

EXPANDING YOUR COMPETITIVE INTELLIGENCE OPERATIONS WITHOUT BREAKING THE BANK

SCIP INTELICON NASHVILLE 2024



Agenda

- Introduction to the CIRAT
- Infrastructure of the CIRAT
- Watch Program
- Business Intelligence and Innovation Lab (BI²)
- Innovation Entente Lab (IEL)
- Intelligence Fusion Lab (IFL)
- Questions

**PRIVATE
SECTOR**



INTRODUCTION TO CIRAT

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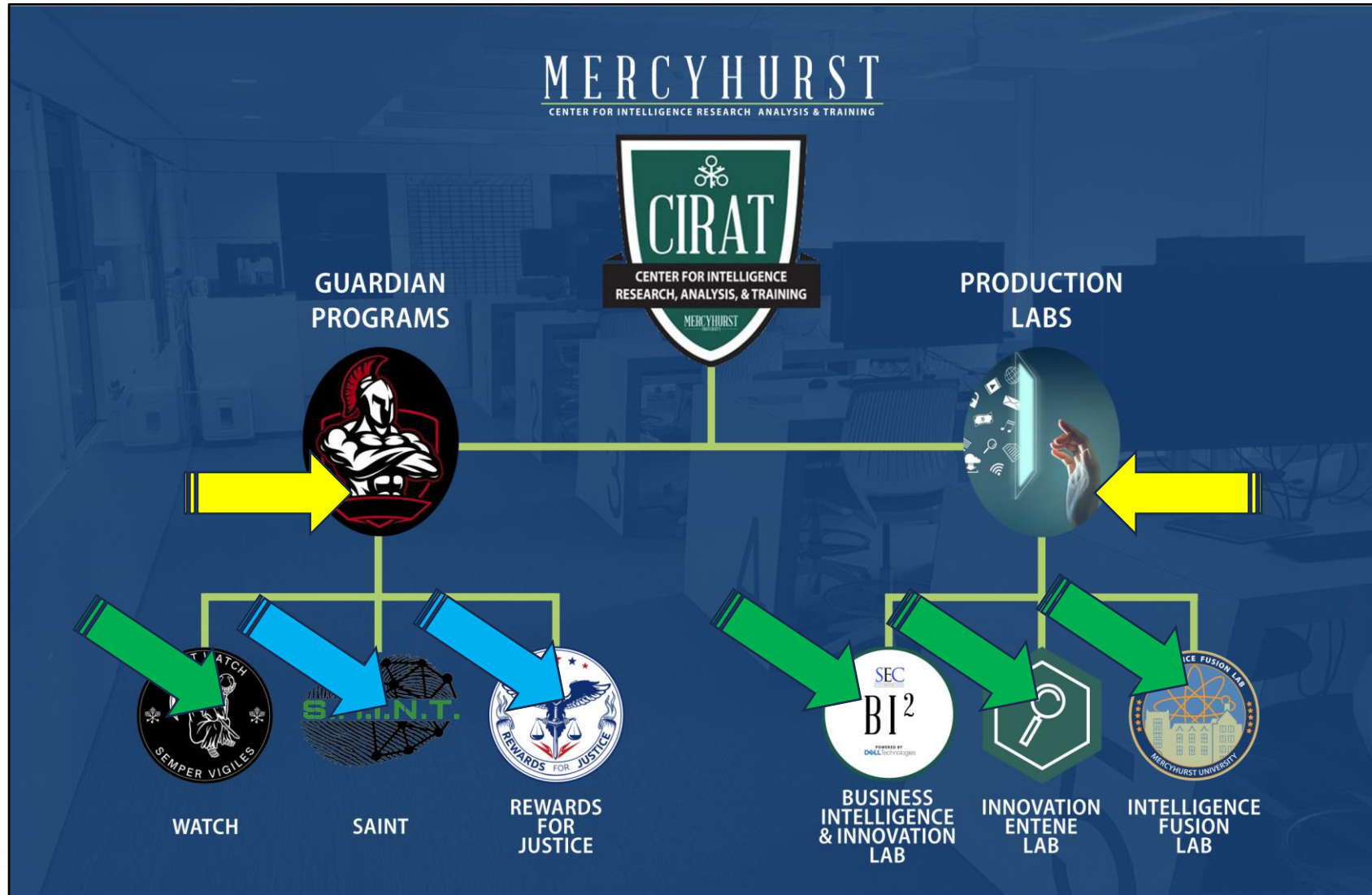
What is the CIRAT?

The **Center for Intelligence Research, Analysis, and Training (CIRAT)** is a nonprofit arm of Mercyhurst University whose mission is to develop opportunities with business and government entities through contracts, grants, and academic partnerships that enhance and professionalize the capabilities of Intelligence Studies and Computer Information Science students, making them competitive in the job market upon graduation.

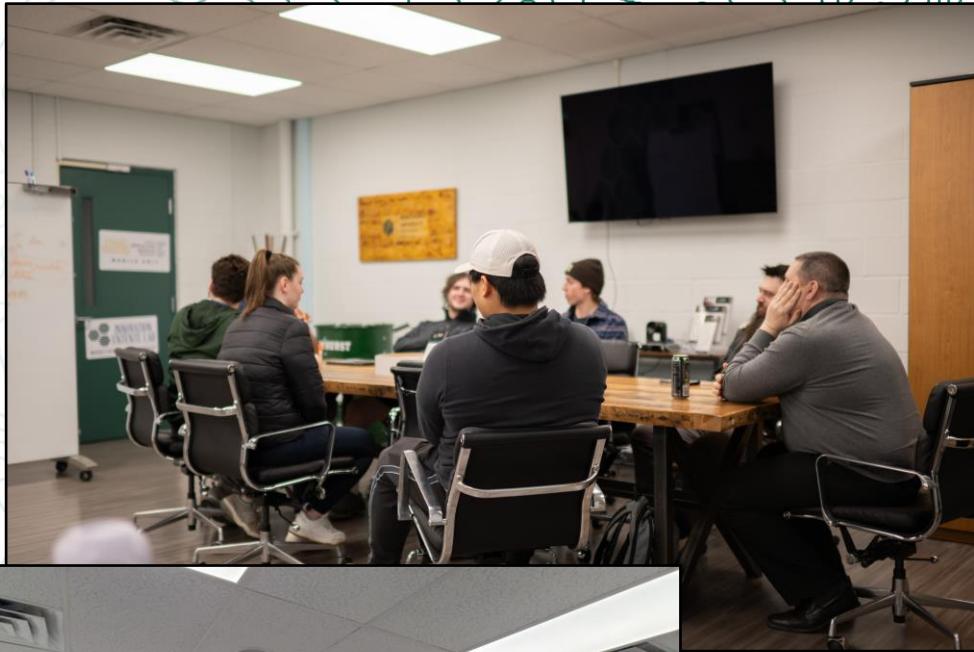
- Students gain applied real-world competitive intelligence, strategic and tactical intelligence, law enforcement intelligence, data analytics, and cyber security experience while working with national security, law enforcement, the Department of Defense, competitive intelligence organizations, private sector businesses, and non-governmental organizations.
- The CIRAT provides these opportunities through contractual product development, direct support, business operations support, internship programs, and grant projects.
- The CIRAT is flexible in setting up contracts with varying time frames and taskings and adapting the scope of work as the client's operational needs pivot.
- The Center consists of three major program focus areas and three production labs, which include the three Guardian Programs (Watch, SAINT, RFJ) and Business Intelligence and Innovation Lab, Innovation Entente Lab, and Intelligence Fusion Lab.



The Center



The Labs

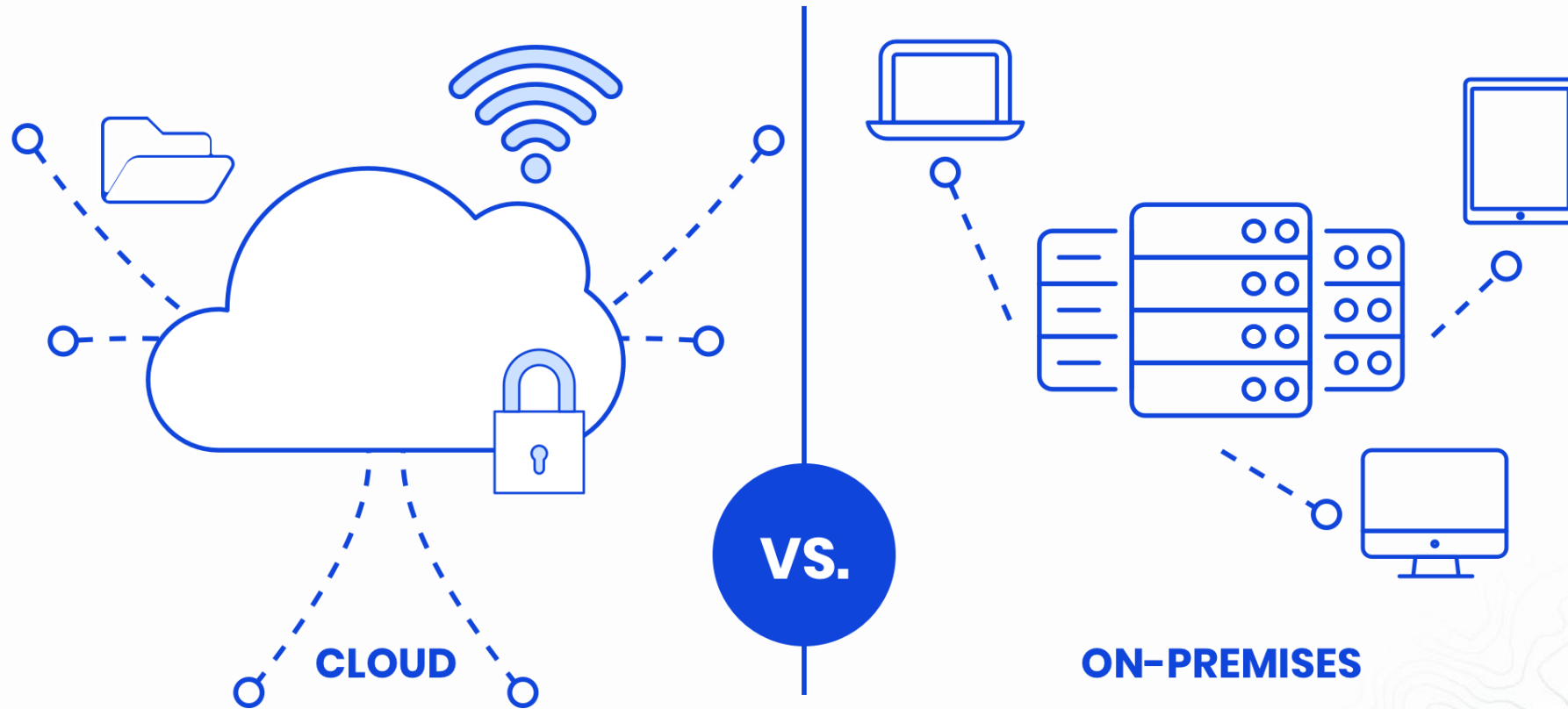


INFRASTRUCTURE OF THE CIRAT

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Network Infrastructure



On Premise Servers

Location: On-premise servers are physically housed within the organization's own facilities, such as a data center or server room. This gives the organization direct control over the servers and their environment.

