TECH AGAINST TRAFFICKING ACCELERATOR SHOWCASE

May 10, 2022

TECH AGAINST TRAFFICKING

AGENDA

8:00–8:10	Welcome and Introduction
8:10–8:25	Responsible Use of Tech to Combat Human Trafficking
8:25–8:40	Accelerator Outcomes: The Lantern Project
8:40–8:55	Accelerator Outcomes: Unseen UK
8:55–9:35	Technology Outputs
9:35–9:55	Panel and Q&A: Learnings for the Broader Field
9:55–10:00	Wrap Up

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SUPPORT RESOURCES

In the US, the **Disaster Distress Helpline** provides free 24/7 crisis counseling and support for anyone experiencing emotional distress related to natural or human-caused disasters.

- Call 1-800-985-5990

- Text "TalkWithUs" to 66746

In the UK, the **Samaritans helpline** offers 24-hour emotional support to anyone in distress.

- Call 116 123

Modern slavery is a complex, thriving crime with a foothold in every country.

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Digital technology can serve as
a powerful tool
to disrupt and reduce modern slavery.

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TECH AGAINST TRAFFICKING MEMBERS

Member Companies

amazon   BT   Microsoft   salesforce

Advisory Group

GSMA   tech UK   osce   UCL   wbcsd

Research Lead

RESPECT   THE GLOBAL INITIATIVE AGAINST TRANSNATIONAL ORGANIZED CRIME

Secretariat

BSR
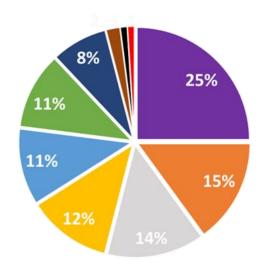
300+ tech tools addressing human trafficking

Pie chart:
- Victim/Trafficker Identification — 25%
- Supply Chain Management — 15%
- Corporate Risk Identification — 14%
- Worker Engagement & Empowerment — 11%
- Data Trends & Mapping — 11%
- Victim Case Management & Support — 8%
- Awareness-raising, Education & Collaboration — 12%
- Ethical Shopping — 2%
- Payment Security — 1%
- Privacy/Personal Identity — 1%

Legend:
- Victim/Trafficker Identification
- Supply Chain Management
- Corporate Risk Identification
- Worker Engagement & Empowerment
- Data Trends & Mapping
- Victim Case Management & Support
- Ethical Shopping
- Payment Security
- Privacy/Personal Identity
- Awareness-raising, Education & Collaboration

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The **TAT Accelerator Program** aims to advance and scale the work of technology tools being used to combat human trafficking.

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June 2021

Launch Pad

**July 2021
– March 2022**

*Providing Tailored
Resources*

May 2022

Showcase Event

**May 2022
and Beyond**

Progress Reports

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Responsible Use of Tech to Combat Human Trafficking

Responsible Use of Tech to Combat Trafficking

Amy Rahe
Managing Director, North America,
Freedom Fund

Sophie Otiende
Chief Executive Officer,
Global Fund to End Modern Slavery

Accelerator Outcomes: The Lantern Project

Accelerator Outcomes: The Lantern Project

Crystal Bennett

Executive Director

Tiffany Davis

Freedom Signal Program
Manager

Clint Herron

Senior Software Engineer

The Lantern Project

The Lantern Project aims to end sexual exploitation by changing culture through prevention, intervention and transformation.

Our Programs

Prevention

In an effort to prevent sex trafficking from taking place, we proactively educate young people on the risks and harms associated with commercial sexual exploitation and train them in behaviors that prevent harm.

