

# R&D at Aware

New CTO Introduction! **(5 min)**

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Platform and Market Challenge Refresh **(10 min)**

2022 Major Release Recap **(10 min)**

2023 Roadmap Themes **(30 min)**

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Q&A **(30 min)**





# Debasish Biswas

CTO, AWARE



# CUSTOMERS ON THE CALL

STARBUCKS®

Aware





# Platform and Market Refresh



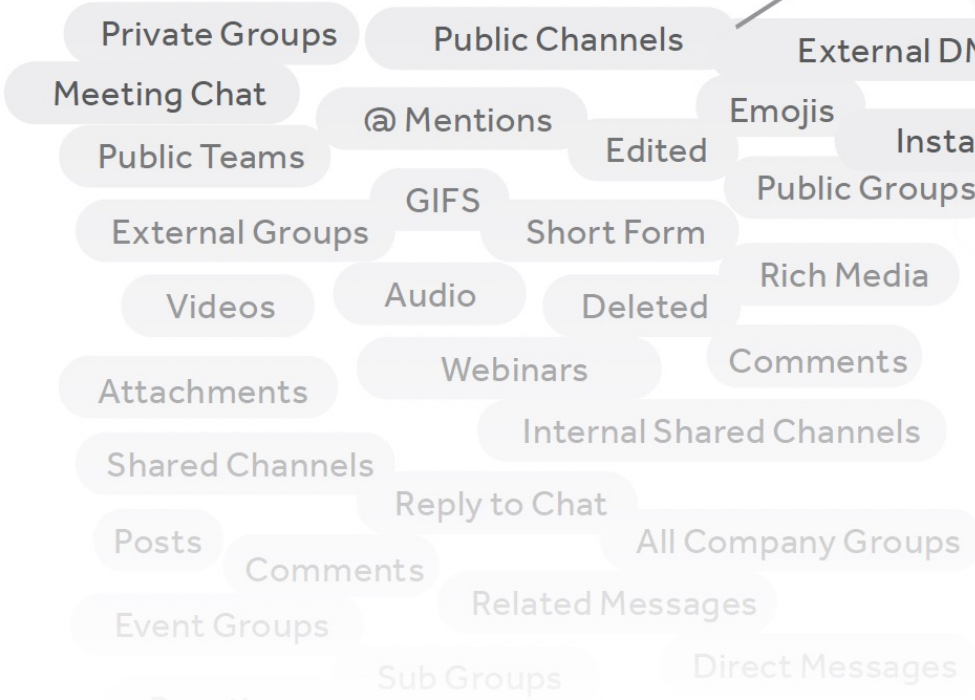
# Digital conversations exist in all corners of every organization

FRAGMENTED AND UNSTRUCTURED



## UNSTRUCTURED CHAOS ...

Legacy platforms were initially designed for siloed data types such as emails and documents and not architected for the many **nuances of collaboration ...**



## MESSAGE CONTENT DIFFERENCE

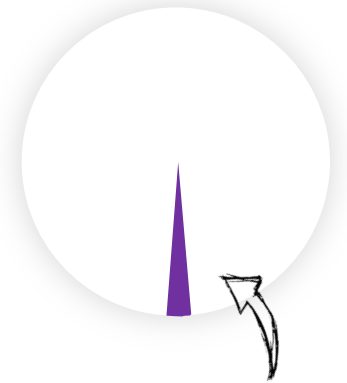
**Unique Behavior**  
(Authentic, automatic, impulsive, consumer like)

**Short Form**  
(avg 5 words, not complete)

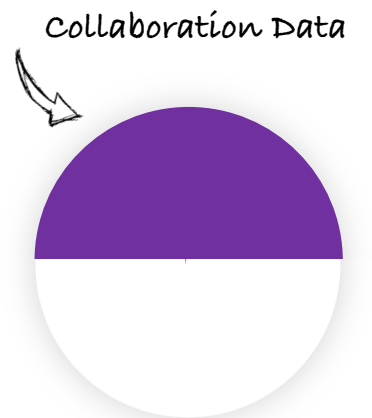
**End User Control**  
(modifications, deletions, etc.)

## NOW A LEADING DATA SET

COLLABORATION DATA **PRE-PANDEMIC**



COLLABORATION DATA **POST-PANDEMIC**







GR Gregory Ruf 04/09/2020 08:53 PM

TF Tyson Francis 04/09/2020 08:53 PM ✓ EDITED VIEW EDIT HISTORY

Sensitive Data Shared ⚡

confidential.txt DOWNLOAD

CM Carly Mariano 04/09/2020 07:47 PM

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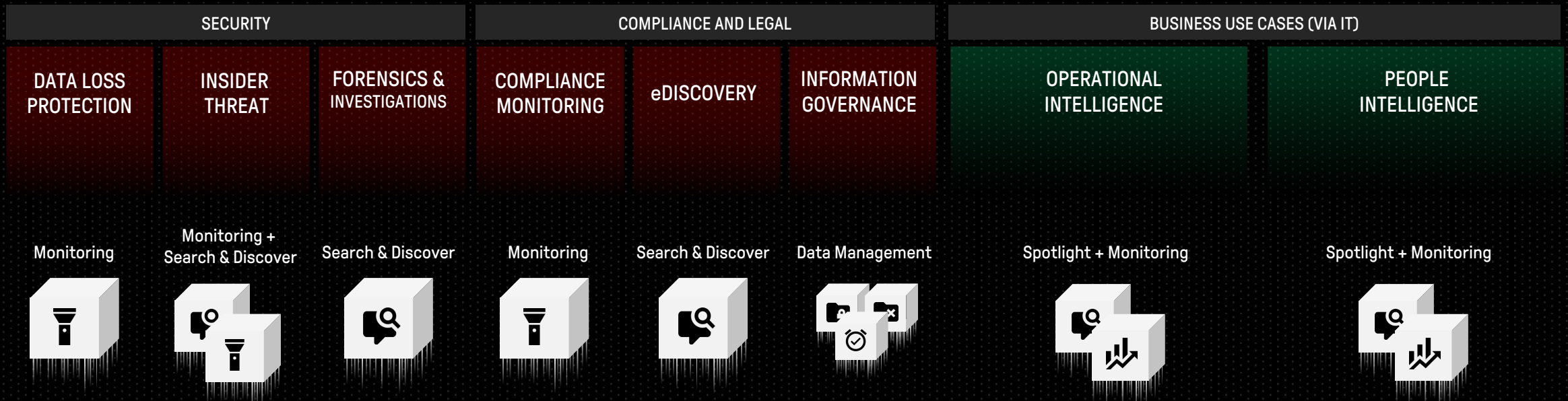
## AWARE'S PLATFORM MISSION

Address the risks and opportunities with managing the endless stream of human collaboration data, making it **accessible, usable and valuable to everyone.**

