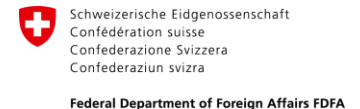


# HUMANITARIAN AI IN ACTION

**Michael Tjalve, PhD**

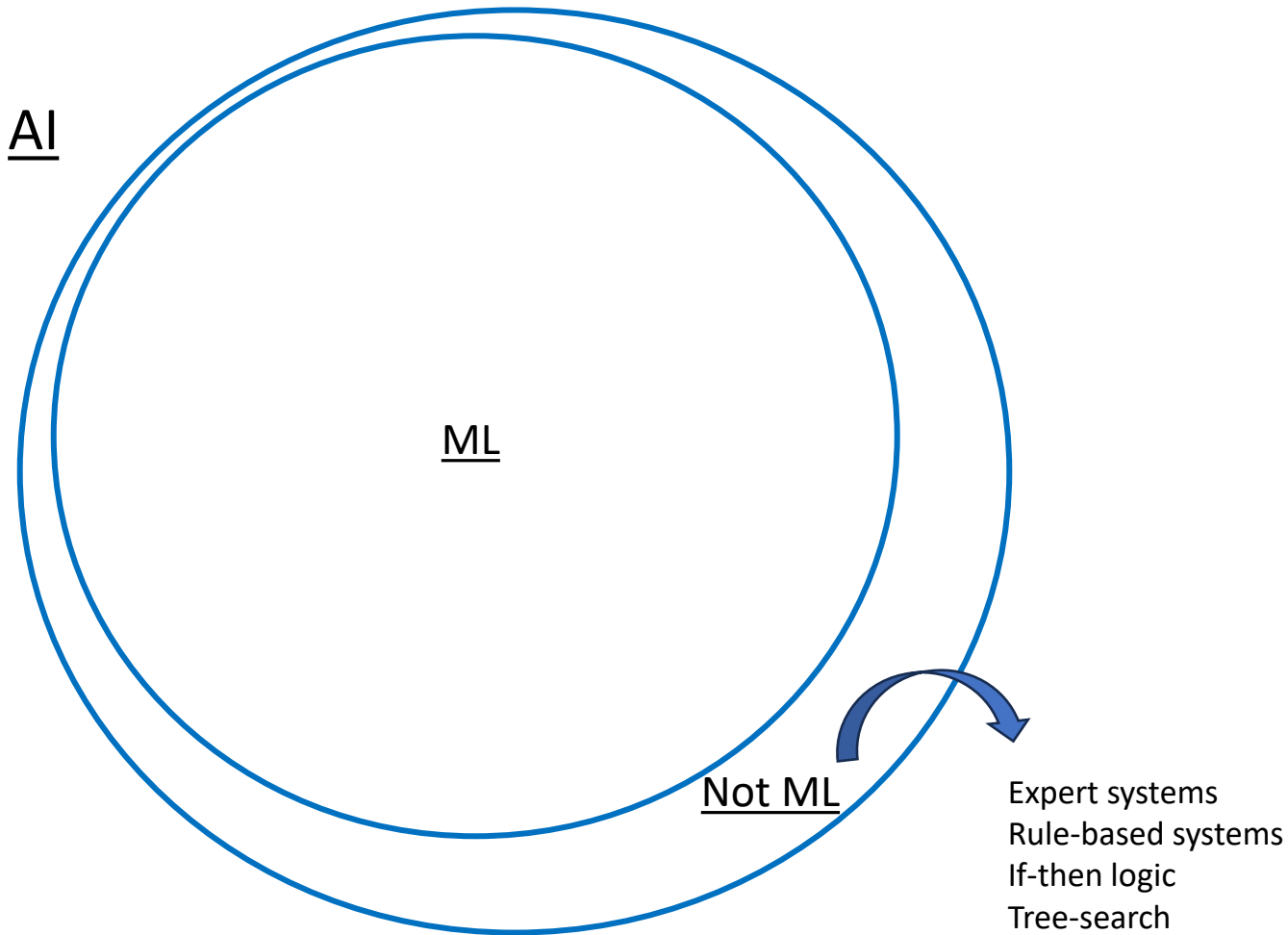
Founder, Humanitarian AI Advisory

Assistant Professor, University of Washington





Artificial Intelligence



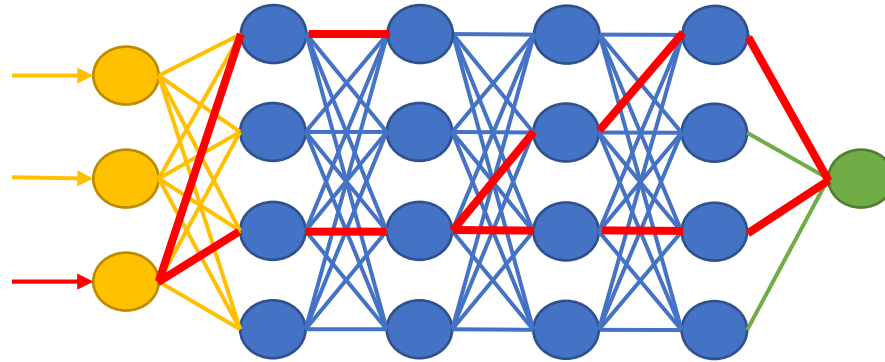
# Neural Networks

● Input layer   ● Hidden intermediate layer   ● Output layer

data

cloud computing

algorithms



AI

Out-of-the-box  
capabilities

Custom models



(adaptation, grounding)