Intervention

By building technology that allows local support organizations to connect with potential victims of trafficking, we extend their reach in a way that improves volunteers' and victims' safety. Our goal is to offer connection to anyone who has posted an ad online selling sex.
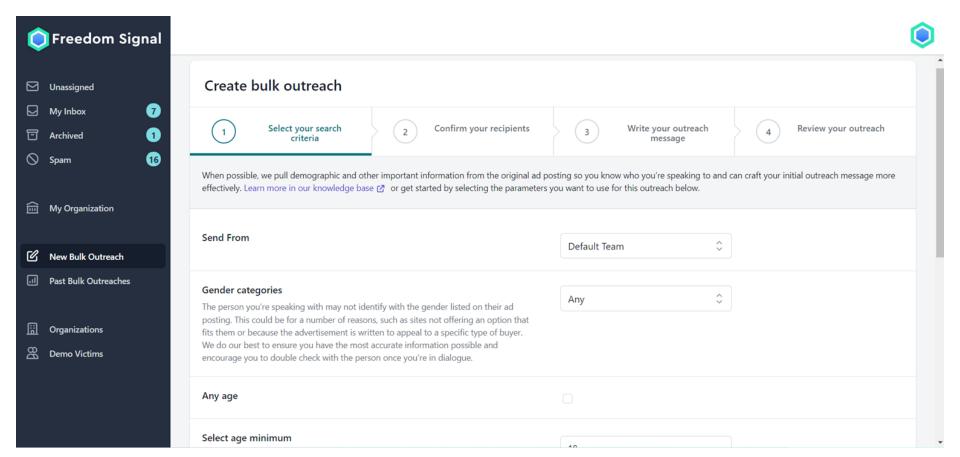
Transformation

After harms have been caused by buyers of sex, we attempt to help men understand their behavior and promote their own decisions to not buy sex through a non-judgmental program based on principles of social justice and personal transformation.

Freedom Signal

We provide a secure, scalable, and proven tool to reach people who are exploited online.

Freedom Signal
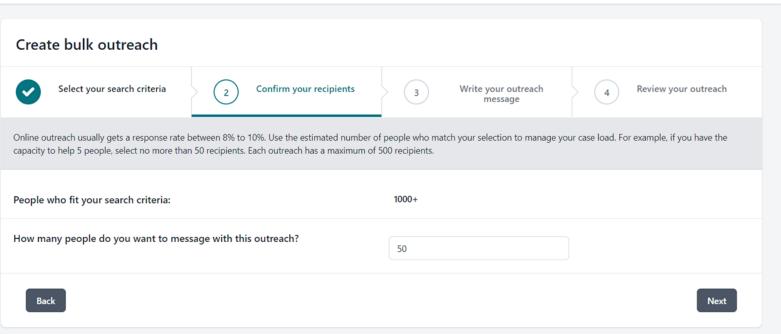
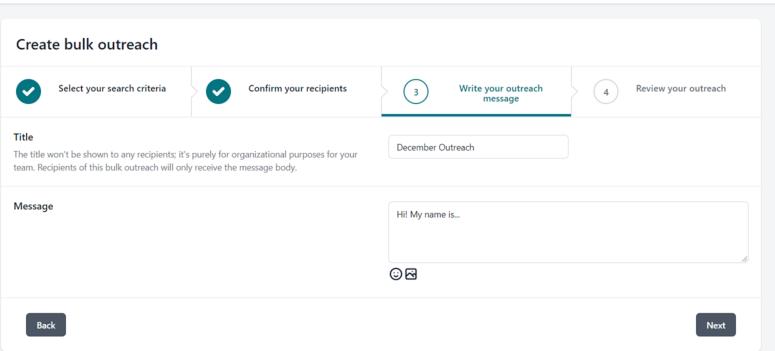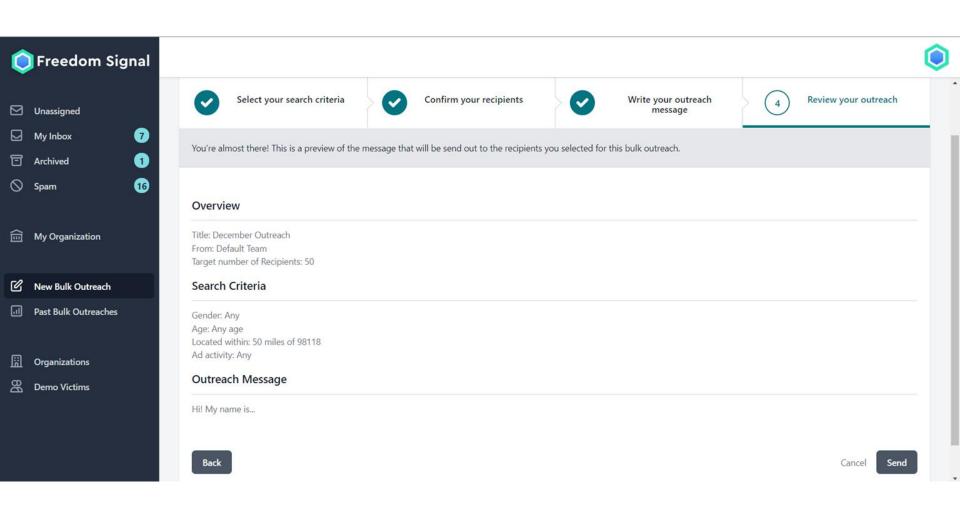- Unassigned
- My Inbox — 7
- Archived — 1
- Spam — 16