## Aware THE COLLABORATION INTELLIGENCE PLATFORM

### RISK INTELLIGENCE

### BUSINESS INTELLIGENCE



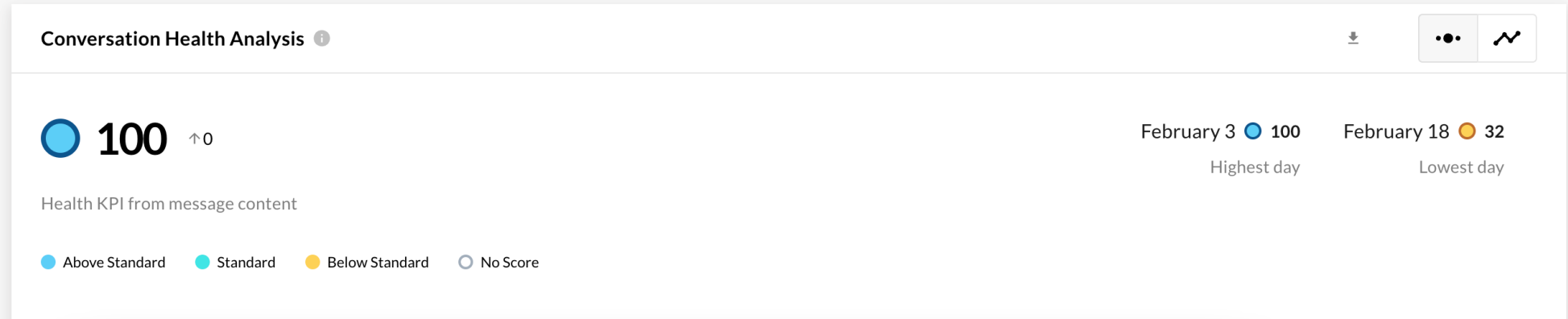
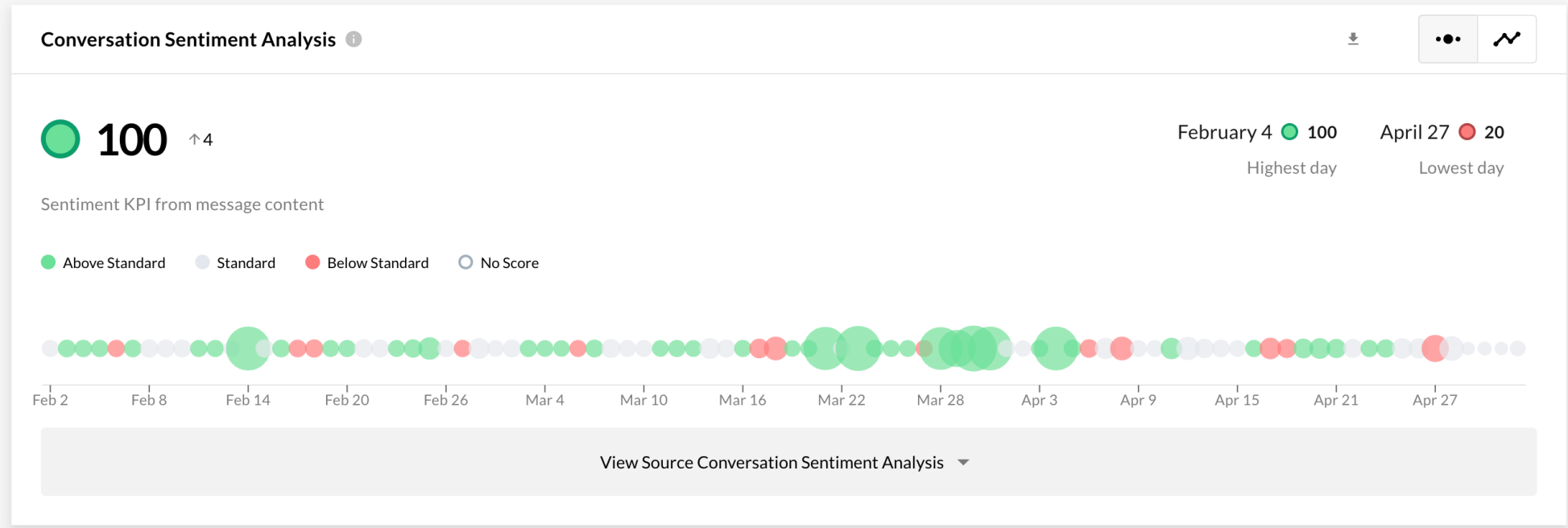


- Spotlight
- Dashboard
- Platforms
- Groups
- Topics
- Monitoring
- Search & Discover
- Data Hold
- Retention
- User Data Removal
- Showcase
- System Settings

## Engagement Insights

Last 7 Days | Last 28 Days | Last 90 Days

Tuesday, February 1 – Monday, May 2 · Compared to Tuesday, November 2 – Monday, January 31



# THE AWARE PLATFORM



## The Only Purpose-Built Platform for Today and Future Applications

### User Applications

Existing application built on the Aware platform solving for Governance, Risk, Compliance and Insight use-cases.

### Role Based Access Controls

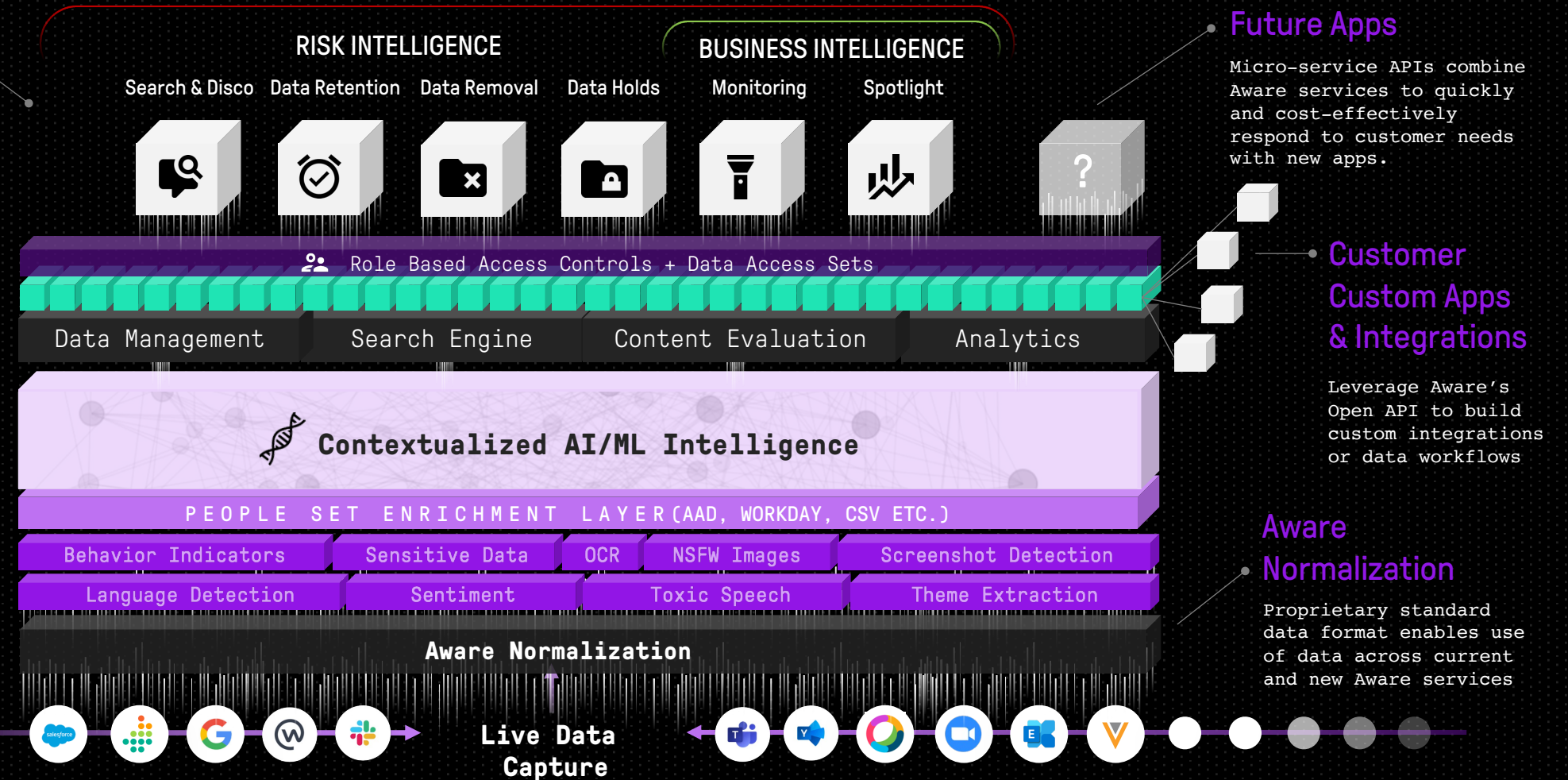
RBAC give enterprises control over exposure to specific types of data and use-cases that leverage the Aware Platform

