in the streets of Quito
  - Bogotá - poverty in public transport (Transmilenio)

- **SDG 11 Sustainable cities and communities**
  - La Paz - improvements in public transportation systems
  - Buenos Aires - development of new green areas
Citibeats SDGs Watch for Citizens: What is the top priority by country?

Top priority by country

SDG 3 - Health
- México, Honduras, Nicaragua, Cuba, Rep. Dominicana, Colombia, Ecuador, Bolivia + Chile

SDG 1 - Poverty
- Brasil, Paraguay and Uruguay

SDG 11 Sustainable cities and communities
- Venezuela, Peru and Argentina
Citibeats SDGs Watch for Citizens: What are the climate change needs in each country?

Relative importance of SDG 13 - Climate Change by country

- **México DF**
  - Need for transition to clean energy in industries and cities

- **Santiago de Chile**
  - Setting the objective of becoming carbon-neutral by 2030

- **Bogotá**
  - Changing bus fleet for less contaminating vehicles

- **Barcelona and Madrid**
  - Cutting cities air pollution by implementing traffic restrictions
Citibeats SDGs Watch for Citizens: What does Bogotá say?

Bogotá results relative to all Iberoamerica

SDG 1
SDG 2
SDG 3
SDG 4
SDG 5
SDG 6
SDG 7
SDG 8
SDG 9
SDG 10
SDG 11
SDG 12
SDG 13
SDG 14
SDG 15
SDG 16
SDG 17

SDG 3 Health and wellbeing

SDG 9 Industry, infrastructure and innovation

SDG 11 Sustainable cities and communities
Vision for the future
Vision: people’s voices drive UN decisions

Include citizens’ voices in every city

Become a UN standard for every city to measure, benchmark and recommend local actions that impact the SDGs

UN standard for measuring Tier 3 indicators

Use citizens voices to overcome the difficulties of measuring subjective Tier 3 indicators

Measure SDG11 performance

Capture citizens engagement in different participatory events
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Our mission: powering a responsive society, by distilling concerns and making them measurable