Ownership and Maintenance: The organization is responsible for purchasing, installing, configuring, and maintaining the on-premise servers. This includes tasks such as hardware maintenance, software updates, security patches, and backups.

Data Security: With on-premise servers, the organization has full control over the security measures implemented to protect their data. They can customize security protocols to meet their specific needs and regulatory requirements.

Performance: On-premise servers can offer high performance and low latency since they are near the users and other network resources within the organization.



On Premise Servers

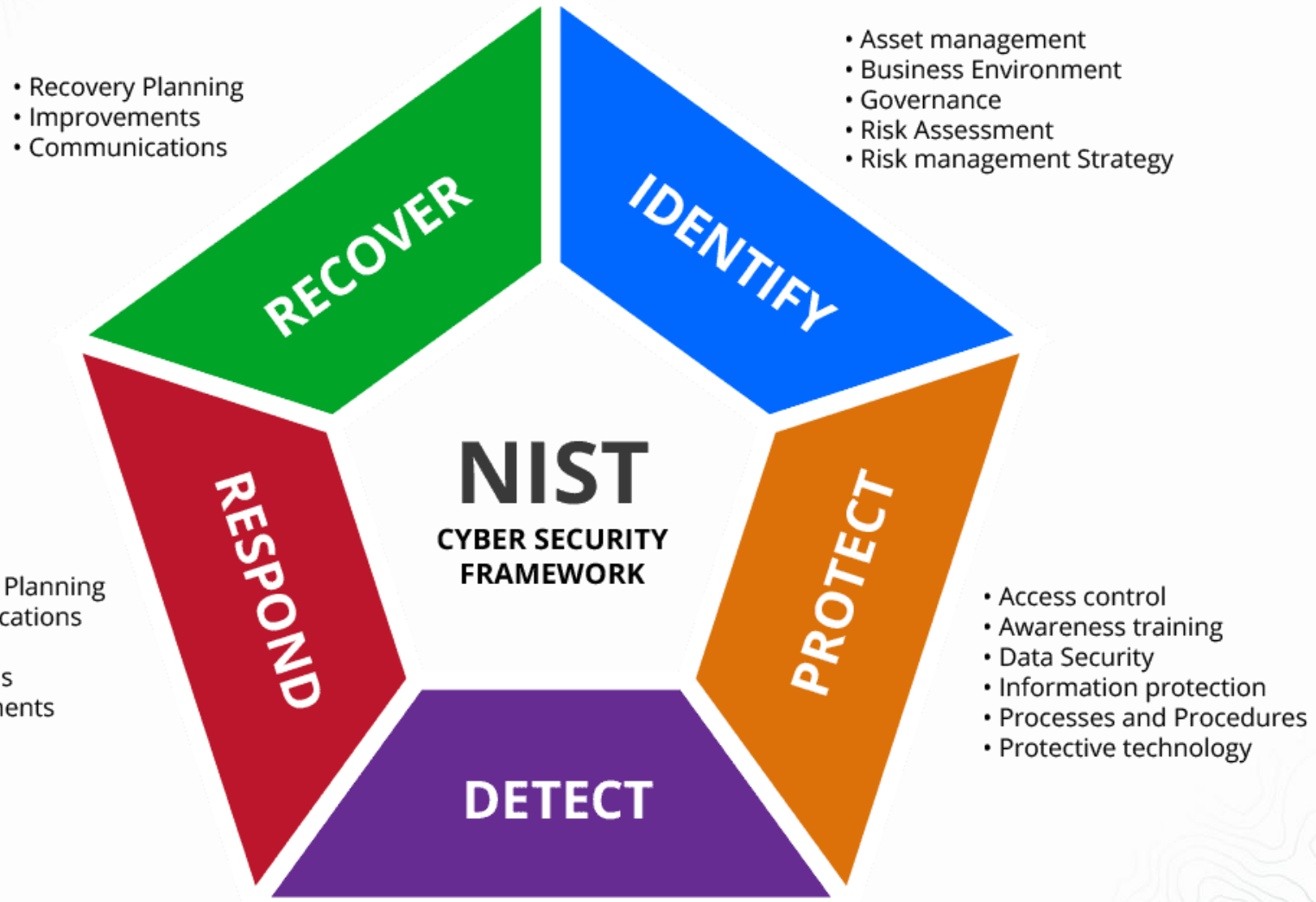
- **Costs:** While on-premise servers may involve higher upfront costs for hardware and infrastructure setup, they can be cost-effective in the long run for organizations with predictable workloads and IT budgets.
- **Scalability:** Scaling up on-premise servers typically involves purchasing additional hardware, which may take time and resources. However, organizations have full control over the scalability process and can tailor it to their specific requirements.
- **Redundancy and Disaster Recovery:** Organizations must implement their own redundancy and disaster recovery solutions for on-premise servers, such as redundant hardware, backup power sources, and off-site backups, to ensure business continuity in case of hardware failures or disasters.



NIST Certification

- **Understanding Risks:** Identifying and documenting the cybersecurity risks and threats relevant to the CIRAT's operations and services.
- **Establishing Policies:** Developing and implementing foundational cybersecurity policies and procedures tailored to the organization's needs and objectives.
- **Implementing Basic Controls:** Deploying basic cybersecurity controls and safeguards to protect against common threats, such as antivirus software, firewalls, and access controls.
- **Training and Awareness:** Providing cybersecurity training and awareness programs to staff and stakeholders to promote a culture of security awareness and compliance.
- **Incident Response Plan:** Developing and documenting an incident response plan to effectively respond to cybersecurity incidents and minimize their impact on operations.
- **Continuous Improvement:** Establishing processes for continuous monitoring, assessment, and improvement of cybersecurity practices and controls based on evolving threats and organizational changes.





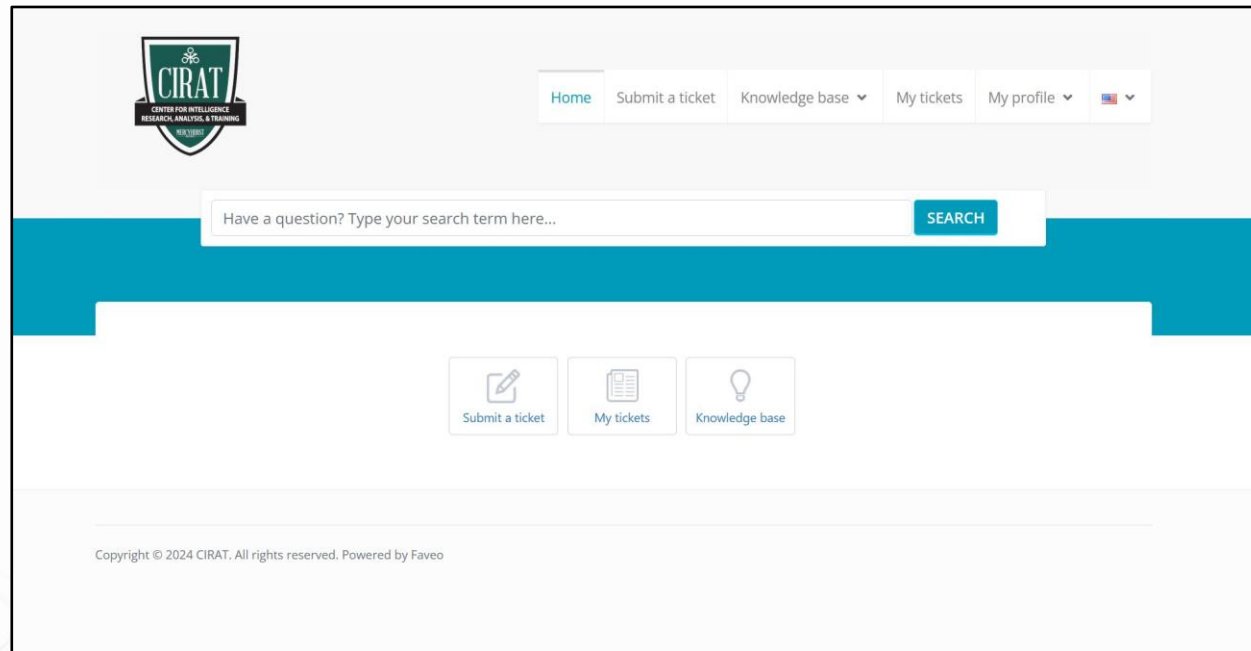
NIST Certification: What we gain

- **Credibility and Trust:** Certification from a reputable institution like NIST enhances an organization's credibility.
- **Competitive Advantage:** Certification can provide a competitive edge in the marketplace.
- **Risk Mitigation:** Compliance with NIST standards helps mitigate various risks, such as data breaches, cyber-attacks, and non-compliance penalties.
- **Access to Opportunities:** Some contracts, particularly in government and certain industries, may require NIST certification as a prerequisite for participation.
- **Continuous Improvement:** The certification process often involves rigorous assessments and audits, encouraging organizations to continuously evaluate and improve their processes, systems, and security measures.
- **Global Recognition:** NIST standards are recognized globally, which can benefit organizations operating in international markets.
- **Cost Savings:** While obtaining certification may involve upfront costs, it can lead to long-term cost savings by reducing the likelihood of security incidents, regulatory fines, and legal liabilities associated with non-compliance.