### Intelligence Fabric

ML Powered Data Fabric is the fully structured and contextualized brain that powers the Aware Services and Apps.

### Integration Agnostic

API-based subsystems enable quick setup for customers and standards for easy future data collection.



### Future Apps

Micro-service APIs combine Aware services to quickly and cost-effectively respond to customer needs with new apps.

### Customer Custom Apps & Integrations

Leverage Aware's Open API to build custom integrations or data workflows

### Aware Normalization

Proprietary standard data format enables use of data across current and new Aware services

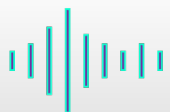
# Aware

## IT'S ALL ABOUT THE EMPLOYEE. STARTING WITH DATA PRIVACY.

*Intelligence starts with being good stewards of the data*



Aware started as a **privacy compliance platform** to address GDPR/CCPA and the data rights of employees ...



... knowing that it was foundational to **providing Business and People Intelligence in a compliant and ethical way.**

### PLATFORM CONTROLS



Each App has **unique data sensitivity controls** baked in based on the use-case and persona using the specific app. Spotlight, for example, never exposes messages from DMs or Private Groups.

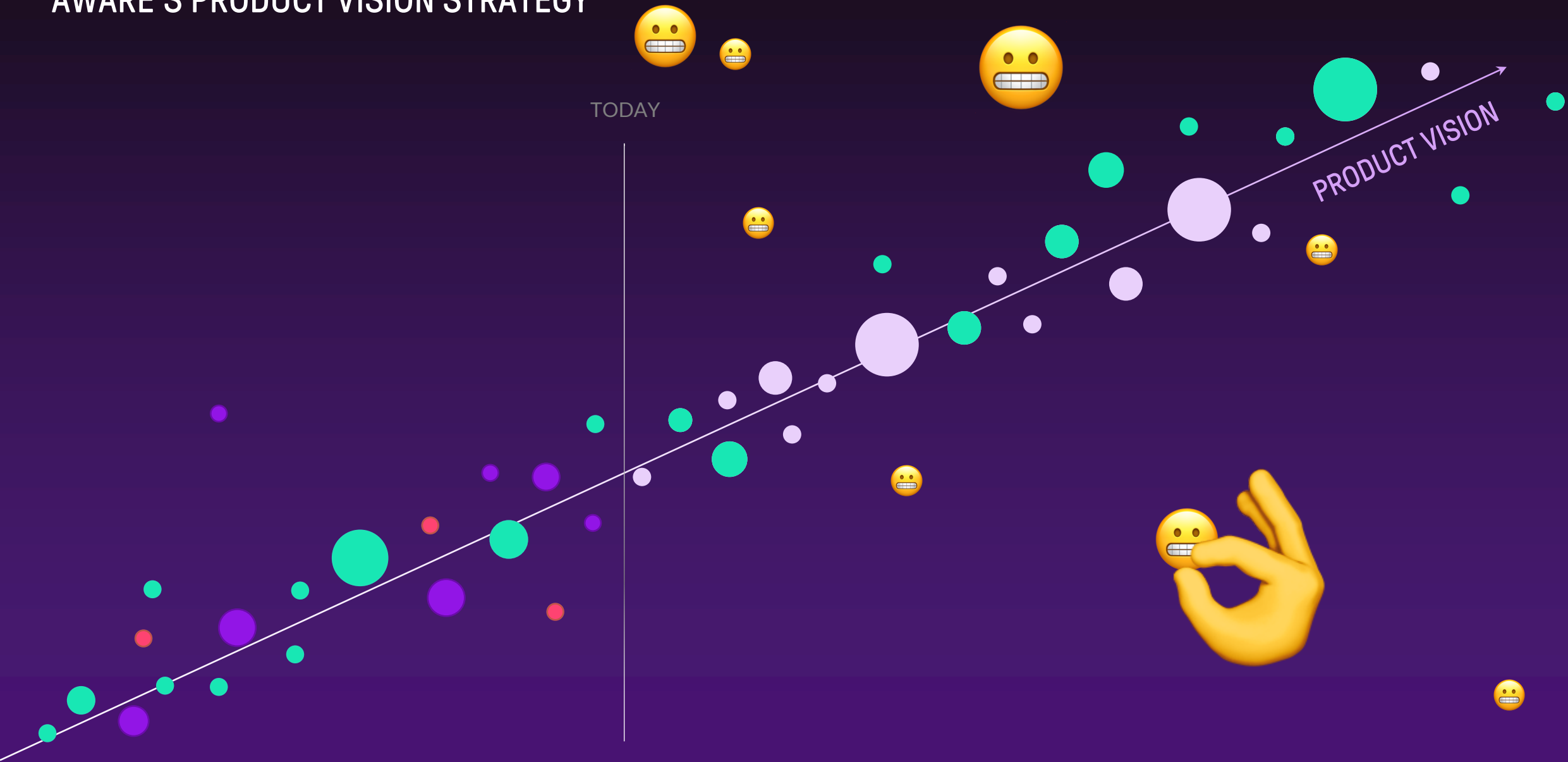


**SSO, Role-Based Access Controls + Data Access Sets** ensure the appropriate user has the proper layer of access to the data