# EXAMPLES OF HUMANITARIAN AI

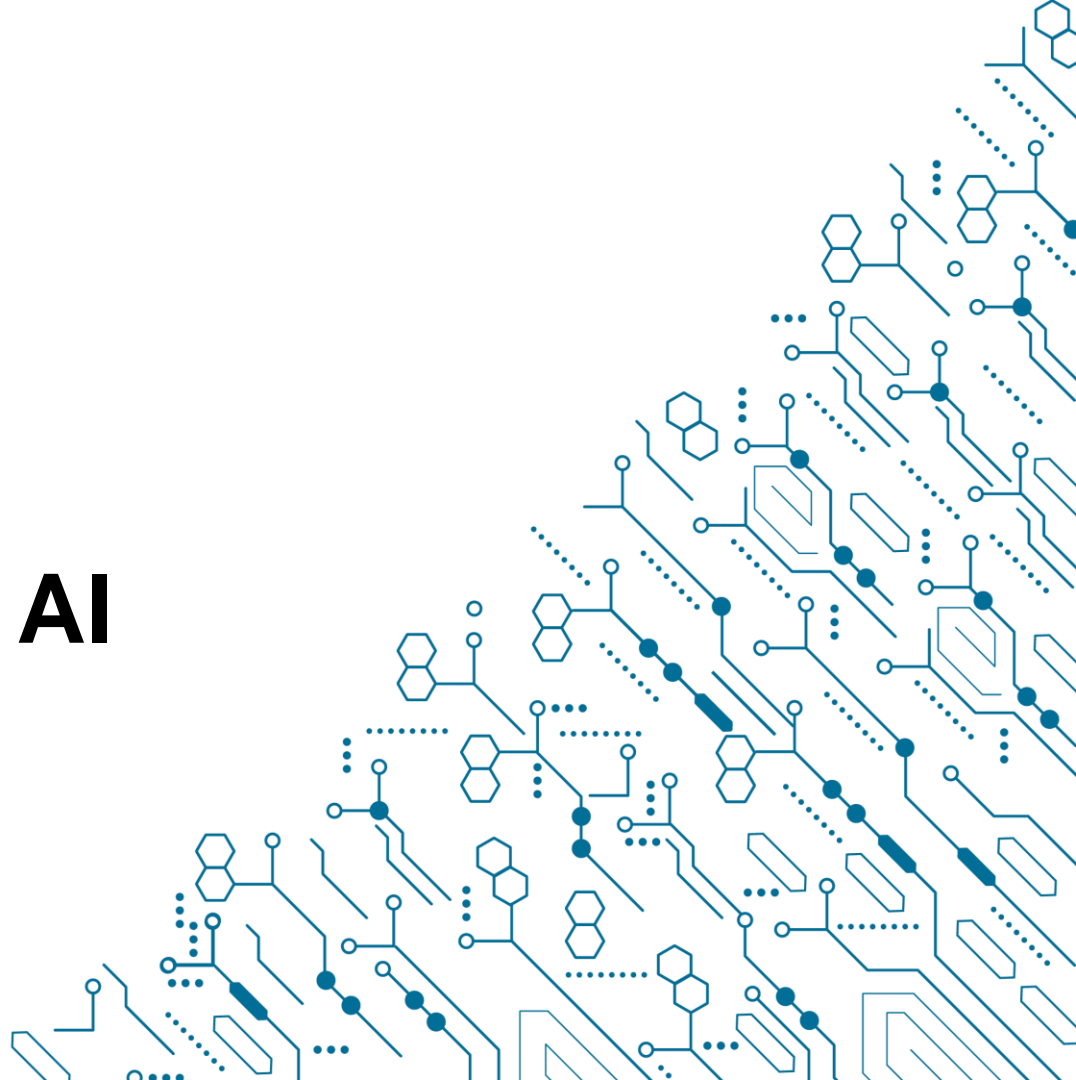




Image recognition

Image generation

Facial recognition

Landscape description

Computer vision



- + Predictive analytics
- Anomaly detection
- Autonomous systems
- Process optimization
- ...