- My Organization

- New Bulk Outreach
- Past Bulk Outreaches

- Organizations
- Demo Victims

Create bulk outreach

| 1 | Select your search criteria | 2 | Confirm your recipients | 3 | Write your outreach message | 4 | Review your outreach |

When possible, we pull demographic and other important information from the original ad posting so you know who you're speaking to and can craft your initial outreach message more effectively. Learn more in our knowledge base ⧉ or get started by selecting the parameters you want to use for this outreach below.

Send From

Default Team ⇅

Gender categories

The person you're speaking with may not identify with the gender listed on their ad posting. This could be for a number of reasons, such as sites not offering an option that fits them or because the advertisement is written to appeal to a specific type of buyer. We do our best to ensure you have the most accurate information possible and encourage you to double check with the person once you're in dialogue.

Any ⇅

Any age

☐

Select age minimum

Freedom Signal

- Unassigned
- My Inbox **7**
- Archived **1**
- Spam **16**
- My Organization
- **New Bulk Outreach**
- Past Bulk Outreaches
- Organizations
- Demo Victims

Create bulk outreach

✓ Select your search criteria   ② **Confirm your recipients**   ③ Write your outreach message   ④ Review your outreach

Online outreach usually gets a response rate between 8% to 10%. Use the estimated number of people who match your selection to manage your case load. For example, if you have the capacity to help 5 people, select no more than 50 recipients. Each outreach has a maximum of 500 recipients.

People who fit your search criteria: 1000+

How many people do you want to message with this outreach?

50

Back   Next

Freedom Signal

- Unassigned
- My Inbox **7**
- Archived **1**
- Spam **16**

- My Organization

- New Bulk Outreach
- Past Bulk Outreaches

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Create bulk outreach

✓ Select your search criteria ✓ Confirm your recipients ③ Write your outreach message ④ Review your outreach

Title

The title won't be shown to any recipients; it's purely for organizational purposes for your team. Recipients of this bulk outreach will only receive the message body.

December Outreach

Message

Hi! My name is...

Back   Next

Freedom Signal

✓ Select your search criteria ▸ ✓ Confirm your recipients ▸ ✓ Write your outreach message ▸ ④ **Review your outreach**

You're almost there! This is a preview of the message that will be send out to the recipients you selected for this bulk outreach.

Overview

Title: December Outreach
From: Default Team
Target number of Recipients: 50

Search Criteria

Gender: Any
Age: Any age
Located within: 50 miles of 98118
Ad activity: Any

Outreach Message

Hi! My name is...

Back   Cancel   **Send**

Trafficked at 15 by a boyfriend

At 19 Rose is no longer with her boyfriend (pimp), but the only thing she knows is sex work, so she continues to work on her own.

For her safety, Rose begins to post ads online instead of walking the track.

Rose, with Sarah's support, completes an internship, obtains a job, and she is moving into her apartment next month. She is no longer engaging in sex work.