**Audit logs** are recorded and accessible throughout the platform along with **granular data retention** controls

# AWARE'S PRODUCT VISION STRATEGY



# 2022 Major Release Recap





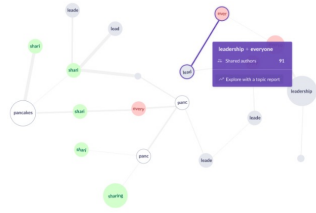
# 2022 MAJOR PRODUCT RELEASE CALLOUTS

Aware

Group Name	Sentiment	Trend
San Francisco	49	↑10
Columbus	48	↑5
Kyoto	52	↓15

## AZURE AD INTEGRATION

Q1 2022



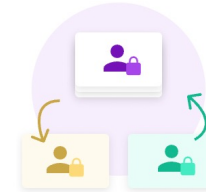
## ORGANIZATIONAL NETWORK ANALYSIS

Q2 2022



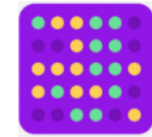
## AUDIT LOGS PHASE 1

Q3 2022



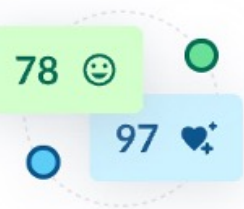
## DATA HOLDS BY AZURE AD GROUP

Q3 2022



## ML PASSWORD DETECTION IN MONITORING

Q3 2022



## BEHAVIOR INDICATORS THAT KNOW YOUR ORGANIZATION

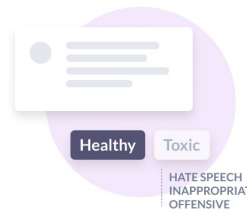
Q2 2022



Aggregate Reactions			
150			
Like	62	Sad	22
Love	18	Angry	18
Haha	21		
Wow	9		

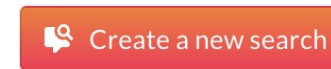
## WORKPLACE REACTIONS IN TOPIC REPORTS

Q2 2022



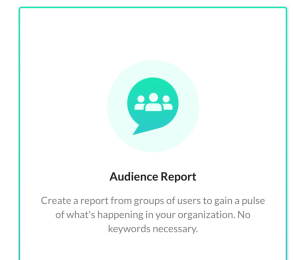
## ML TOXIC SPEECH MODEL ACURACY (+18%) UPDATE

Q2 2022



## SEARCH & DISCOVER BY AZURE AD GROUP

Q3 2022



## CUSTOM REPORTING IN SPOTLIGHT

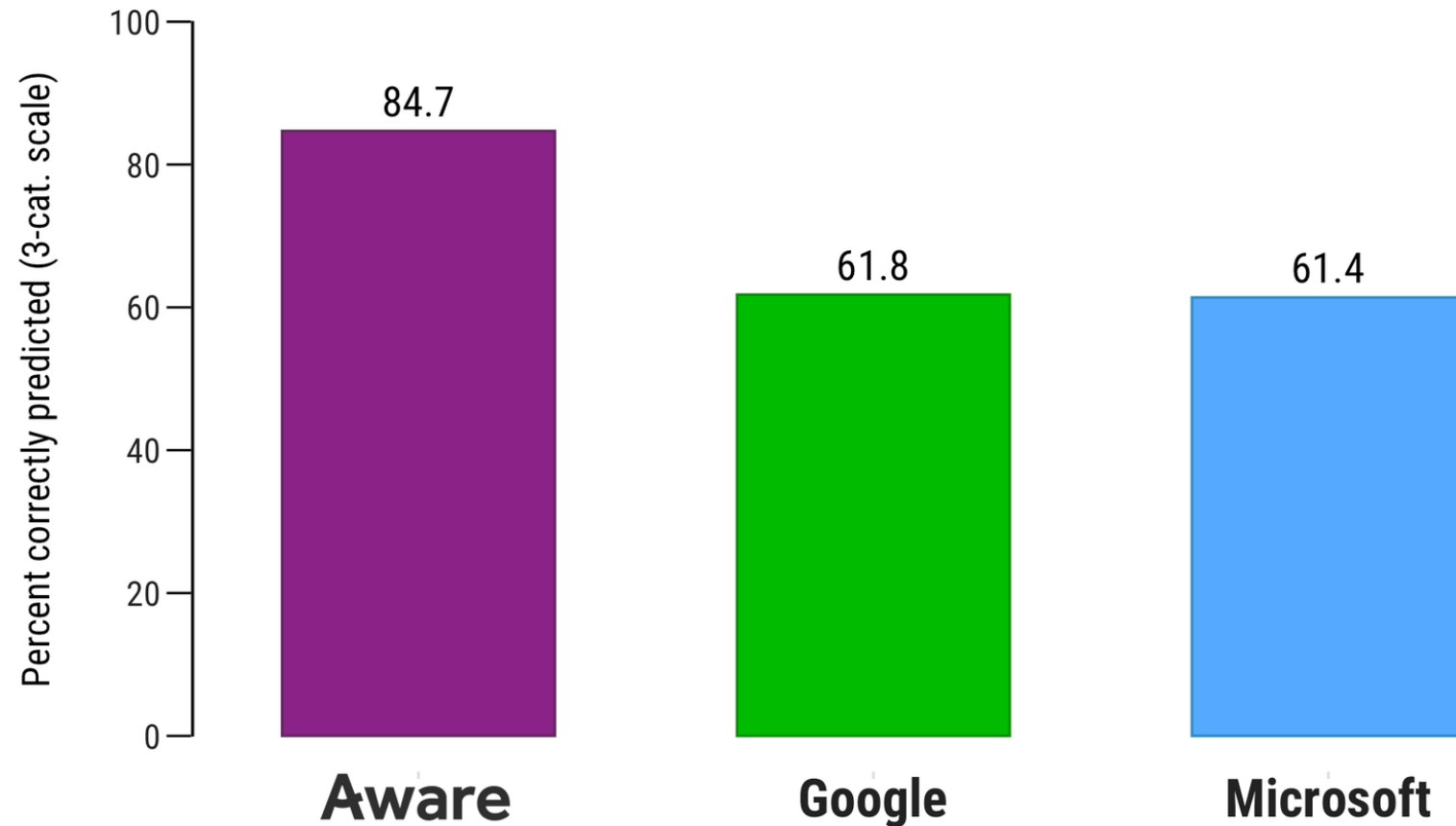
Q4 2022

## Sentiment

BENCHMARKED SEPT 12, 2022

# Sentiment model percent correctly predicted

Performance based on 8,383 randomly-selected, professionally-labeled, and untrained workplace messages