Artificial Intelligence

Natural Language Processing

Speech

Text

Speech-to-text

Text-to-speech

Speaker verification

Machine Translation

Classification

Entity detection

Question Answering

Chatbot

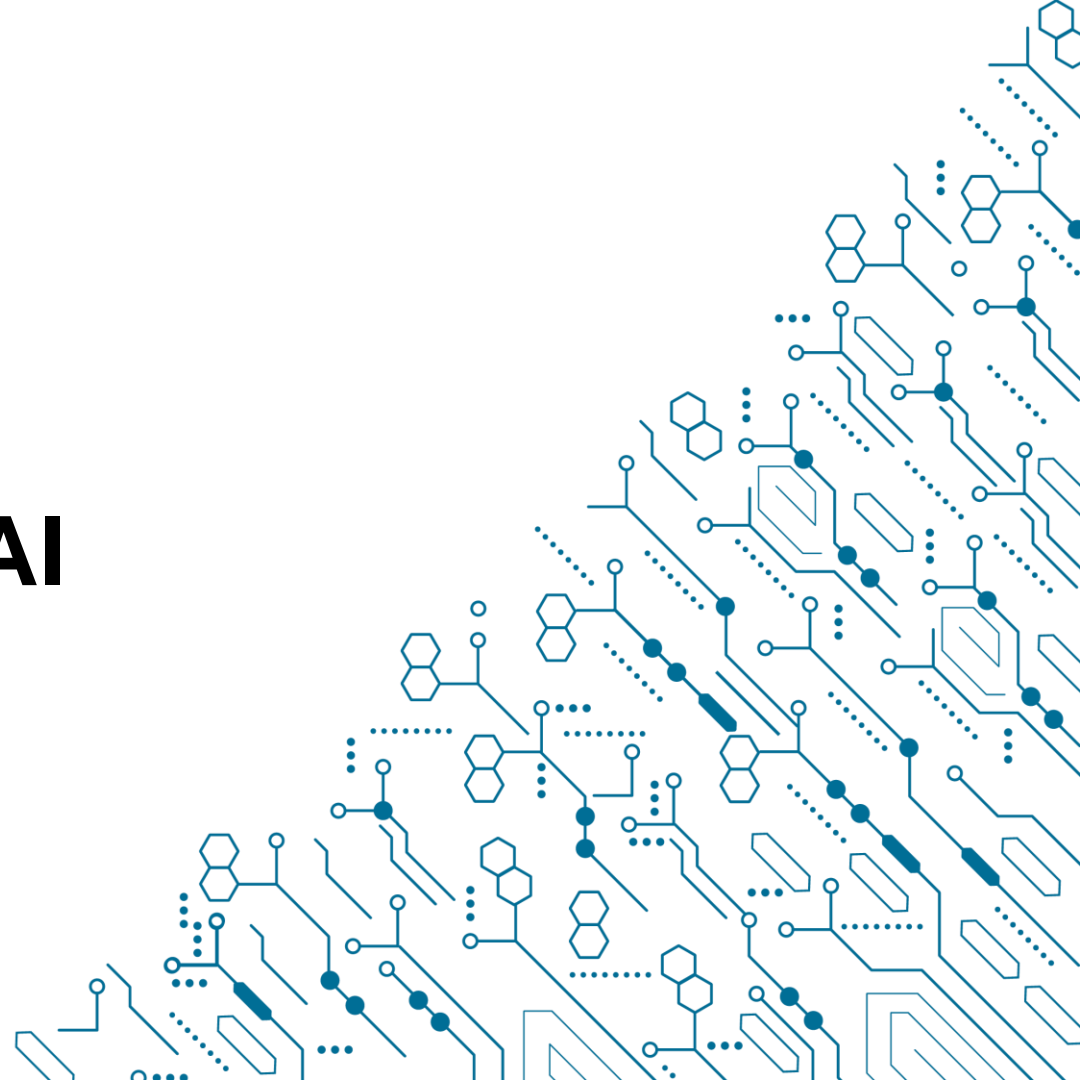
Text generation





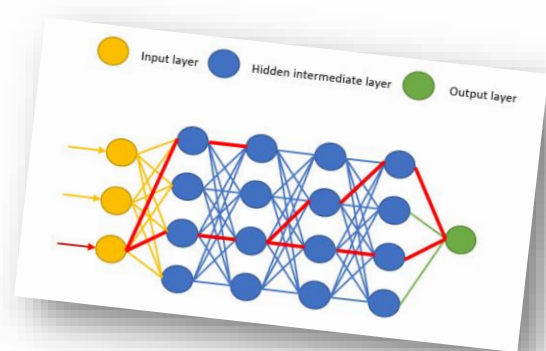


# RESPONSIBLE AI



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AI: making mistakes since the 1950s