Sarah builds trust with Rose and shares resources.

Rose receives a text from Sarah and responds.

A local nonprofit that works with survivors of sex trafficking and the sex trade uses Freedom Signal for online outreach.

Freedom Signal crawls Skipthegames and pulls Rose's name and contact information.

Community Advocate, Sarah, sends a text outreach message.

Impact of Freedom Signal

- 19 websites crawled weekly
- 14 million ads scraped to date
- 1.9 million people identified being potentially sexually exploited online
- 162,000+ texts sent through Freedom Signal
- Improved outreach
  - 10x more efficient
  - 244% greater engagement

Tech Against Trafficking - Problem Areas

"How can we increase our impact?"

- Improving the efficiency and scalability of Freedom Signal
- Using data science to improve Freedom Signal's ability to find people most likely to be potential victims.
- Using our data to help partners target resources more effectively.
- Increasing fundraising and business revenue.

Accelerator Outcomes: Unseen UK

Andrew Wallis
CEO

Rachel Harper
Head of Helpline Services

Justine Currell
Executive Director

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UK-wide Modern Slavery Helpline

Equip

Influence

Support

Reintegrate

What we do

unseen
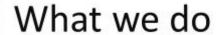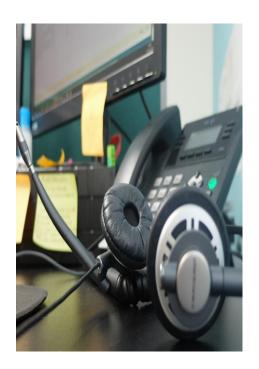
Modern Slavery & Exploitation Helpline

- UK-wide and international calls
- Confidential and independent
- 24/7, 365 days a year
- Fully trained specialist staff
- Victim-centred call handling and case response
- Translation services
- Calls from potential victims, businesses, the public and statutory agencies
- Referrals to the police, NGOs, and local authorities
- Central point of contact for awareness campaigns
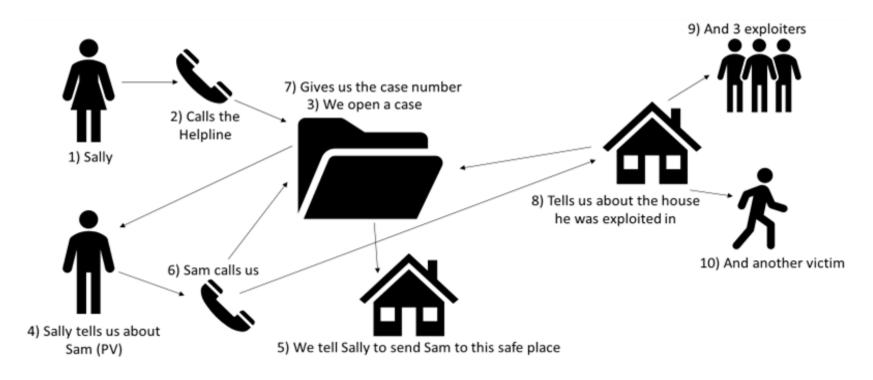
Data Model

- Records for situations, actions, individuals, roles, organisations, contacts, notes

- Data gathered on:
  — Type of exploitation
  — Sector
  — Geographical location
  — Type of location
  — Control methods
  — Recruitment methods
  — Relationships
  — Potential victims, potential exploiters, callers/contacts

- Conservative reporting, individual assessments

- Unique data set

45,000 to 50,000 new records per year

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Complex Case Data Structure

1) Sally
2) Calls the Helpline
3) We open a case
4) Sally tells us about Sam (PV)
5) We tell Sally to send Sam to this safe place
6) Sam calls us
7) Gives us the case number
8) Tells us about the house he was exploited in
9) And 3 exploiters
10) And another victim

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Problem: How to harness the power of data?

- Needs for Data Analysis

  — Increasing quantity of data records; increasing complexity of data records

  — The most interesting questions are the hardest to answer → Can't speed read and fuzzy search for every unique question.