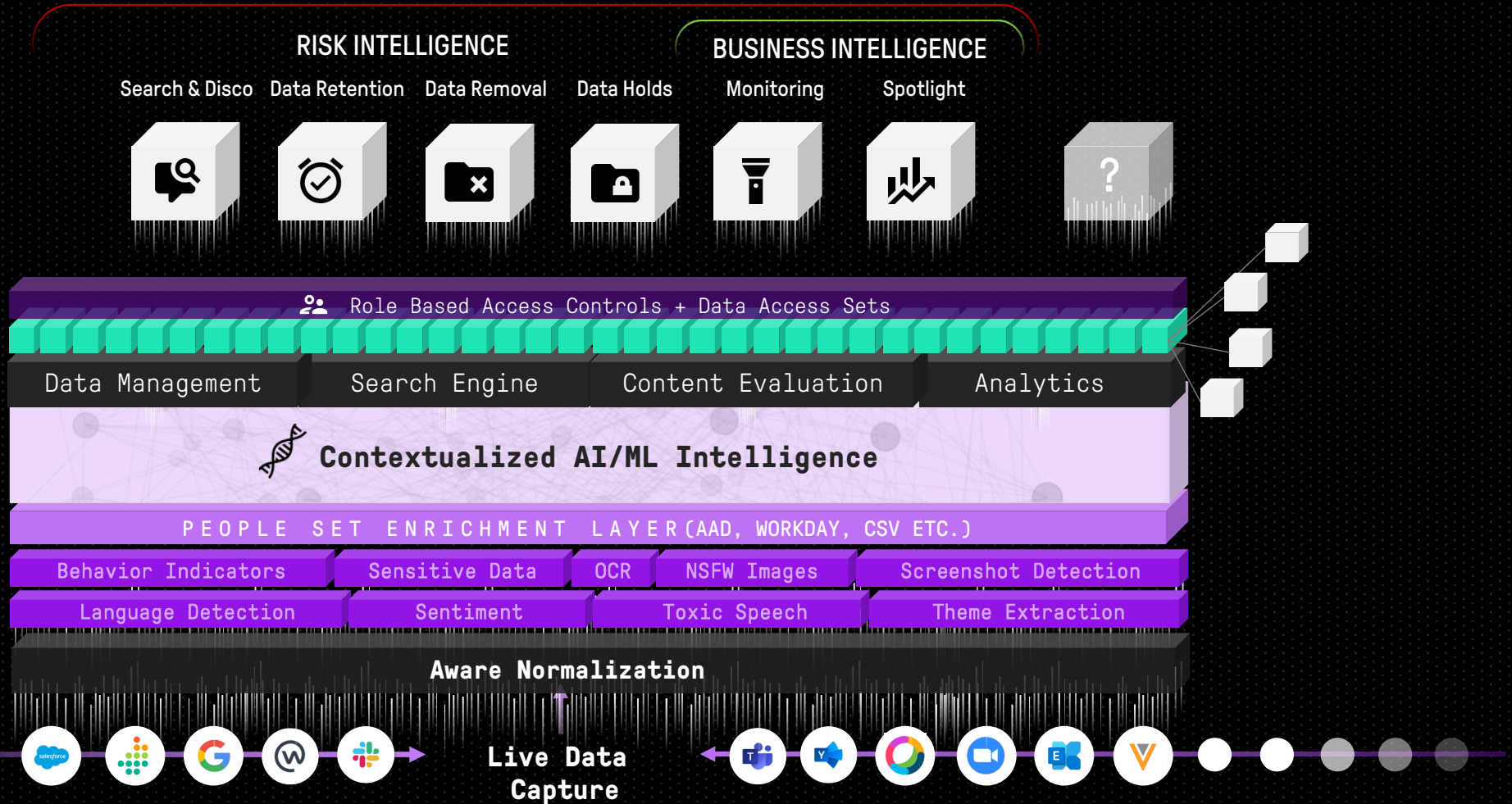
# 2023 Roadmap Themes



# THE AWARE PLATFORM



Role Based  
Access Controls



## Goals

Simple to Predict

Whitelist

Auditable

Integrated

Time Stable

The screenshot displays the 'System Settings | Roles' page in the Aware application. The page is titled 'System Settings' and has a navigation menu with 'Roles' selected. A search bar is present at the top of the roles list. The roles are listed in a table with the following columns: Role name, Last modified, Users, Permissions, and Data Access Sets. A '+ New Role' button is highlighted with a red circle.

Role name	Last modified	Users	Permissions	Data Access Sets
Monitoring Admin	11/08/2022	2	[Icons]	MONITORING ADMIN
S&D Admin	11/08/2022	1	[Icons]	SEARCH AND DISCOVER ...
UI Automated Test - Monitoring Viewer	11/08/2022	1	[Icons]	DAS
UI Automated Test - Monitoring Admin	11/08/2022	0	[Icons]	MONITORING ADMIN
[Original] Role for editing	11/08/2022	1	[Icons]	PUBLIC GROUP DAS
MONITORING RBAC ADMIN	11/04/2022	1	[Icons]	MONITORING ADMIN
S&D RBAC ADMIN	11/04/2022	1	[Icons]	SEARCH AND DISCOVER ...
Monitoring Events Viewer with only Publi...	11/04/2022	1	[Icons]	INDIVIDUAL GROUPS DA...
Monitoring Policies Manager with only In...	11/04/2022	1	[Icons]	INDIVIDUAL GROUPS DA...



## RBAC Applied

### Monitoring

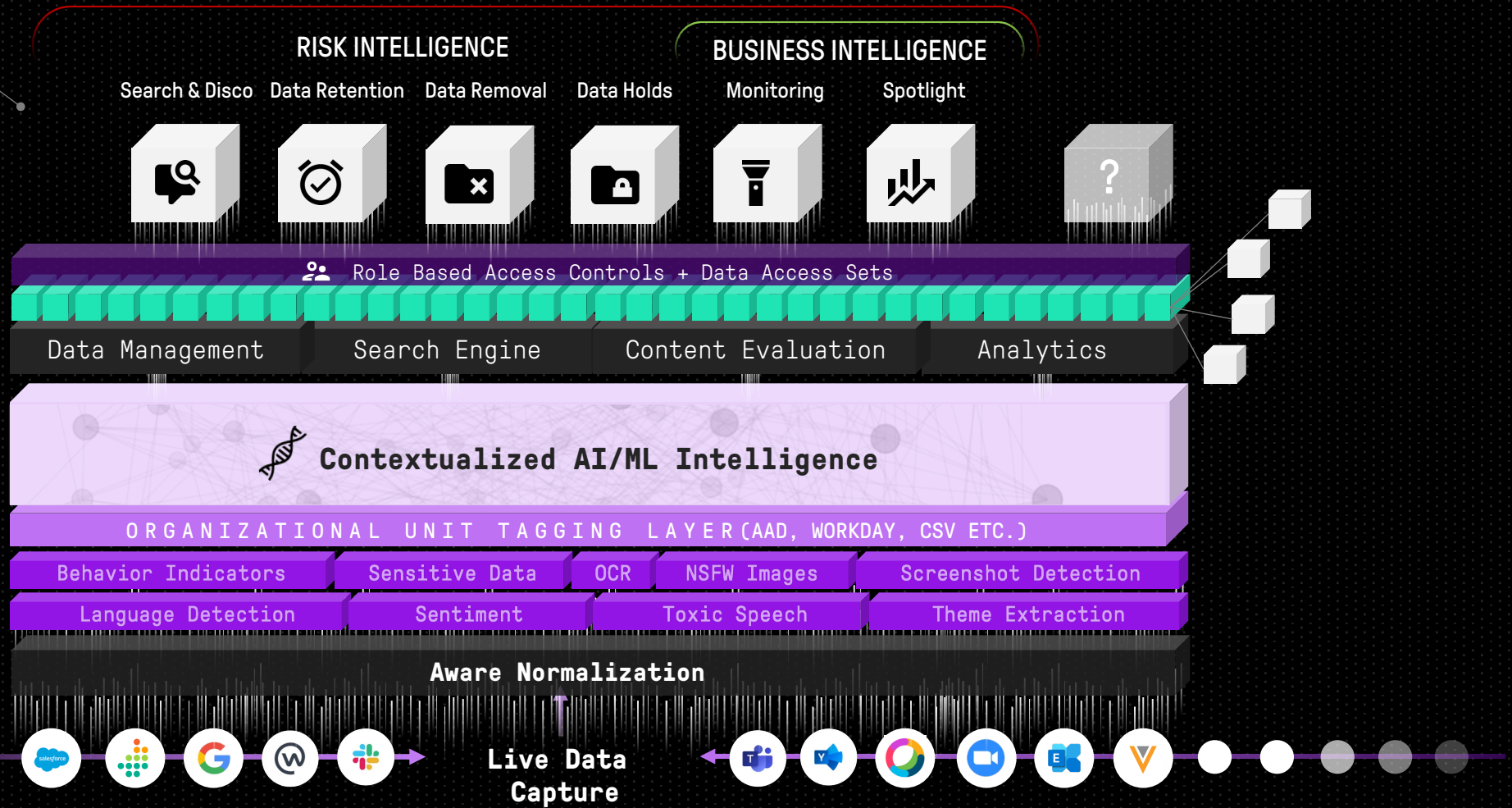
The screenshot displays the 'Roles' section within the 'System Settings' of the Aware application. The interface includes a sidebar with navigation options like 'Spotlight', 'Monitoring', 'Search & Discover', 'Data Hold', 'Retention', 'User Data Removal', and 'Showcase'. The main content area shows a table of roles with the following data:

Role name	Last modified	Users	Permissions	Data Access Sets
Partner Comms - Event Viewer	11/08/2022	5	[Icons]	WORKPLACE GROUPS ONL...
Monitoring Admin	11/08/2022	2	[Icons]	MONITORING ADMIN
S&D Admin	11/08/2022	1	[Icons]	SEARCH AND DISCOVER ...
UI Automated Test - Monitoring Viewer	11/08/2022	1	[Icons]	DAS
UI Automated Test - Monitoring Admin	11/08/2022	0	[Icons]	MONITORING ADMIN
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# THE AWARE PLATFORM



User Applications



## IMPROVED EXPORT EXPERIENCE Q1 2023

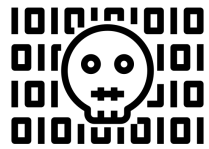
The screenshot shows the 'Aware' Search and Discover interface. On the left is a navigation sidebar with options: Spotlight, Monitoring, Search & Discover (highlighted), Data Hold, Retention, User Data Removal, and Showcase. The main area is titled 'Search and Discover' and has tabs for 'All Searches', 'Processing 2', and 'Exports' (selected). Below the tabs is a search input field with the placeholder 'Find a search' and an 'AI Analysis' button. A table of search results is displayed below, with columns for search name, date, and other details. An 'Export All Content' dialog box is overlaid on the right, showing options for file type (.csv, .pdf, .dat), a description of the export, and additional options like 'Include Message Context', 'Include Images and Files', and 'Generate .txt files'. The dialog has 'Cancel' and 'Create export' buttons.

Search name	Date Created	Count	Owner
Search name	06/09/2020 9:51 AM		
Search name	06/09/2020 9:51 AM		
Search name	06/09/2020 9:51 AM		
Search name	06/09/2020 9:51 AM		
Search name	06/09/2020 9:51 AM		
Search name	06/09/2020 9:51 AM	112,041	TC Tracy Chapman
Search name	06/09/2020 9:51 AM	99,981	TC Tracy Chapman

## IMPROVED SEARCH USER EXPERIENCE H1 2023

The screenshot displays the 'Aware' search interface. On the left is a navigation sidebar with options: Spotlight, Monitoring, Search & Discover (highlighted), Data Hold, Retention, User Data Removal, and Showcase. The main content area is titled 'Aware' and has a top navigation bar with 'Conversations', 'Messages', 'Marked Content', and 'Exports'. A 'Results per page' dropdown is set to 10. Below this are filter buttons for 'AI Analysis', 'Visibility', 'Attachments', and 'Modifications'. The search results are presented in a table-like format with columns for 'Date posted', 'Author', and 'Message'. A 'Show 132 more messages' button is visible. The results include a mix of direct messages and group conversations.

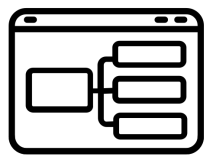
<input type="checkbox"/>	Date posted	Author	Message	
<input type="checkbox"/>	09/24/2021 2:13 PM	Susan	This is the preview of the message content between Susan, Shawn, Olga, and Andi. This	@ 📎 ✎ 🗑
<input type="checkbox"/>	09/24/2021 2:12 PM	Shawn	This is the preview of the message content between Susan, Shawn, Olga, and Andi. This	📎 🗑
<a href="#">Show 132 more messages</a>				
<input type="checkbox"/>	08/24/2019 2:12 PM	Olga	This is the start of the conversation between Susan, Shawn, Olga, and Andi and some of	✎
<input type="checkbox"/>	<b>Engineering</b> (Public Group)		2,035	06/12/2020 2:13 PM
<input type="checkbox"/>	Direct Message between SS SD OB +1		1,216	06/12/2020 2:13 PM
<input type="checkbox"/>	Direct Message between SS SD OB +1		135	06/12/2020 2:13 PM
<input type="checkbox"/>	Direct Message between SS SD OB +1		456	06/12/2020 2:13 PM
<input type="checkbox"/>	Direct Message between SS SD OB +1		781	06/12/2020



LINK REPUTATION & MALWARE DETECTION



SENSITIVE DATA MACHINE LEARNING MODELS



UX IMPROVEMENTS



## LINK SHARING FOR REPORTS 2023

Custom Reporting > Report - X

figma.com/proto/fO7a7LTBTfEn87MIE8NmIF/... -Spotlight?node-id=9613%3A289883&scaling=min-zoom&page-id=6946%3A209717&starting-point-node-id=9613%3A289883...

**Aware** SC

Spotlight  
Monitoring  
**Advanced Reporting**  
Search and Discover  
Data Hold  
Retention  
User Data Removal

< Back to reports

**Topic** Report Actions Export as PDF

September 16 2021 - September 22 2021 +12  
Created by SC Andi Johnson on 09/22/2019 5:35PM

small stigma suicide eap depression anxiety mental headspace **head space** born this way  
meditation self harm mental illness trigger warning trigger signs tw self care

**Message Analysis** Export this section

<p>Total Messages</p> <p><b>529</b></p> <p>Most Messages: Wed, Sep 12 2019</p>	<p>Unique Authors</p> <p><b>56</b></p> <p>Average of 1.38 messages per author</p>	<p>Groups</p> <p><b>56</b></p> <p>Average of 2 messages per group</p>	<p>Sentiment Indicator</p> <p><b>91</b></p> <p>Above Standard · ↓ 2</p> <p>0 55 85 100</p>
--	---	---	--

Messages by Message Type	
Reply to chat	112
Post	112
Comment	77
Chat	340
Platform Doc	0
Poll	0

Messages by Source	
All company	73
Public Group	73
Private Group	115
Direct Message	340
Public Event	0
Private Event	0