~~run fast and break things~~

slow down and understand the impact

# SECTOR OPPORTUNITIES



# Conference Themes



Data analytics and interrogation of information management systems



Image recognition for classification and identification of explosive ordnance



Impact of AI on community engagement and content generation within EORE



Information management systems data integration and priority setting



Identification of contaminated areas for early impact analysis



Robotics and autonomous mechanical systems



Satellite imagery processing and analysis



Unmanned aerial vehicles (UAV)-deployed sensor data fusion and analysis



Generative AI

# Conference Themes

## Descriptive data analytics

Data analytics and interrogation of information management systems

Identification of contaminated areas for early impact analysis

Information management systems data integration and priority setting

## Autonomous systems + computer vision

Robotics and autonomous mechanical systems

Unmanned aerial vehicles (UAV)-deployed sensor data fusion and analysis

## Computer vision

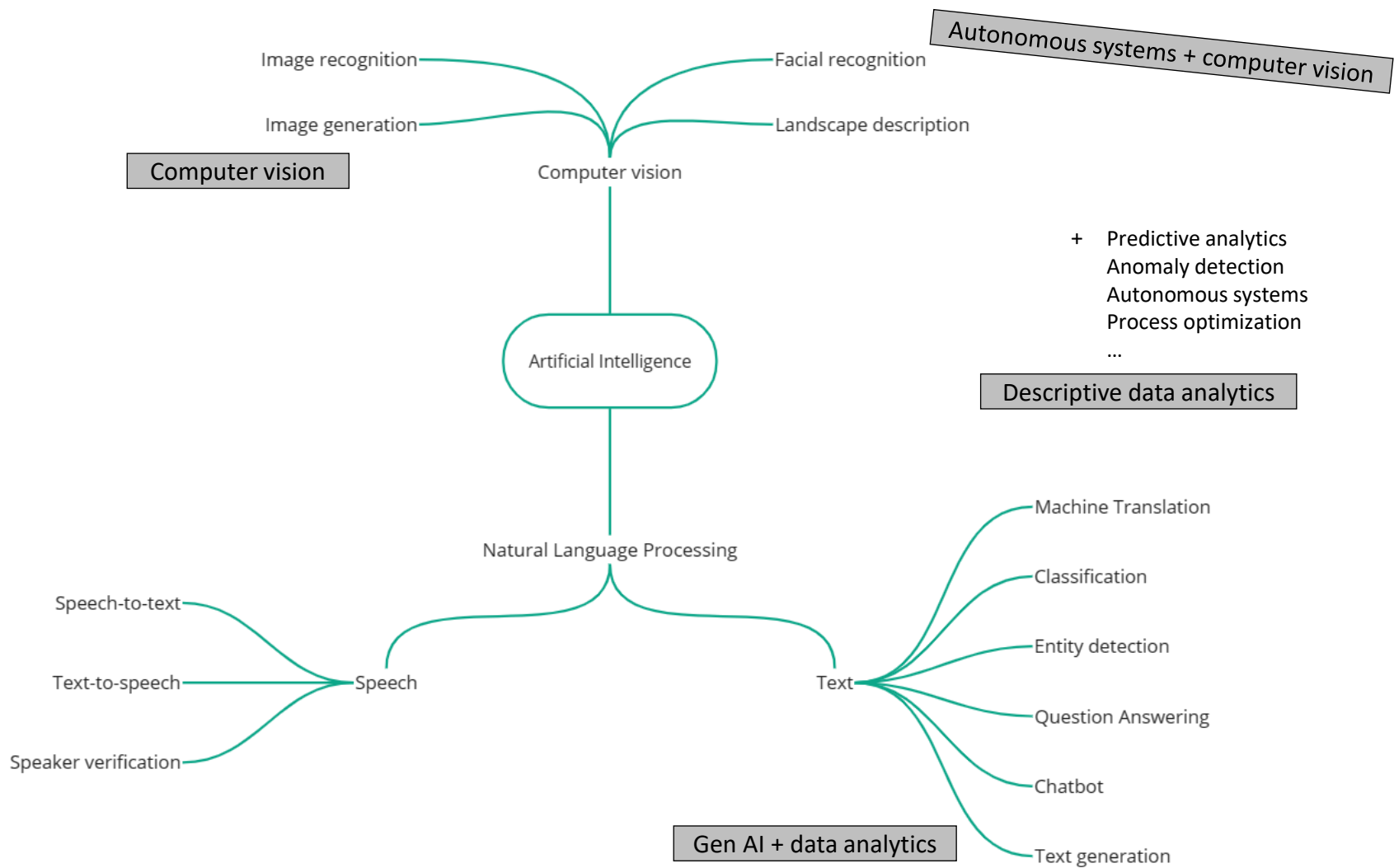
Image recognition for classification and identification of explosive ordnance

Satellite imagery processing and analysis

## Gen AI + data analytics

Impact of AI on community engagement and content generation within EORE

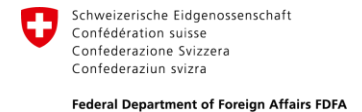




# Thank you!

Learn more at:

[humanitarianaiadvisory.com](https://humanitarianaiadvisory.com)












# Turkey Building Damage Assessment

**Figure 7:** A set of nine destroyed 5-story apartment buildings in downtown Islahiye. Maxar Technologies, Feb 7th.

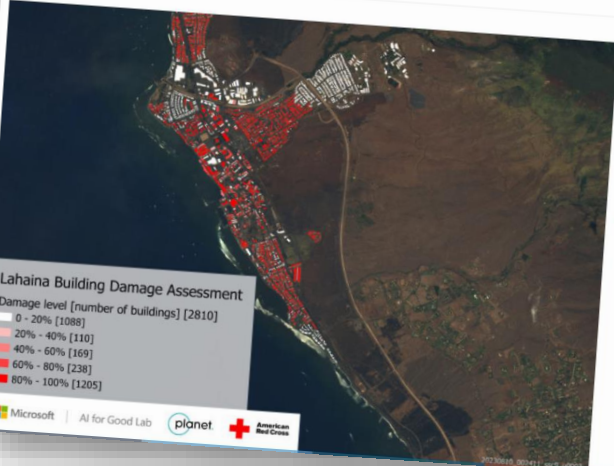








## Microsoft AI tool reveals swath of devastation from Maui wildfire

BY **LISA STIFFLER** on August 11, 2023 at 3:36 pm  
 Underwritten by  


This **special series** focuses on important community issues, innovative solutions to societal challenges, and people and non-profit groups making an impact through technology.