  — We don't know what we don't know → Can't run multiple reports to look for the interesting unknown unknowns.

- Inability to share data sets

- Difficulty identifying cases related to certain suppliers

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TAT Accelerator Journey

- Fundraising Strategizing - Sustainability

- Established AWS platform / "lab"

- Data Analysis to identify the unknown unknowns

- Data Analysis of case notes

- Data Anonymization – flexible privacy settings for different audiences

- Business/Supplier scoring matrix

Technology Outputs

Technology Outputs

Phil Bennett
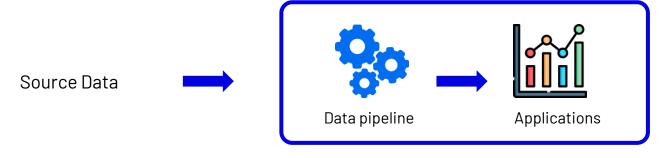
Technology Consultant
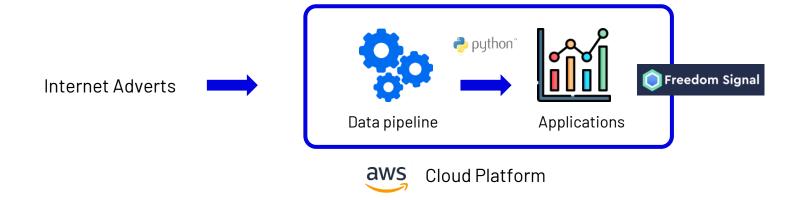
Darren Edge

Director, Societal
Resilience,
Microsoft Research

General Architecture

Source Data → Data pipeline → Applications
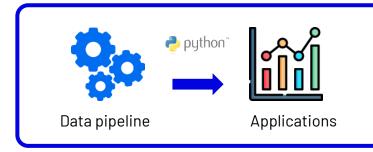
Cloud Platform

The Lantern Project

Internet Adverts →

Data pipeline → Applications

Freedom Signal

aws Cloud Platform

Unseen

salesforce

Helpline Case
Source Data

AWS AppFlow

Data pipeline

python

Applications

unseen
business

aws Cloud Platform

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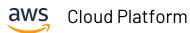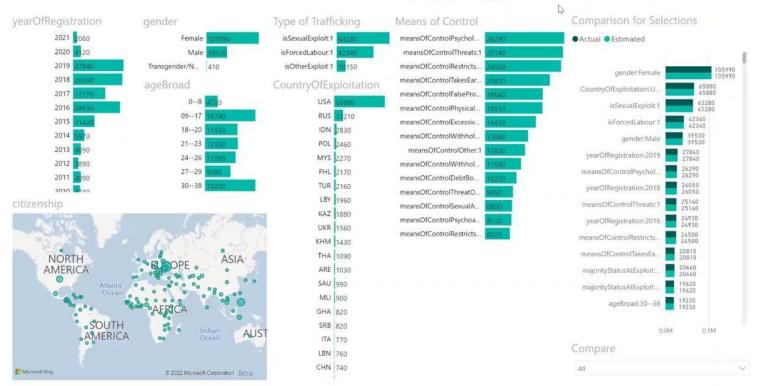
Synthetic Data Showcase: CTDC Global Synthetic Dataset
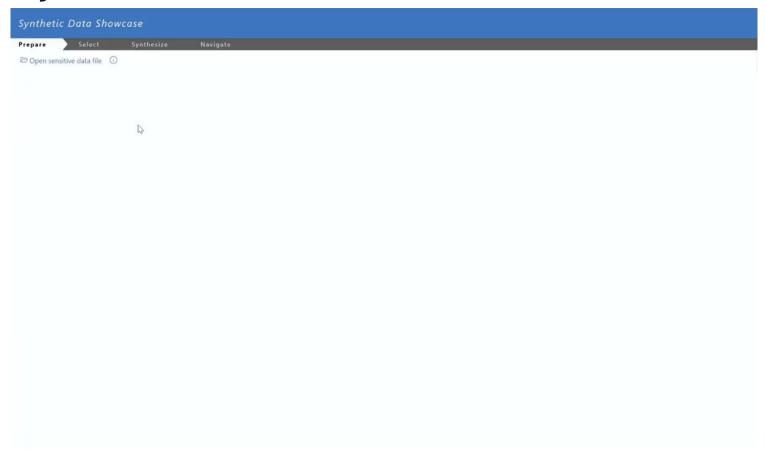
Synthetic Data Showcase (CTDC Dataset, Unseen Collaboration)