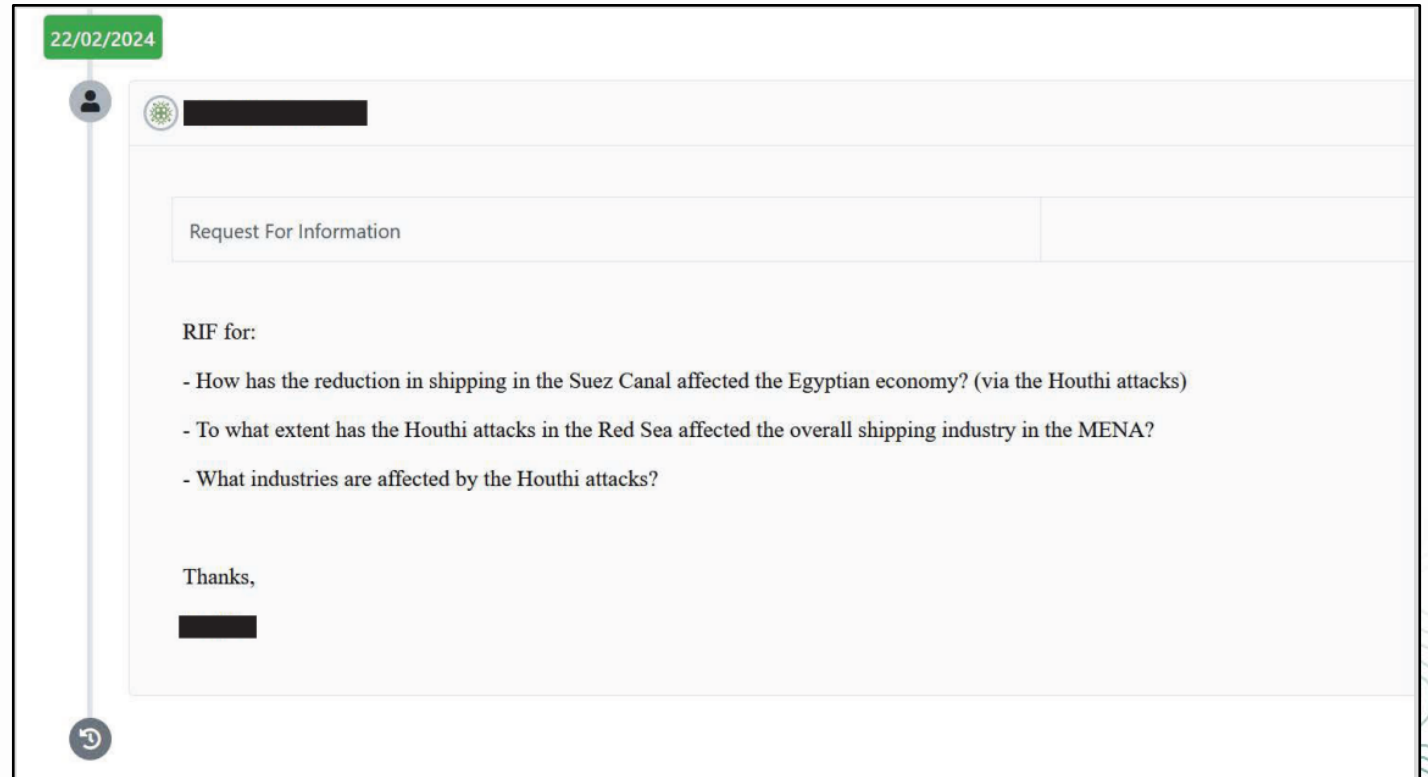
Intelligence Helpdesk System

- **Ticket Creation:** Users (customers, employees, etc.) submit their questions or issues through various channels such as email, phone calls, online forms, or a dedicated portal.
- **Ticket Assignment:** The system automatically assigns the ticket to the appropriate support agent or team based on predefined criteria such as issue type, urgency, or expertise.
- **Ticket Tracking:** Agents work on resolving the tickets assigned to them. They update the ticket with progress, notes, and solutions as they work on the issue.



Intelligence Helpdesk System

- **Communication:** The system facilitates communication between support agents and users. Users may receive updates on their tickets via email notifications or through the system's portal.
- **Resolution and Closure:** Once the issue is resolved, the ticket is marked as resolved or closed. Users may also provide feedback on their experience with the support process.
- **Analytics and Reporting:** Helpdesk systems often include reporting and analytics features that allow organizations to track metrics such as ticket volume, resolution times, customer satisfaction scores, and common issues. This data can be used to identify trends, improve processes, and optimize support operations.



Helpdesk Statistics

Department	Closed	Deleted	Open	Resolved	Totals
CIRAT Support	32	3	4	3	42
GA Support	19	0	7	0	26
Support	4	0	0	1	5
The Watch	2	0	10	0	12
Tools	17	0	13	2	32
Totals	74	3	34	6	117

*24 January 2024 – 18 April 2024



Tools and Platforms*



The GDELT Project



MALTEGO



ArcGIS



AirNav RadarBox
You fly. We track.



ShipXplorer



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* These are only tools hosted on-premises



WATCH PROGRAM

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Agenda

- What is a Watch?
- Structure
- Three I's
 - Indication
 - Investigation
 - Information
- Training Exercise



The Watch: Team Composition



- Fall Term 2023
- Faculty, 4 Graduate students, and a handful of Undergrads
- Near-immediate report of an observed anomaly
 - Sent onward / upward to USG agency

- Current incarnation
- Faculty, 3 Grad students, 11 Undergrads



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The Watch: Products



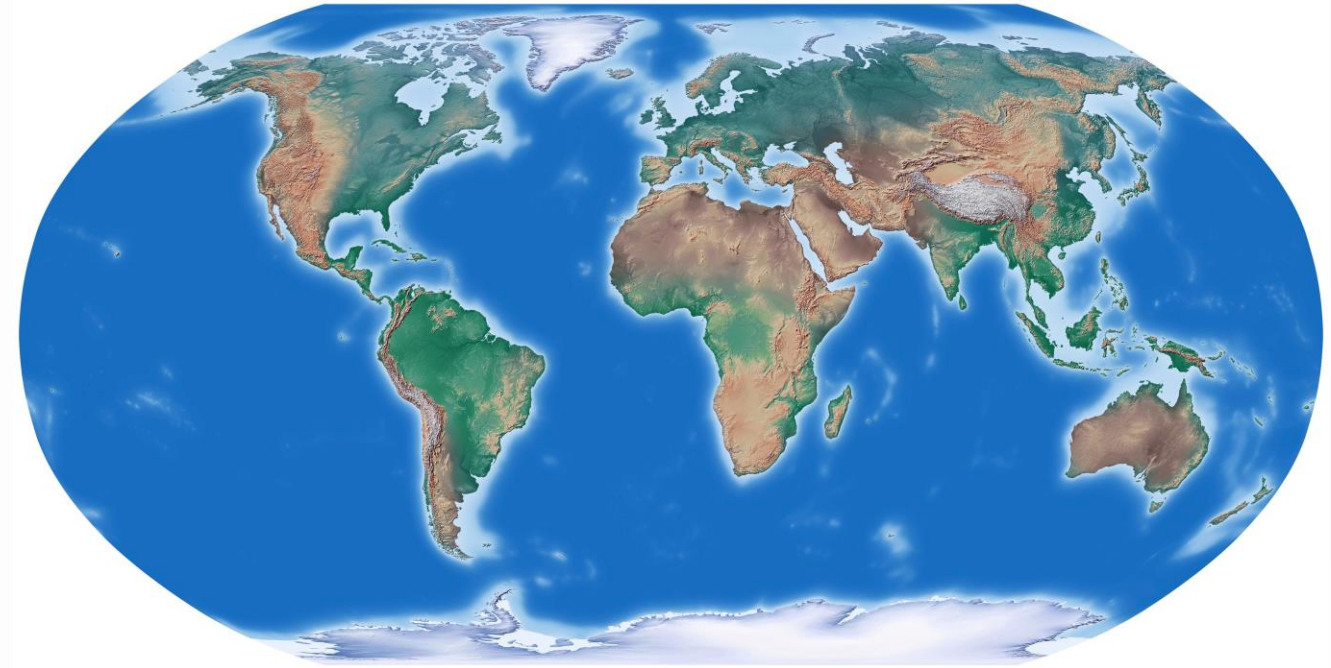
- Three (3) Monitoring Units, each led by a Graduate student
 - Branding / Sentiment Analysis / Competitive Intelligence (MMU)
 - Geopolitical (GMU)
 - Transportation (TMU)
- Daily & Weekly Reports, with updates as necessary
- Immediate concerns
- Future: Dashboard



The Watch: Areas of Responsibility



- Asia
- Americas
- Europe
- Africa
- Middle East



Watch Function = Global Security Operations Center (GSOC)



- The Watch is a program that monitors and analyzes a dynamic list of client indicators on a global scale. Some capabilities include geopolitical risk analysis, air and marine monitoring, and comprehensive open-source research. Based on observed behaviors and/or actions that suggest something is going to happen or has happened, the Watch has predetermined courses of action (COA). All of this is done to disseminate intelligence in a timely manner to the decision maker.