**Lahaina Building Damage Assessment**  
 Damage level [number of buildings] [2810]  
 0 - 20% [1088]  
 20% - 40% [110]  
 40% - 60% [169]  
 60% - 80% [238]  
 80% - 100% [1205]





### Pronunciation

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SPANISH



BUGLÉ




GREAT JOB!



### Oral language skills


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SPANISH



BUGLÉ







### Vocabulary


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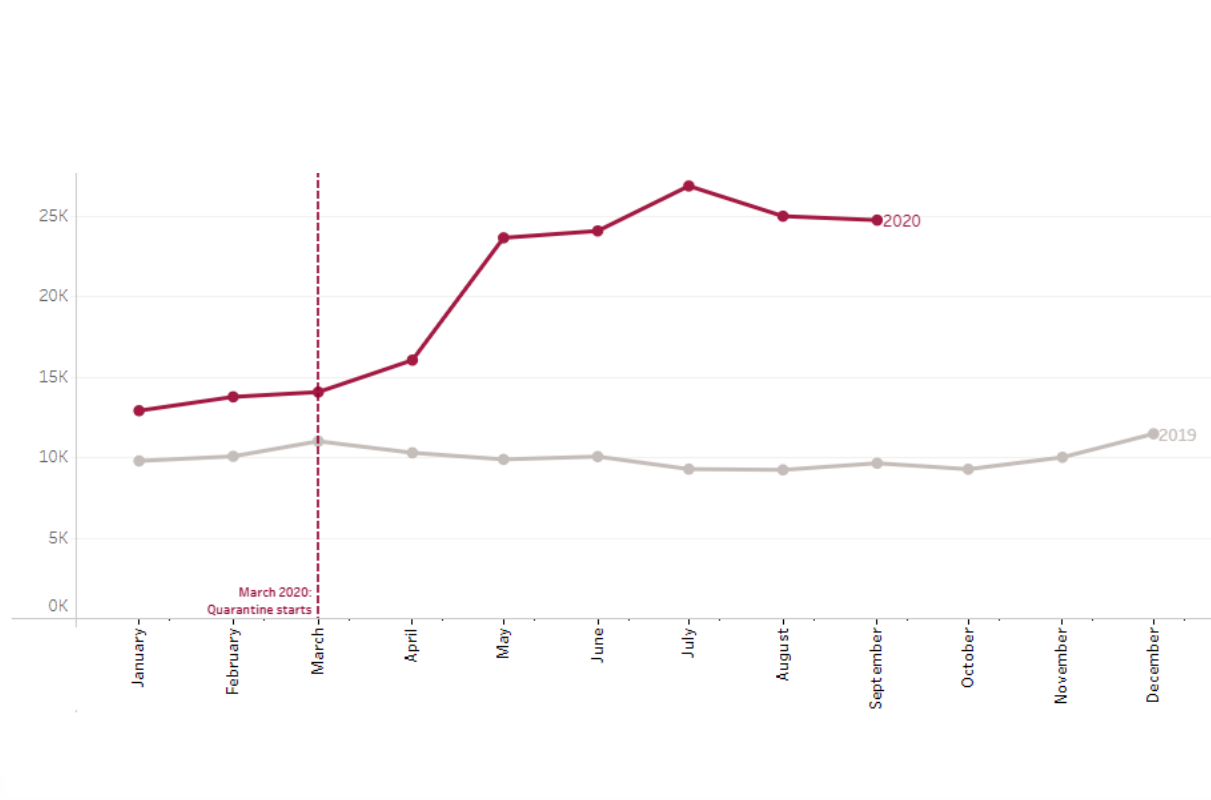
SPANISH

gracias

BUGLÉ

nobi





# Using conversational AI to support victims of gender-based violence



## Challenge:

The global pandemic has compounded existing concerns around domestic abuse leading to a significant increase in cases.

## Solution:

The chatbot provides a confidential and interactive interface for accessing support and guidance in a time of need.



seguroproject.org



pazparalasmujeres.org