Collaborating on Sensitive Data Analysis

1. **External** analysis of **non-sensitive** data

2. **External** analysis of **de-linked** data

3. **Internal** analysis of **de-linked** data

4. **Internal** analysis of **sensitive** data

Incremental development of value & trust

Generate new requirements, commit to co-development

Validate concept, commit to data sharing

Validate implementation, commit to code transfer

Validate environment, commit to sensitive data use

Finding Patterns in Time-Varying Data

ID	Time	Att. 1	Att. 2
1	T1	A	X
2	T1	B	X
3	T2	B	X
4	T2	B	Y
5	T2	A	Y

Case	Time	Type	Nat.	City
1	T1	Sex	ROU	LON
2	T1	Labour	ROU	LON
3	T2	Labour	ROU	LON
4	T2	Labour	VNM	LON
5	T2	Sex	VNM	LON

Ad	Time	Phone	Email	City
1	T1	12345	a@b.c	SEA
2	T1	98765	a@b.c	SEA
3	T2	98765	a@b.c	SEA
4	T2	98765	d@e.c	SEA
5	T2	12345	d@e.c	SEA
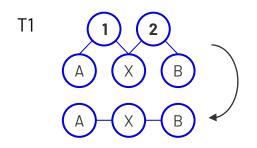
Tables of Records
observed over time
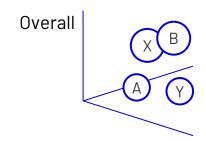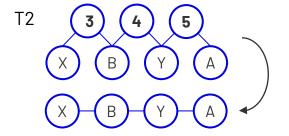
Helpline Cases
from Unseen calls
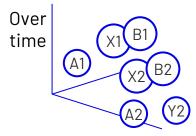
Online Ads
from TLP web scraping

Finding Patterns in Time-Varying Data

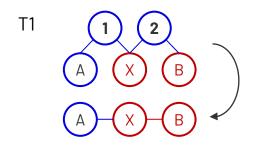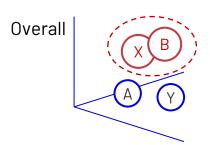| ID	Time	Att. 1	Att. 2
1	T1	A	X
2	T1	B	X
3	T2	B	X
4	T2	B	Y
5	T2	A	Y

Tables of Records
observed over time

Graphs of Relationships
from dynamic graph modelling
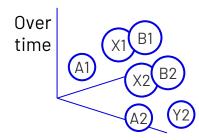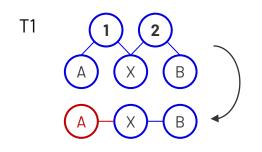
Spaces of Behaviours
from dynamic graph embedding

Finding Patterns in Time-Varying Data

ID	Time	Att. 1	Att. 2
1	T1	A	X
2	T1	B	X
3	T2	B	X
4	T2	B	Y
5	T2	A	Y

T1

T2

Overall

Similar behaviour overall

Over time
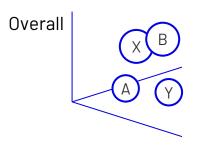
Tables of Records → **Graphs of Relationships** → **Spaces of Behaviours**
observed over time   from dynamic graph modelling   from dynamic graph embedding