3 I's

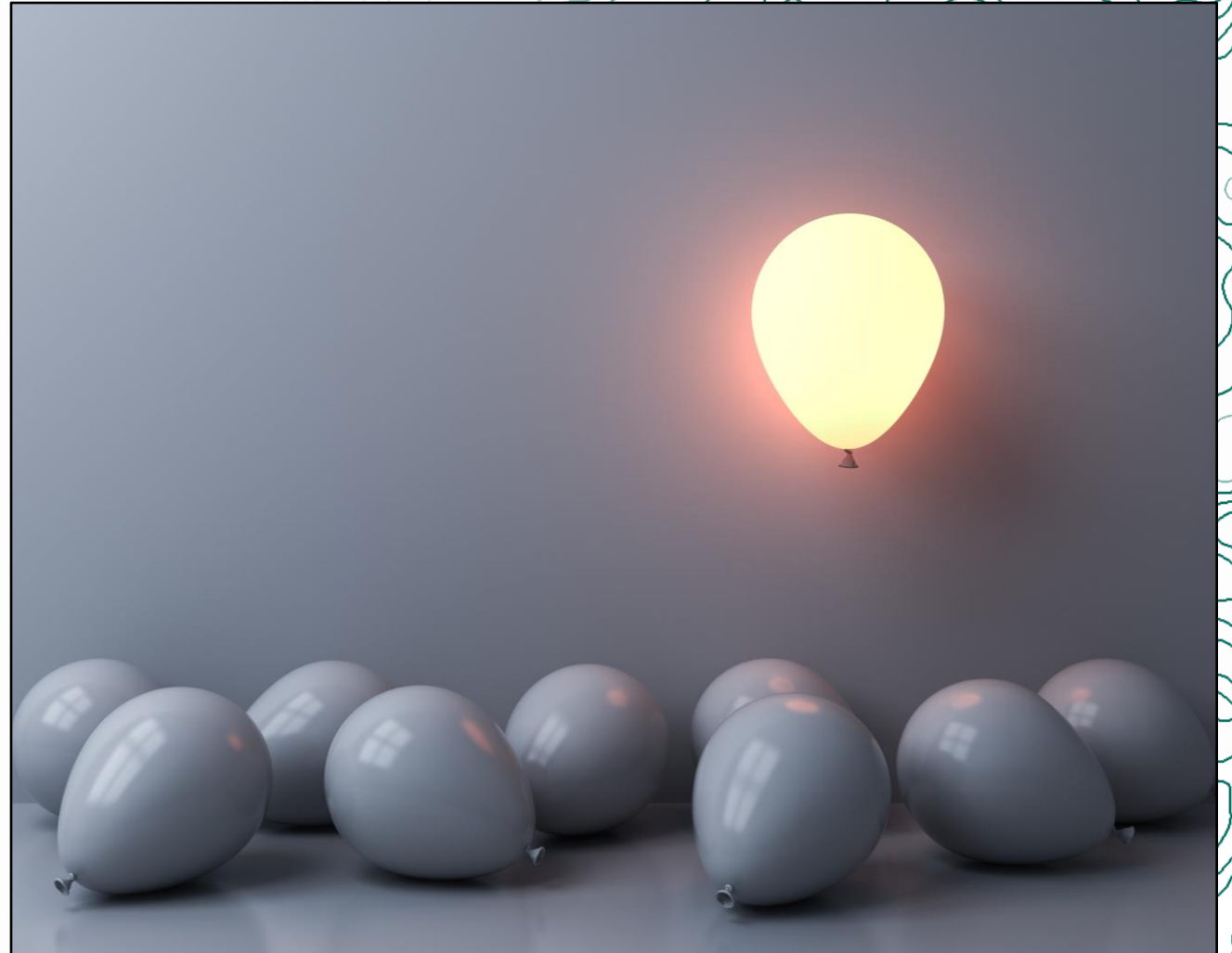
Indication, Investigation, Information



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Indication

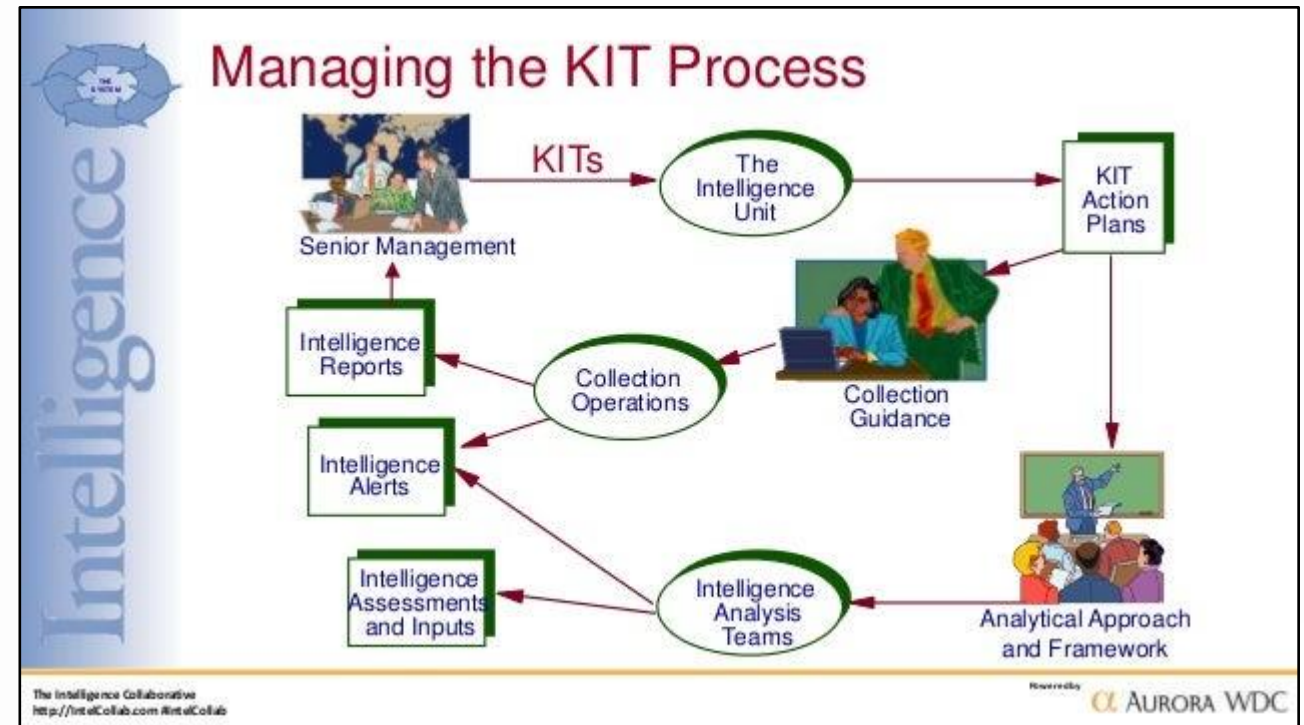
- Observe behaviors and/or actions that suggest something is going to happen or has happened.
- Utilize Key Intelligence Topics (KIT's) to shape your monitoring.



Setting Up Early Warning Indicators

Key Intelligence Topics (KIT's)

- Recent M&A in your sector
- Change in Gov Policy
- Macro-economic factors
- Competitor PR



Collection Requirements

Topic	Question	Monitor Frame	Indicator Level
Industry	Will company x merge with company y?	FY23	5
	Is company x coming out with a new summer line?	1/01/23-06-01/23	3
Government	Will a new president's policy affect this industry?	2024 - 2025	2
	How will this policy change the market?	Next 3 Months	4
Brand	What is the public perception of this new endeavor?	Next 3 Months	3
	How bad is the backlash on the leaked internal memos?	Next 3 Months	5
Environment	Is my container ship on schedule?	Until Arrival	5
	What are the long-term effects of climate change on my supply chain?	Indefinite	1

Indicator Level Key	
5	Daily Updates
4	Weekly Updates
3	Bi-weekly Updates
2	Monthly Updates
1	As needed



Mercyhurst Monitoring Unit (MMU)

Brand Protection

Applied Example:

- Keywords & Topics from the Administration
 - Local & Regional issues affecting the University
 - National issues on Higher Education
 - Specific Competitive Intelligence on similar Universities / Programs
- Special Topics / Projects as arise
- Self-directed
 - Based on findings and internal discussion



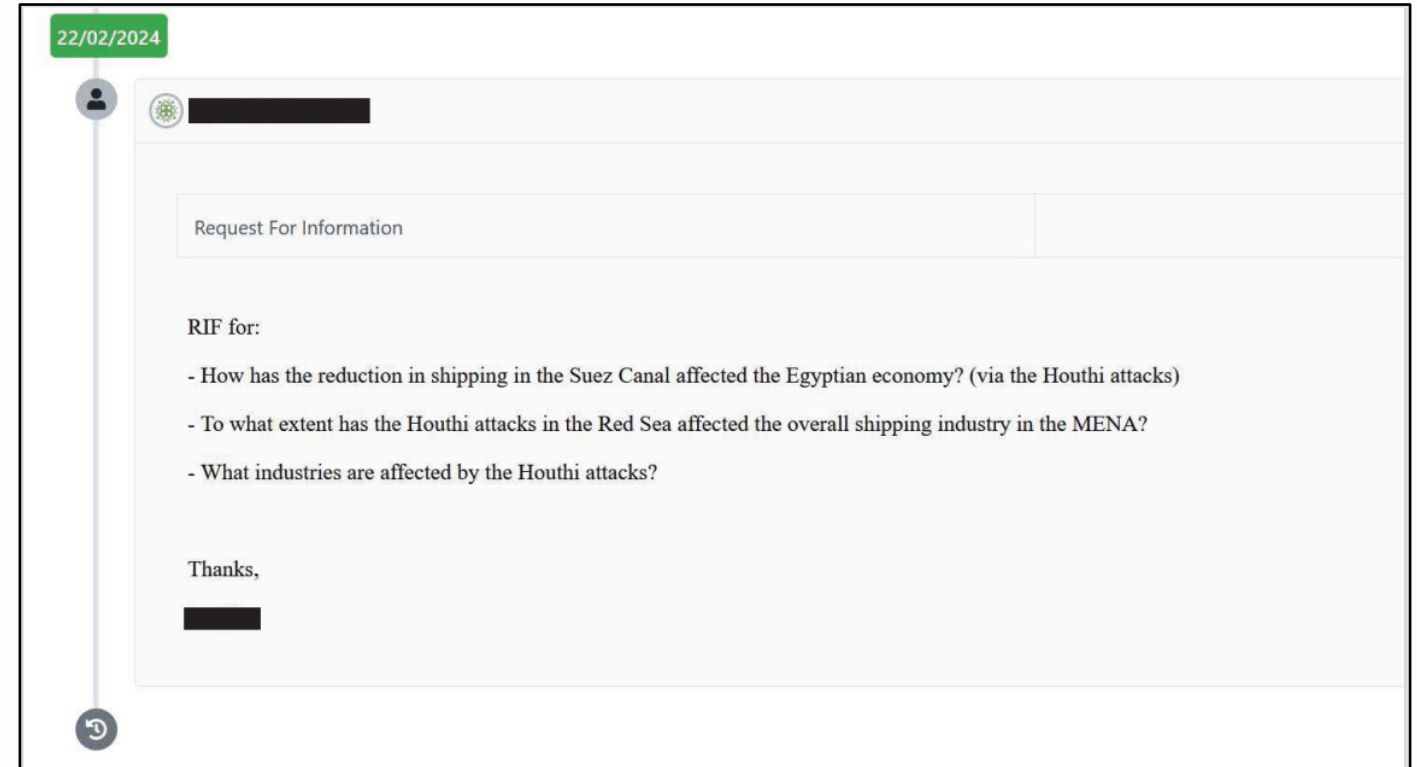
Watch Center Support for You

- Standalone unit/team that monitors all potential threat & opportunity Indicators
- Company-wide support
- Other units provide Indicators for monitoring & POC



Watch Center Support for You

- RFI submissions as necessary and applicable
- Tailored to your company requirements
 - Local? Regional? National? Specific location?
 - Industry-wide? Product-specific? Brand-specific?
 - Threat- / Opportunity-specific?



Watch Center Infrastructure

- Existing Office
 - Add a monitor/large monitor
 - Separate/other workstation
 - Global monitoring (CNN, Flight Tracking, Marine Tracking, etc.)
- New Space
 - Add several monitors and workstations for collaborative environment
 - A/V system to project & present
 - Some seating arrangement for decision makers & interested parties



Watch Desk Operations Center

- Communications Center
- Controlled environment for specific issues or operations
- Common space in/at Headquarters for important meetings & updates
- Training & education center



Support for Your Company

- Competitive Environment Analysis
 - All-source analysis on your Industry/Products/Services
- Brand Sentiment Analysis
 - News and social media action & reaction to your company
 - Action & reaction to brands & Products / Services
 - Reactions to growth/downsizing plans & rumors
- Threat / Risk Assessments
 - “Random” threats/threat actors – from social media trolling to violent threats and real-world penetration attempts or protests
 - Economic and Physical risks





Investigation

- Fact-finding mission to determine whether your organization or AOR is threatened- based on initial indications.
- Start your investigation by defining your Key Intelligence Questions (KIQ's)

Starting Your Investigation

Key Intelligence Questions (KIQ's)

- How will this merger affect the industry?
- When will this new government policy go into effect?
- What is causing turbulence in the market?
- Ex. Where will this industry be holding its annual conference?



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Tradecraft: Google Dorking

Google can often return a swathe of results, some of which are unrelated to your query. Google Dorking allows you to hone your query with specific operators that filter your results.