Messages by Sentiment	
Positive	183
Neutral	299
Negative	20
Not Scored	22

View Public Sentiment Anomalies

## LINK SHARING FOR REPORTS 2023

**Topic** Report Actions Export as PDF

September 16 2021 – September 22 2021 · +12

Created by Andi Johnson on 09/22/2019 5:35PM

small stigma suicide eap depression anxiety mental headspace head space born this way  
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---	---	---	---

Messages by Message Type	
Reply to chat	112
Post	112
Comment	77
Chat	340
Platform Doc	0
Poll	0

Messages by Source	
All company	73
Public Group	73
Private Group	115
Direct Message	340
Public Event	0
Private Event	0

Messages by Sentiment	
Positive	183
Neutral	299
Negative	20
Not Scored	22

View Public Sentiment Anomalies

## SERIES, SHARING, API AND REPORT CONFIGURABILITY 2023

Builder Concept - Spotlight x

figma.com/proto/fO7a7LTBTFEn87MIE8NmIF/... -Spotlight?node-id=6355%3A197931&scaling=min-zoom&page-id=6349%3A168397&starting-point-node-id=6349%3A168401...

My great report

### Define report scope

Configure your report by adding keywords and phrases, and defining the audience and date ranges for your report.

#### Select report scope

Configure your report by selecting date ranges, keywords, content types, and automated actions.

##### Keywords

Select a search result type and add any keywords or phrases you wish to include.

apples x bananas x oranges x

Wildcard Search Add \* to the end of keywords to return partial matches. [Learn More](#)

##### Audience

Select the content platforms to include for this report. You can specify groups and content sources for each platform.

- Workplace platform name Choose what is included ▾
- Yammer platform name Choose what is included ▾
- Slack (8) Choose Platforms ▾

##### Date Range

Select a date range for this report or choose a custom start and end date to create historical reports.

Select a date range: Custom Dates ▾

Report start and end dates: 09/10/2021 09/17/2021

# THE AWARE PLATFORM



## RISK INTELLIGENCE

## BUSINESS INTELLIGENCE

Search & Disco

Data Retention

Data Removal

Data Holds

Monitoring

Spotlight



Role Based Access Controls + Data Access Sets

Data Management

Search Engine

Content Evaluation

Analytics

Intelligence Fabric



Contextualized AI/ML Intelligence

PEOPLE SET ENRICHMENT LAYER (AAD, WORKDAY, CSV ETC.)

Behavior Indicators

Sensitive Data

OCR

NSFW Images

Screenshot Detection

Language Detection

Sentiment

Toxic Speech

Theme Extraction

Aware Normalization

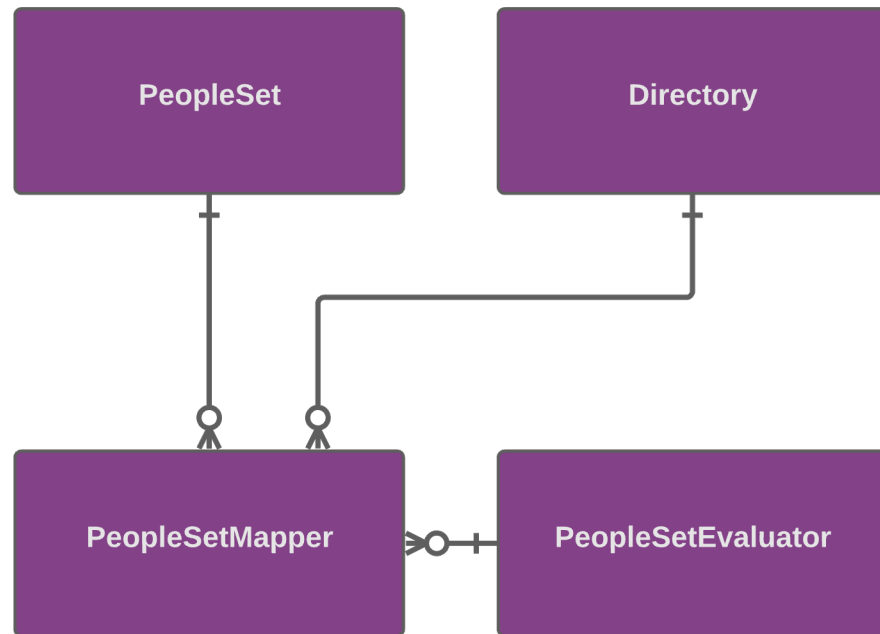


Live Data Capture



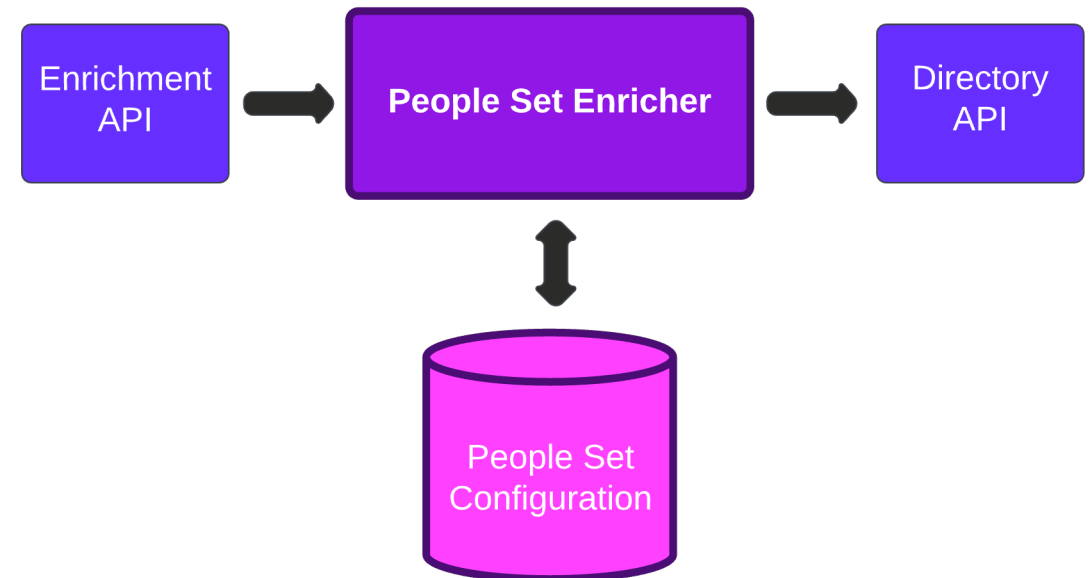
## Putting People Set group roll-up in your hands

Enable user defined people sets that represent a single concept (e.g. Store, Restaurant, Division).



Configuration based extraction of people set values from either attribute or group membership.

Leverage standardized enrichment system to plug in people sets as labels. These labels are then available for monitoring, insights, or other future products.



## People Set Application

### CUSTOM REPORTING

- AAD Groups (Today)
- Define w/.CSV upload (Q1 2023)
- Workday, SAP, etc ... (2023+)

The screenshot shows a web browser window with the URL `dev.aware.work/spotlight/custom-reporting/create`. The page title is "Custom Reporting | Aware". The main heading is "Create a report". Below this, there is a section titled "Name your report" with the instruction "Name or describe this report. It could be an audience name, time frame, or topic description." and an empty text input field. The next section is "Select a report type" with the instruction "Choose from different report types to create a report with data tailored to your needs." There are two report type options: "Topic Report" and "Audience Report". The "Audience Report" option is highlighted with a teal border. A small user profile icon is visible in the bottom right corner of the application window.