Finding Patterns in Time-Varying Data

ID	Time	Att. 1	Att. 2
1	T1	A	X
2	T1	B	X
3	T2	B	X
4	T2	B	Y
5	T2	A	Y

T1

T2

Overall

Over time

A1

Different behaviour over time

Tables of Records
observed over time

⟶

Graphs of Relationships
from dynamic graph modelling

⟶

Spaces of Behaviours
from dynamic graph embedding

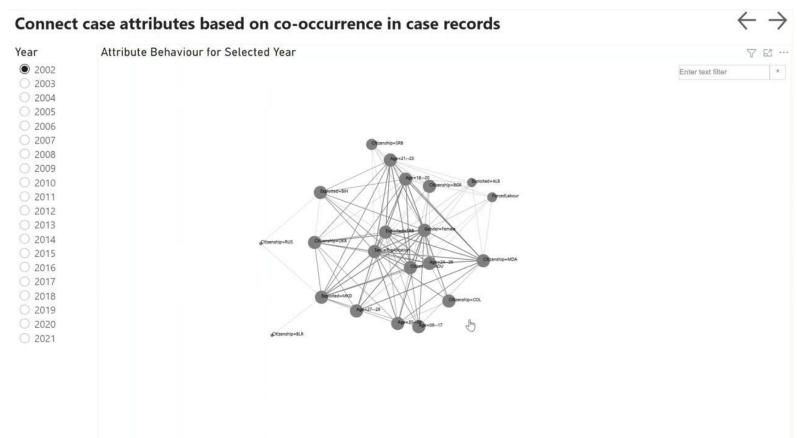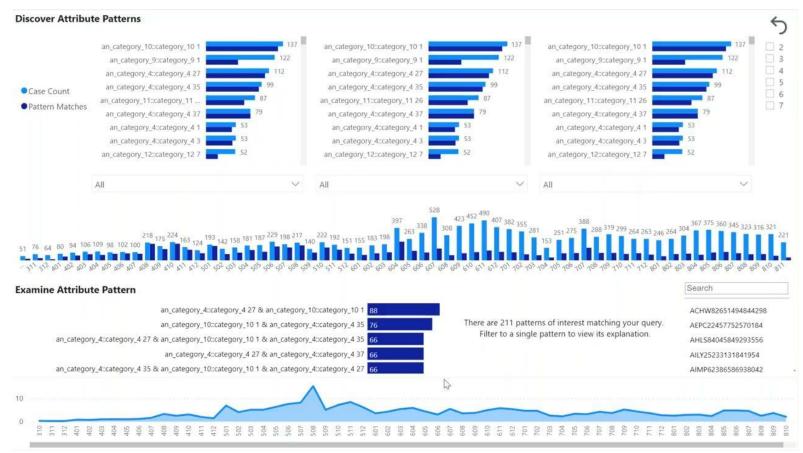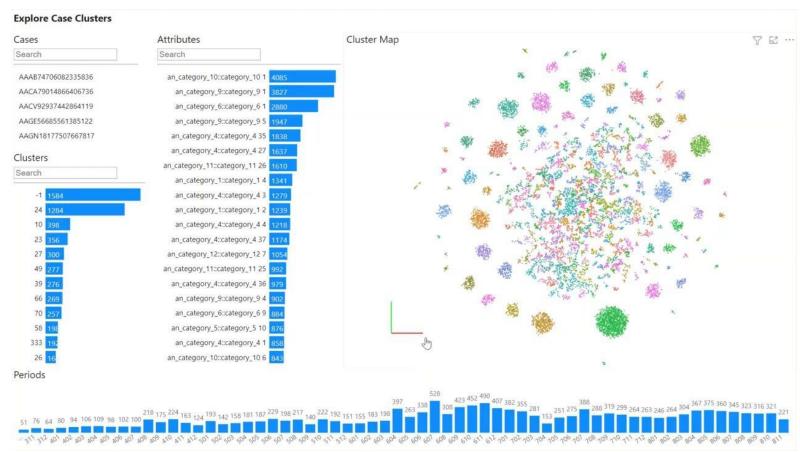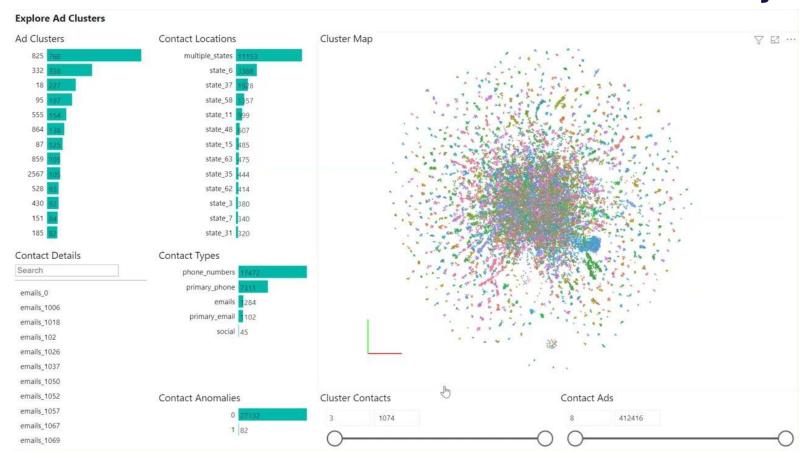# Pattern Detection Over Time (Non-Sensitive Data, CTDC)