- Filter by Site
- Filter by File Type
- Filter by Date
- Boolean Operators

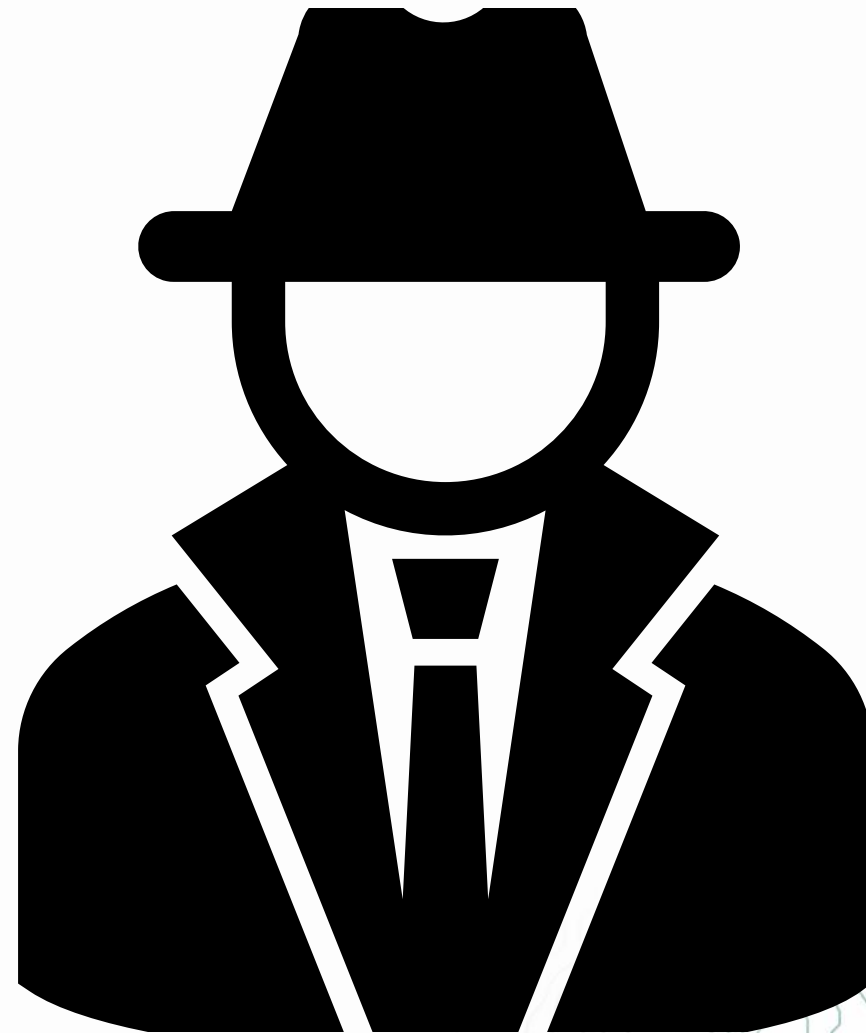
The screenshot shows a Google search interface with the query "scip.org intext:conference AND location AND 2024" entered in the search bar. The search results are filtered to show only the website "scip.org". The first result is titled "Upcoming Events" and includes the text "Competitive Intelligence Conference. Upcoming ... SCIP IntelliCon 2024 Sponsorship Opportunities 4/22/2024 ... 4/22/2024 » 4/25/2024 Location: Nashville, Tennessee." The second result is also titled "Upcoming Events" and includes the text "... 2024 · Conference Home · Hotel and Travel · Program ... Conference Week of Sunday, April 21, 2024. Monday ... 4/22/2024 » 4/25/2024 Location: Nashville, Tennessee." The third result is titled "SCIP IntelliCon US Nashville 2024 Program" and includes the text "INTELLICON US 2024. NASHVILLE. April 22-25 CONFERENCE HOME · REGISTRATION · PROGRAM · SPEAKERS · SPONSORSHIP OPPORTUNITIES · HOTEL & TRAVEL. IntelliCon...".

Tradecraft: Managed Attribution

Change your appearance when investigating in the public domain.

- IP Address
- Device Type
- Time Zone
- Language

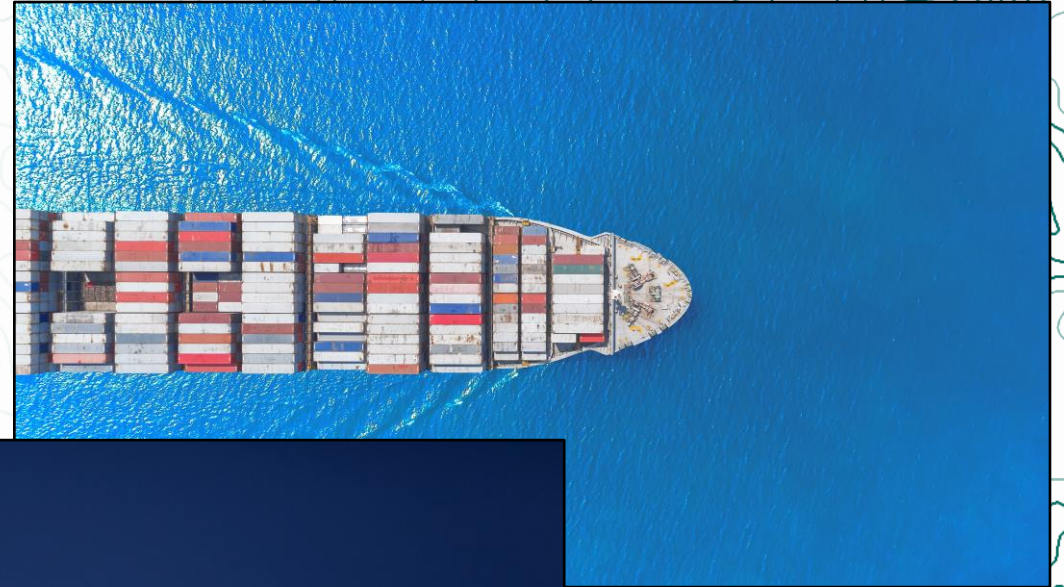
Conducting anonymous secondary research can lead to better results. As a company you are researching may obfuscate otherwise publicly available information from their competitors.



Tradecraft: Air and Marine Monitoring

Keeping a Watch on the skies and the seas can provide valuable insights:

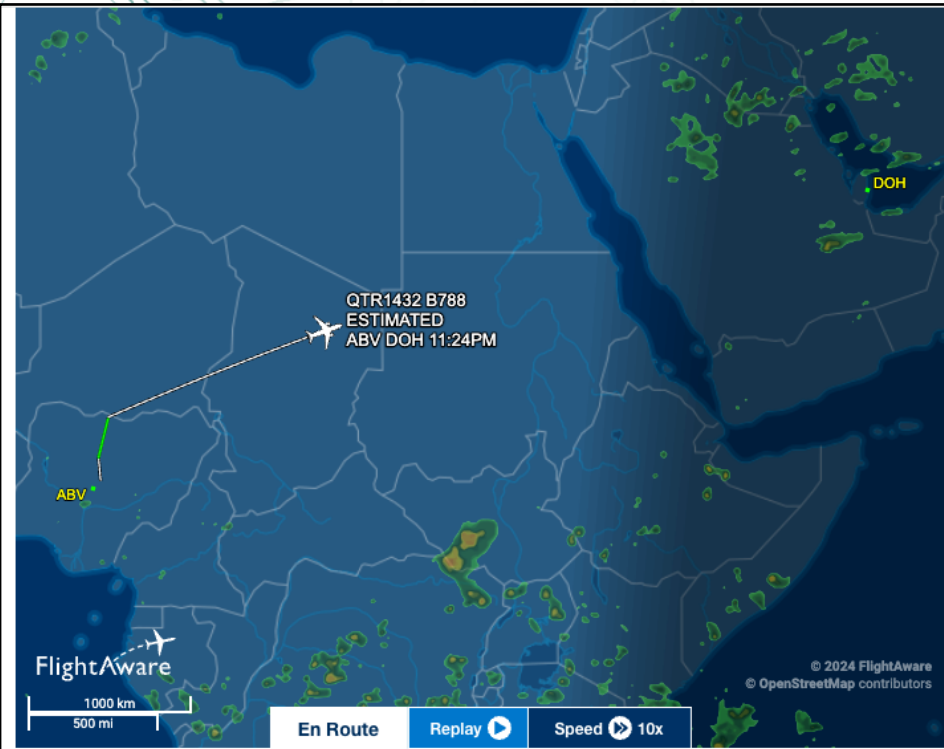
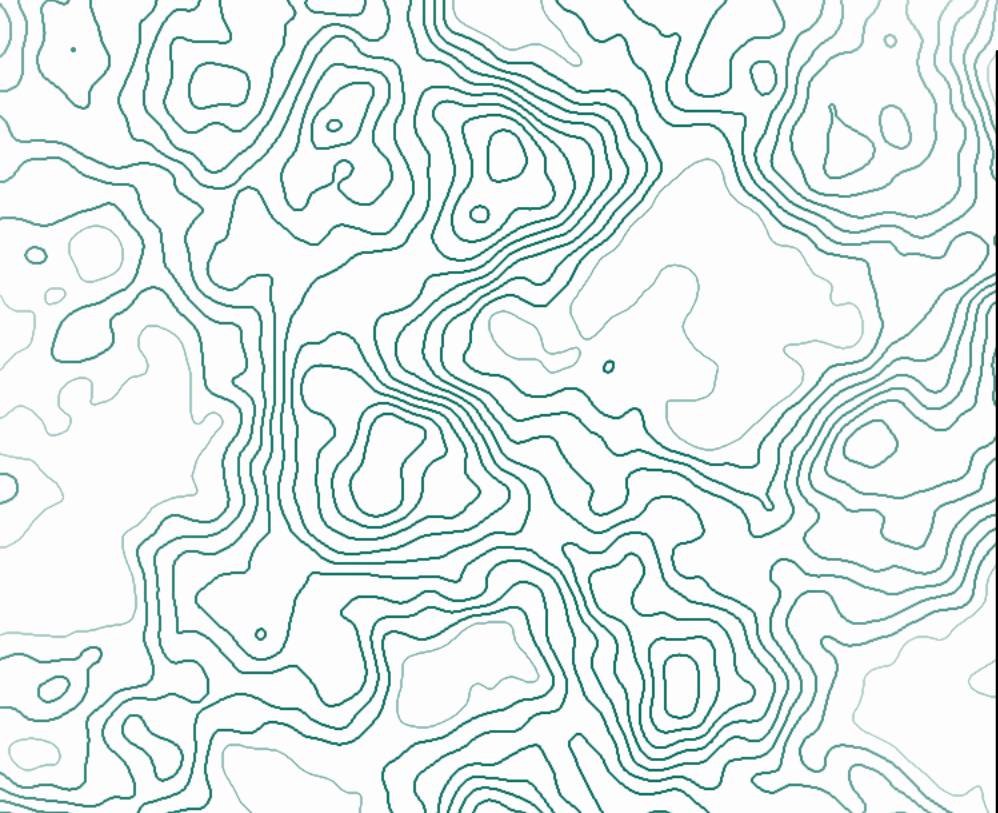
- Shipping Status
- Airport/Port Status
- Executive Protection
- Competitor PJ travel