**Create a report**

**Name your report**  
Name or describe this report. It could be an audience name, time frame, or topic description.

**Select a report type**  
Choose from different report types to create a report with data tailored to your needs.

**Topic Report**  
Create a report from keywords or phrases found in messages to gain insights around the topics that are important to you.

**Audience Report**  
Create a report from groups of users to gain a pulse of what's happening in your organization. No keywords necessary.

# THE AWARE PLATFORM – API INTEGRATIONS



## The Only Purpose-Built Platform for Today and Future Applications

4

Experience/Streaming Integrations

RISK INTELLIGENCE

BUSINESS INTELLIGENCE

Search & Disco Data Retention Data Removal Data Holds Monitoring Spotlight



Role Based Access Controls + Data Access Sets

Data Management Search Engine Content Evaluation Analytics

3

Aware Platform Open APIs



Contextualized AI/ML Intelligence

PEOPLE SET ENRICHMENT LAYER (AAD, WORKDAY, CSV ETC.)

Behavior Indicators Sensitive Data OCR NSFW Images Screenshot Detection  
Language Detection Sentiment Toxic Speech Theme Extraction

2

Enrichment Integrations  
Aware Normalization

Aware Normalization

1

Integration Agnostic Content Integrations



Live Data Capture

1

## Content Integrations

TODAY



FUTURE

- Slido, Sharepoint, Gchat, Jira, Confluence, GitHub
- Bring your own!

2

## Enrichment Integrations

TODAY

- Azure Active Directory
  - Groups
  - Attributes
- Aware Behavioral Intelligence

FUTURE

- Custom .csv metadata to define People Set
- Workday OUs, HR Systems, etc.
- Bring your own NLP

3

## Aware Platform Open APIs

TODAY

- Data Hold Module Endpoints

FUTURE

- Monitoring Event Endpoints
- Audit Log Endpoints
- Spotlight Endpoints
- Search & Discover Result Endpoints
- Prioritized Customer needs

4

## Experience/Streaming Integrations

FUTURE

- GRC
  - Case Management Systems
  - Security SIEMs
  - Threat Detection Centers
- People Insights
  - Qualtrics/Survey Systems
  - Sprinklr/Social & Brand Listening Systems
  - Culture Amp

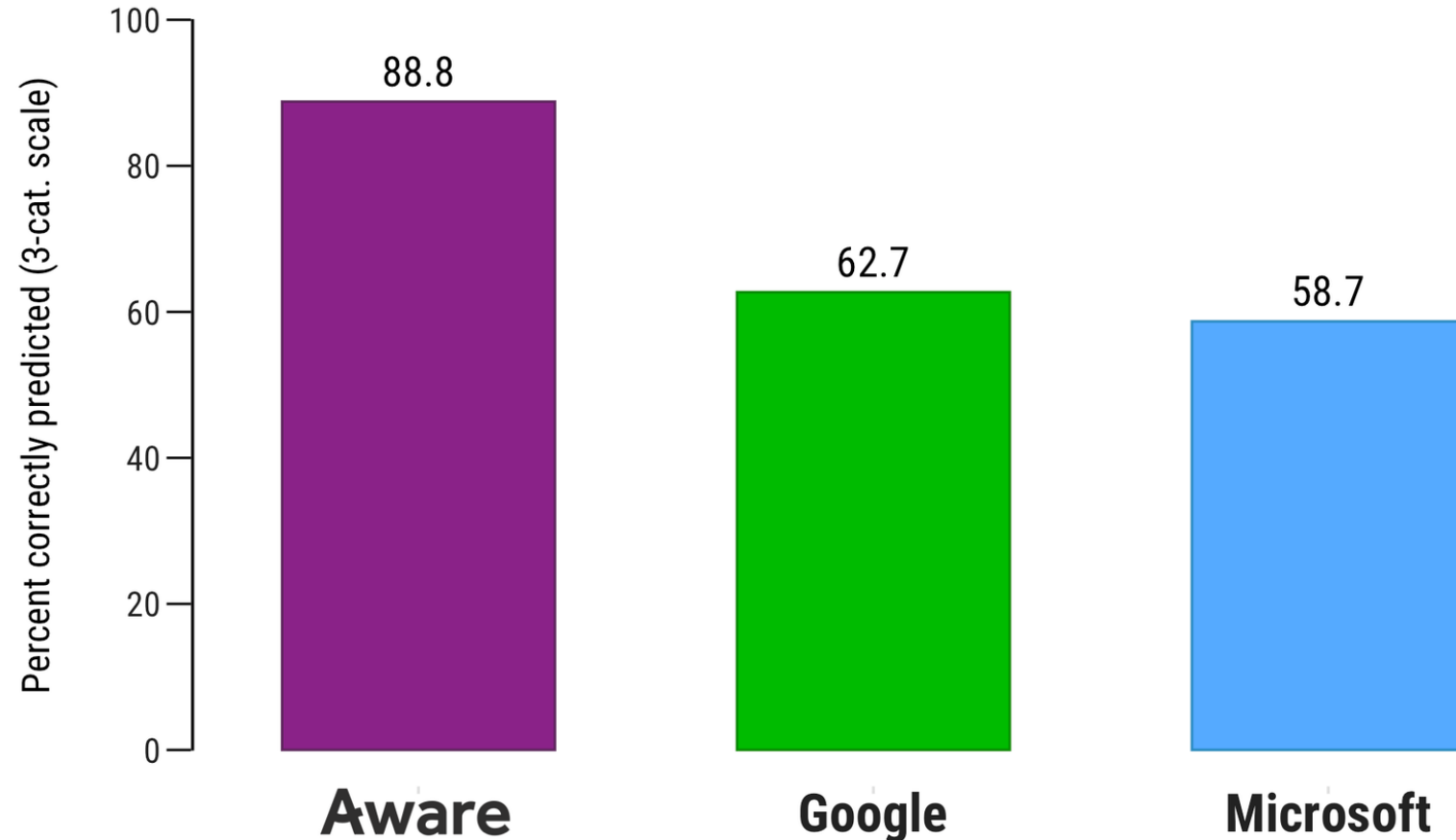


Spanish Sentiment  
SPANISH IN DEVELOPMENT

EARLY 2023

**Spanish sentiment model percent correctly predicted**

Performance based on 4,344 randomly-selected, professionally-labeled, and untrained workplace messages





GR Gregory Ruf 04/09/2020 08:53 PM

TF Tyson Francis 04/09/2020 08:53 PM ✓ EDITED VIEW EDIT HISTORY

Sensitive Data Shared ⚡

confidential.txt DOWNLOAD

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GR Gregory Ruf 04/09/2020 01:59 AM

## AWARE'S PLATFORM MISSION

Address the risks and opportunities with managing the endless stream of human collaboration data, making it **accessible, usable and valuable to everyone.**

# Q&A