Pattern Detection Over Time (De-Linked Data, Unseen)

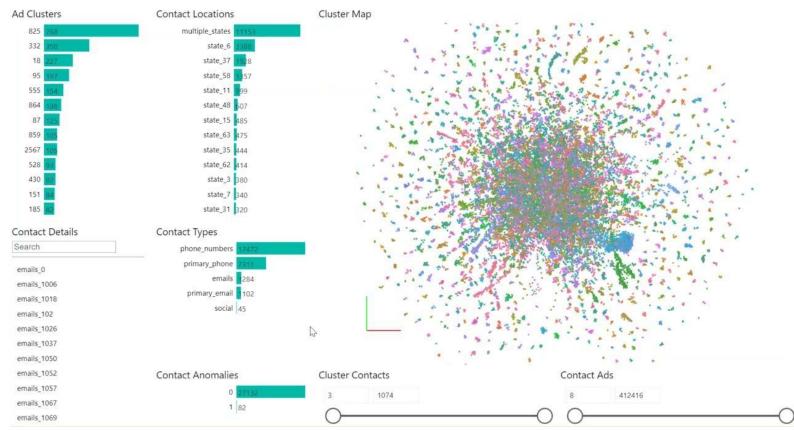# Cluster Detection Overall (De-Linked Data, Unseen)

Cluster Detection Overall (De-Linked Data, Lantern Project)

Explore Ad Clusters

Ad Clusters

825	768
332	358
18	227
95	197
555	154
864	138
87	125
859	105
2567	105
528	93
430	92
151	84
185	82

Contact Locations

multiple_states	11153
state_6	3388
state_37	1928
state_58	1357
state_11	999
state_48	607
state_15	485
state_63	475
state_35	444
state_62	414
state_3	380
state_7	340
state_31	320

Cluster Map

Contact Details

Search

emails_0
emails_1006
emails_1018
emails_102
emails_1026
emails_1037
emails_1050
emails_1052
emails_1057
emails_1067
emails_1069

Contact Types

phone_numbers	17472
primary_phone	7311
emails	1284
primary_email	102
social	45

Contact Anomalies

0	27132
1	82

Cluster Contacts

3	1074

Contact Ads

8	412416

Anomaly Detection Over Time (De-Linked Data, Lantern Project)

Panel and Q&A

Panel and Q&A

Christina Bain
Visiting Researcher,
Tufts University

Justine Currell
Executive Director,
Unseen UK

Jed Sundwall
Global Sustainability Lead,
Amazon Web Services

Phil Bennett
Technology Consultant

Event Wrap-up

Applications for Third TAT Accelerator now open!

- Go to www.surveymonkey.com/r/LG3SMZW to apply

- Share with your networks!

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THANK YOU

techagainsttrafficking.org/contact-us