Tradecraft: Flight Tracker

- RadarBox
- FlightAware
- FlightTracker24
- PlaneFinder





Flight Details

updated 28 seconds ago

[View track log](#)

[Track inbound plane](#)

[All flights between ABV and DOH](#)

Departure Times

Gate Departure	Takeoff
01:29PM WAT	01:44PM WAT
Scheduled 01:15PM WAT	Scheduled 01:25PM WAT

Taxi Time: 15 minutes
Average Delay: 10-20 minutes

Arrival Times

Landing	Gate Arrival
11:24PM +03	11:34PM +03
Scheduled 11:45PM +03	Scheduled 11:55PM +03

Taxi Time: 10 minutes
Average Delay: Less than 10 minutes

Aircraft Details

updated 28 seconds ago

Aircraft Information


Aircraft Type	Boeing 787-8 (twin-jet) (B788)	Photos
Registration	Upgrade account to see tail number	

Airline Information

Airline	Qatar Airways "Qatari"	all flights
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Flight Data

Speed	621 mph (Planned: 375 mph)	graph
Altitude	38,000 ft	graph
Distance	Direct: 3,121 mi	



Qatar Airways 1432

QTR1432 / QR1432
[Upgrade account to see tail number](#)

EN ROUTE AND ON TIME
Arriving in 5 hours 2 minutes

ABV
ABUJA, NIGERIA
left **TERMINAL B**
[Nnamdi Azikiwe Int'l. - ABV](#)

DOH
DOHA, QATAR
landing at
[Hamad Int'l. - DOH](#)

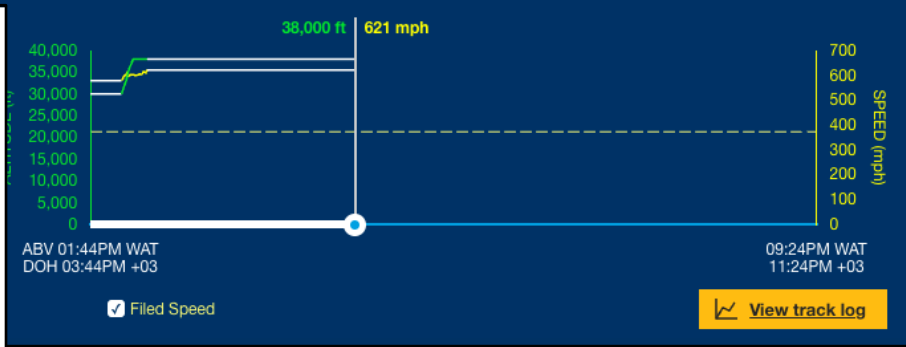
MONDAY 15-APR-2024
01:29PM WAT (on time)

MONDAY 15-APR-2024
(21 minutes early) 11:34PM +03

3h 3m elapsed
1,077 mi flown

8h 5m total travel time

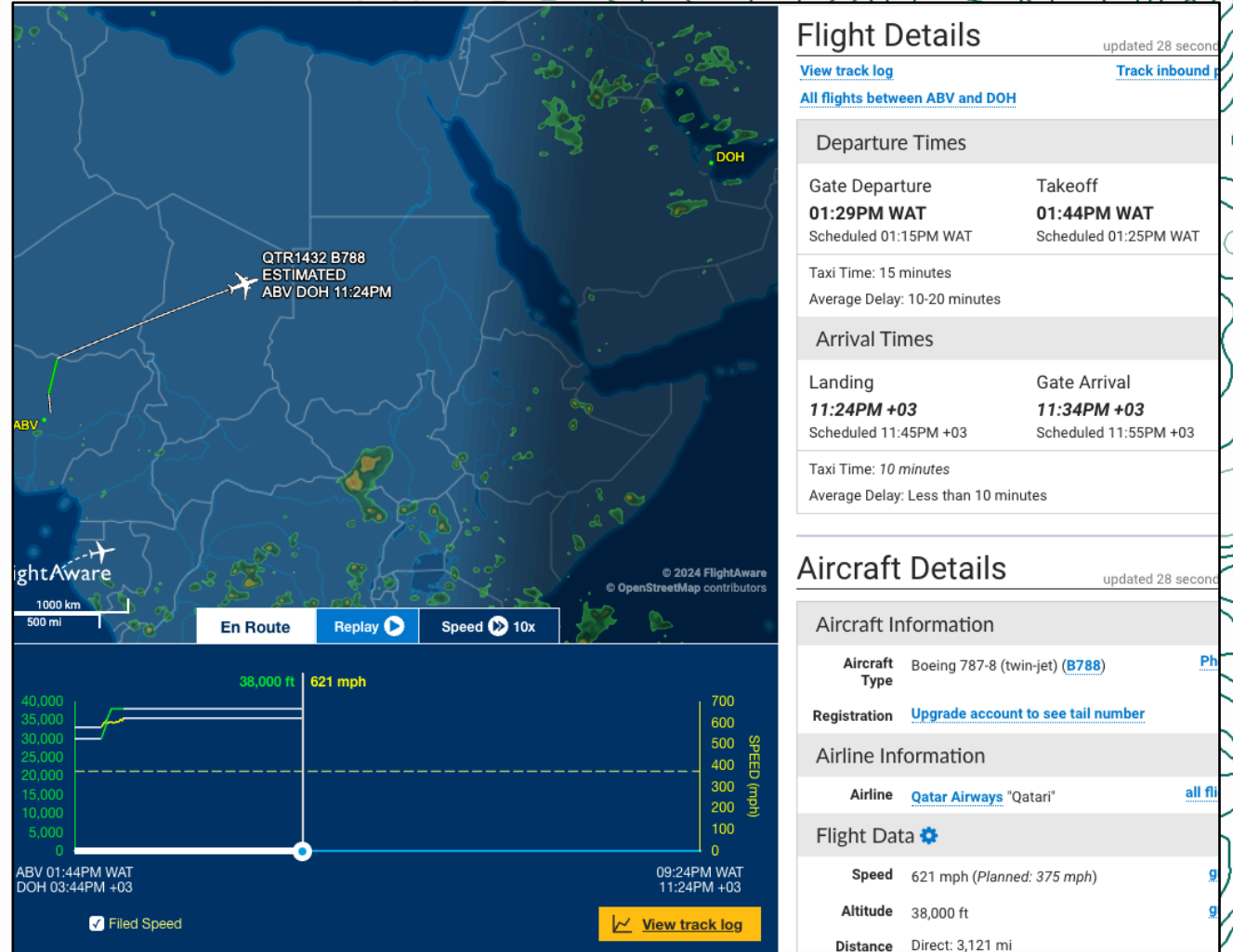
5h 2m remaining
2,062 mi to go



Tradecraft: Flight Details

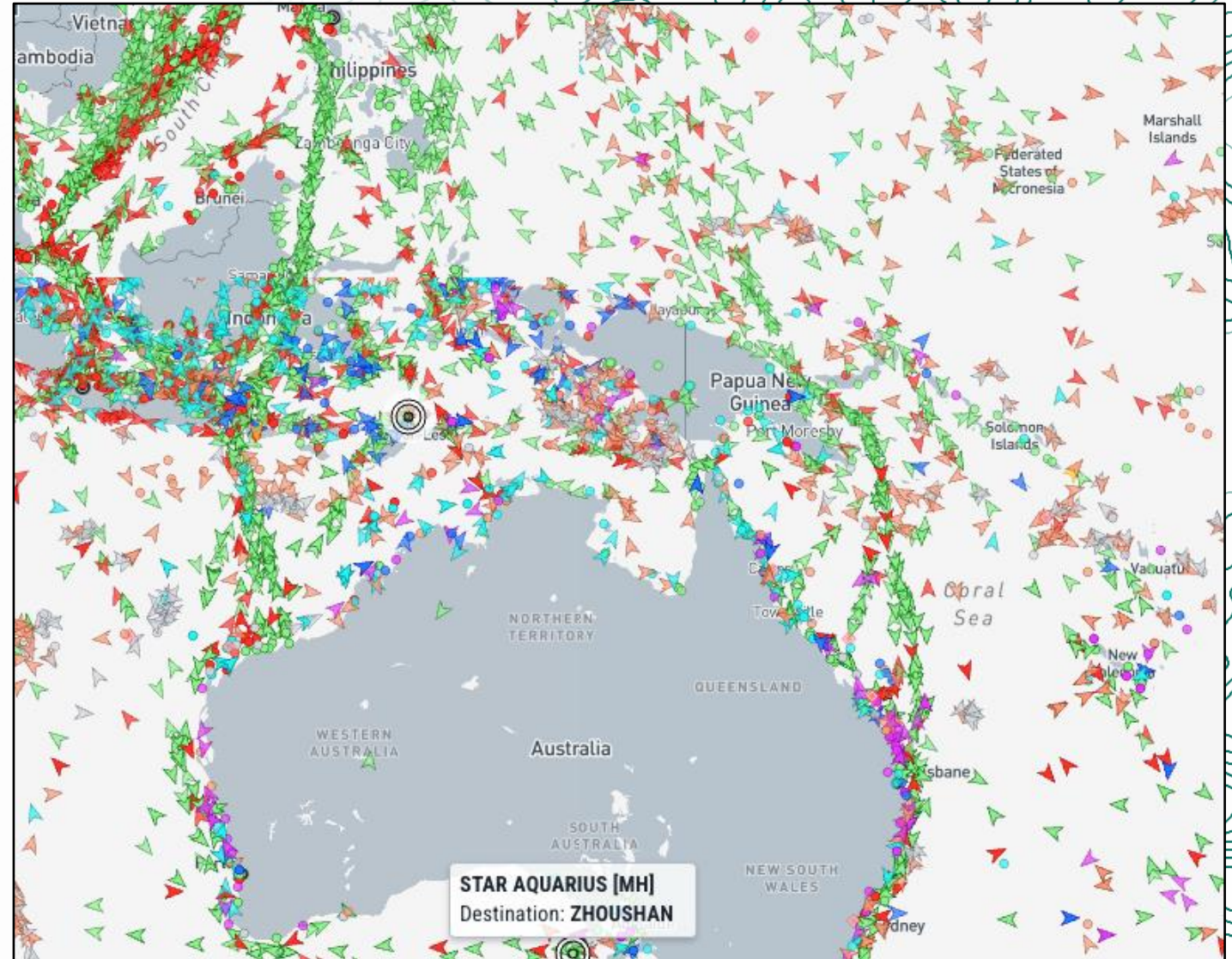
Display individual Flight details

- Airline flight number
- Schedule & on-time status
- Speed & elevation
- Plane details



Tradecraft: Marine Tracker

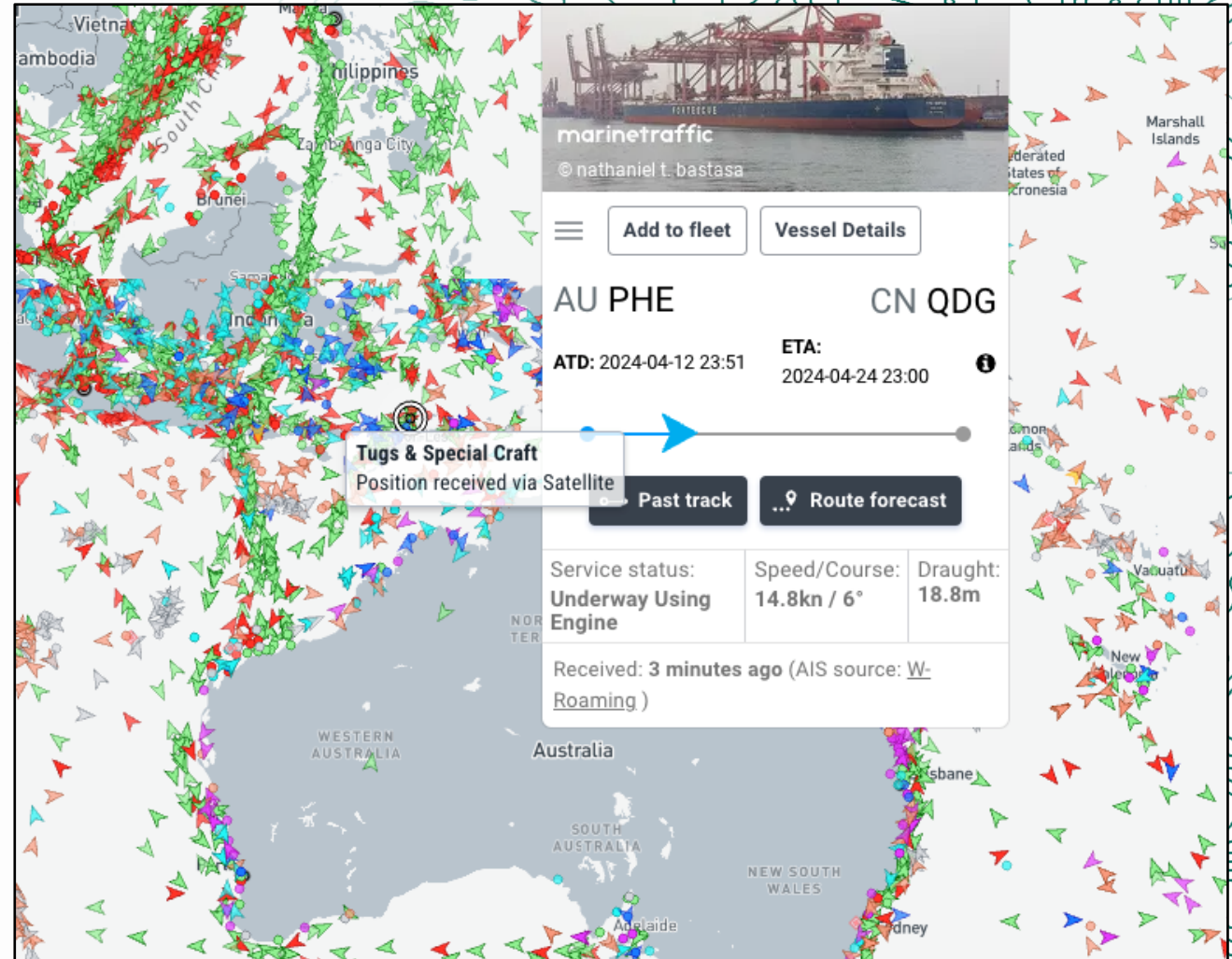
- ShipFinder
- MarineTraffic
- VesselFinder
- Ship Tracker
- ShipView



Tradecraft: Marine Tracker

Ship details

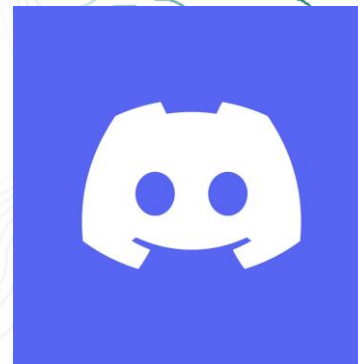
- Type of ship (cargo, fishing, personal)
- Departure & destination ports
- Speed & course



Tradecraft: Monitoring Public Forums

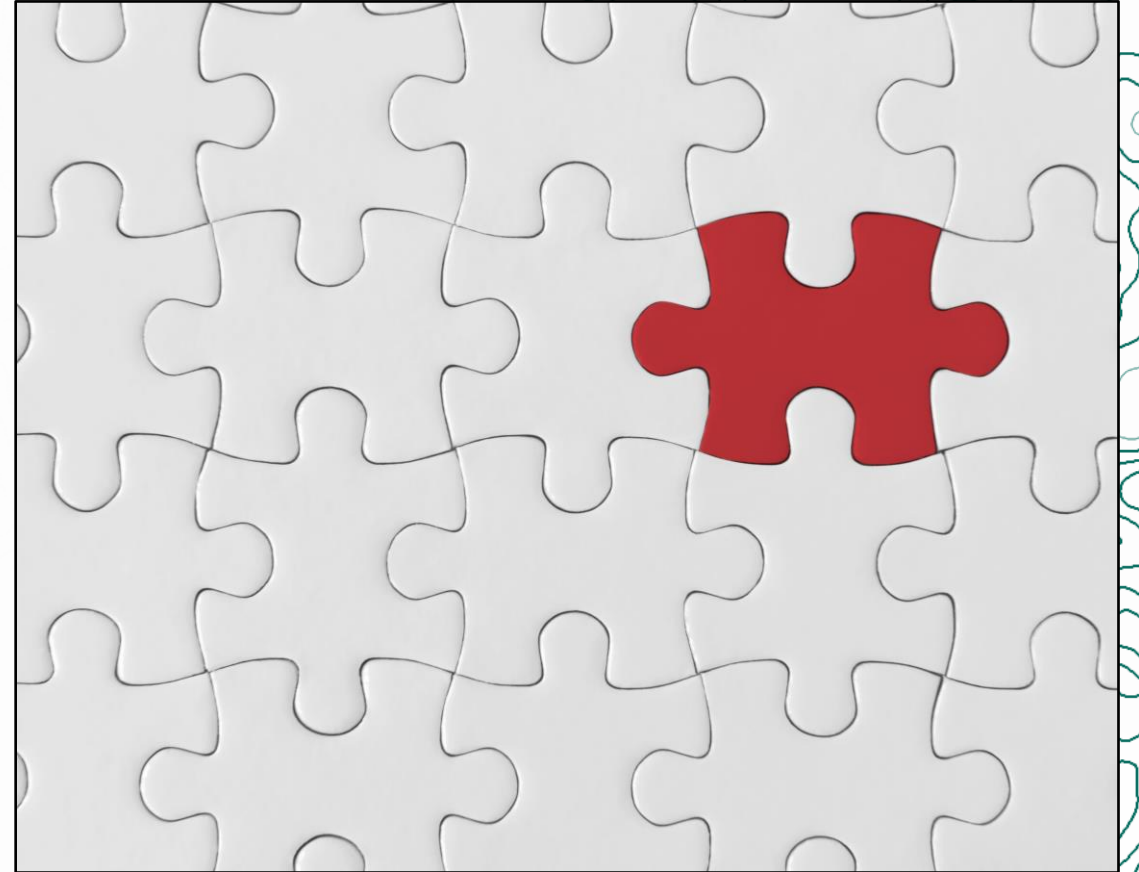
Employees, Customers, and Clients talk, and not just on Facebook. Having a collection plan for these sites would provide insights into those conversations.

- GlassDoor
- Reddit
- Discord
- Quora
- Industry Specific Forums



Information

Actionable insights, gathered during the investigation phase, which you can use to brief the decision maker.



A Watch function allows your organization to...



React faster



Avoid pitfalls



Gain foresight into industry changes

Support Your Whole Team

- Watch Center answers RFIs from every Company department
 - C-Suite
 - Corporate Communications
 - Finance
 - IT
 - Logistics / Distribution
 - Manufacturing / Professional Services
 - Marketing / Branding
 - R&D
 - Sales



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Support Your Whole Team

- Watch Center can advise on Company security policies
 - Counterintelligence
 - Security / Access Control practices
 - Operational Security & Situational Awareness training
 - Travel
 - Meeting / Conference read-ahead packages
 - Travel Safety / Security Reports
 - Executive Protection Reports



Watch Desk Operations Center

- 24/7 coverage may mean reviewing overnight developments
- Specific responsibilities avoids unnecessary overlap
- Structured to ensure universal coverage
- Information sharing system





AI for GSOC/Watch

- Social Media scraping results & sentiment analysis
- Processing overnight data analysis
- Monitoring physical security
- Monitoring supply chain movements
- Automated searching of company database(s), report repositories



From Unique to Universal

- Watch Center combines CI with Global Awareness
- Always an eye to the Big Picture
- Umbrella products
- Tailored products

- Reducing uncertainty for the Decision Maker



Cost Break Down

Tool	Cost
Meta Search Engines	Free
Google	Free
Social Media Platforms	Free
Authentic8 Silo	Negotiable
Babel Street	Negotiable
AirNav RadarBox	\$399
ShipXplorer	\$399
Total	Based on negotiated prices

Some other Reading

- “NSA's National Security Operations Center celebrates 50 years of 24/7 operations in service to the Nation”
 - National Security Agency Press Room, 21 Feb 2023. <https://www.nsa.gov/Press-Room/News-Highlights/Article/Article/3302922/nsas-national-security-operations-center-celebrates-50-years-of-247-operations/>
- FBI Strategic Information Operations Center
 - “FBI Global Command and Communications Center,” Federal Bureau of Investigation. Online at: <https://www.fbi.gov/about/leadership-and-structure/intelligence/sioc>
- Ohio State Highway Patrol (OSHP) “Hub”
 - John Born, Director, Ohio Department of Public Safety. “Integrated Intelligence for Public Safety,” The Police Chief, June 2015. Online at: <https://www.policechiefmagazine.org/integrated-intelligence-for-public-safety/>
- State of Indiana Emergency Operations Center (SEOC)
 - “About the State Emergency Operations Center,” Indiana Department of Homeland Security. <https://www.in.gov/dhs/emergency-management-and-preparedness/eoc-operations/>
- Florida State Watch Office
 - Florida Division of Emergency Management. <https://www.floridadisaster.org/dem/response/operations/state-watch-office/>
- “Coast guard’s marine watch desk reports sightings in real time to protect B.C. orcas”
 - *Canadian Press*, 14 Jan 2021. <https://kitchener.citynews.ca/2021/01/14/coast-guards-marine-watch-desk-reports-sightings-in-real-time-to-protect-bc-orcas-3262202/>



Some other Reading

- What is a security operations center (SOC)? [cyber]
 - Microsoft Security. Online at: <https://www.microsoft.com/en-us/security/business/security-101/what-is-a-security-operations-center-soc>
- What is a security operations center (SOC)? [cyber]
 - Mark Scapicchio, Amanda Downie, Matthew Finio. IBM, 15 Mar 2024. Online at: <https://www.ibm.com/topics/security-operations-center>
- “How to build a security operations center on a budget”
 - Dan Gundry. Security Magazine, 01 Apr 2022. Online at: <https://www.securitymagazine.com/articles/97337-how-to-build-a-security-operations-center-on-a-budget>
- “How Real-Time Location Intelligence is Changing Corporate Security”
 - Carl Walter and Eric Pollard. WhereNext Magazine, 11 Jan 2022. Online at: <https://www.esri.com/about/newsroom/publications/wherenext/new-corporate-security-techniques/>



Thank You!

Questions and Comments?

cirat@mercyhurst.edu



BUSINESS INTELLIGENCE AND INNOVATION LAB

SCIP INTELICON NASHVILLE 2024



Agenda

- Lab Purpose and Overview
- Lab Processes
 - Bottom Up
 - Top Down
- Tools
 - Rover
 - Recorded Future
- Product Examples
 - Risk Rating Matrix



BI² LAB

BUSINESS INTELLIGENCE &
INNOVATION LABORATORY

CREATED FOR THE PRIVATE SECTOR BY

SEC
SECURITY EXECUTIVE COUNCIL
A research and advisory firm


MERCYHURST
UNIVERSITY

**SECURITY
LEADERSHIP
RESEARCH
INSTITUTE**



BI² Lab: Operational Focus



The **Business Intelligence and Innovation Laboratory (BI²)** exists to advance further the understanding and use of open-source intelligence (OSINT) and business information analysis in the private sector, including its value, capabilities, and tools. It will provide security leaders with real-time and predictive information to help their business partners and executives make more informed business decisions.

- The lab's mission is to help build an understanding of the value of intelligence and information analysis for the private sector, similar to the capabilities available to the public sector.
- Because there is abundant information to track and analyze, it can be difficult for private-sector security practitioners to identify actionable information. The Lab will create and leverage tools that assist the private sector in identifying relevant information and allow businesses to draw actionable conclusions and make evidence-based risk decisions.

The goal of the Lab is to empower corporate security practitioners and their executives to ingest information more quickly by breaking it down to a manageable and actionable level—**without increasing their staff.**



Operations Process



Bottom-up Support

- Topics are developed by our BI2 analysts

Top-down Support

- Topics are developed by the SEC and supported by our BI2 analysts

Crisis Management

- We do have a crisis response function, in which case reports can be returned within 24-48 hours of receiving the request.



Bottom-Up



Process:

- The BI2 analysts compile a weekly list of geopolitical events and risk and security issues that affect the private sector industry.
- A council of SEC and MU subject matter experts review the topics and then provide direction and feedback on which topics the lab will proceed with building products.
- Products range from **Executive Summaries** to a variety of **Intelligence Reports** to **Executive-level Briefings** and **Special Products**.



Top-Down Support



Process:

- The SEC subject matter experts and Mercyhurst University administrators provide directives for production.
- BI2 Members/Clients request information regarding global or domestic risk and security issues affecting private-sector industries.
- Lab outputs/results will help corporate security practitioners effectively communicate findings to executive leadership, helping them make better decisions.
- BI2 creates innovative processes, strategies, solutions, and tools that answer the challenges of new and changing operational environments.



Crisis Reports

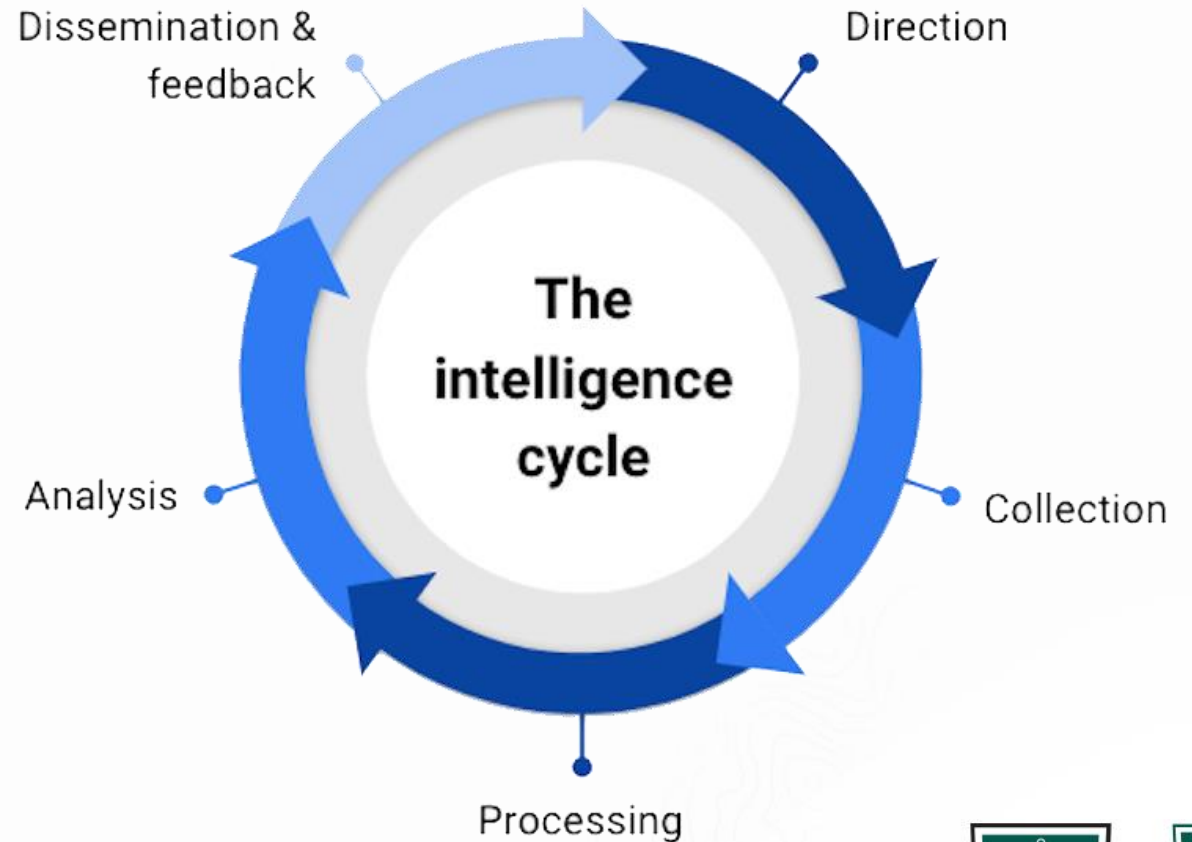
Process: Client Driven Needs

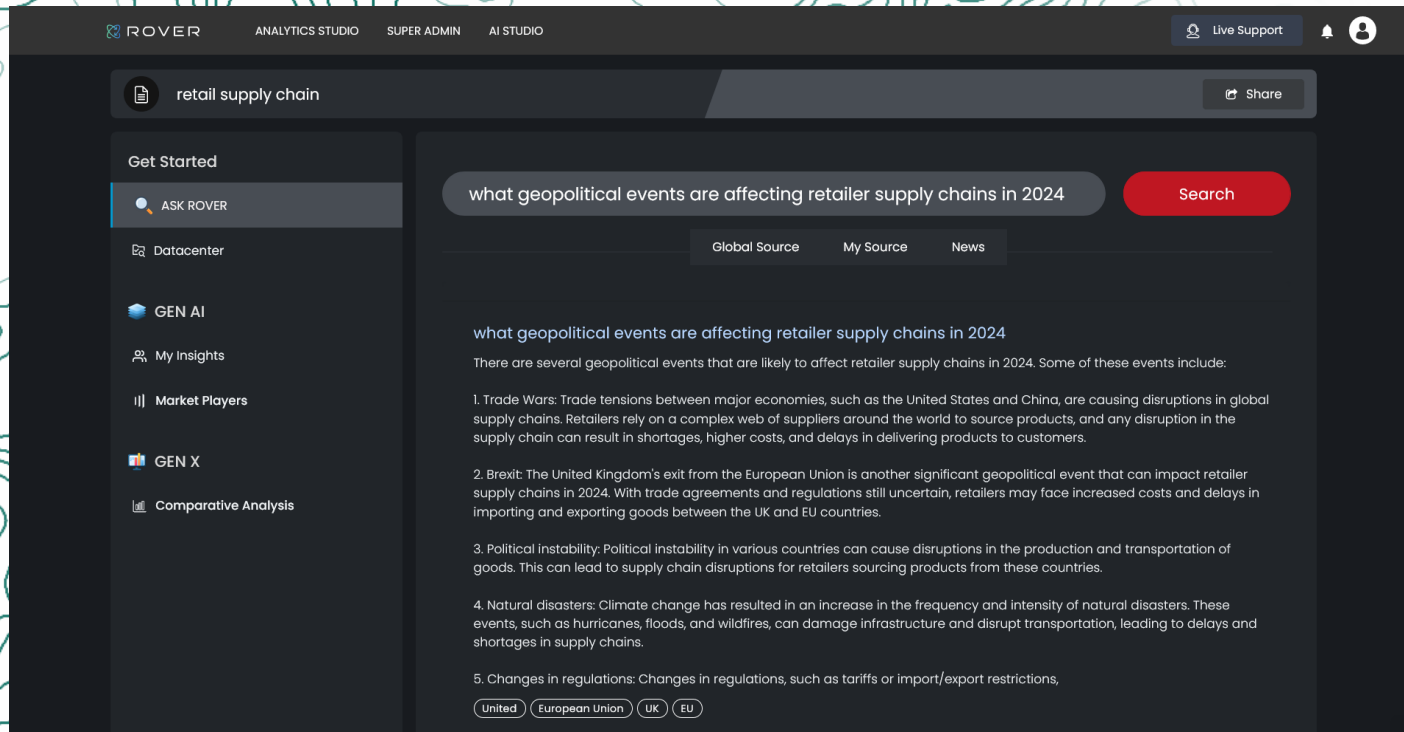
- The BI2 has the capability and processes for executing immediate crisis action support without disrupting status quo operations.
- SEC, MU Administrators, and clients can request, approved by CIRAT/Lab Directors
- When a client needs immediate action, the BI2 lab can return a full report within 24 hours.
- More concise and shorter, yet relevant and timely, reporting products.
- Prioritization of tools, databases, and production timelines are key (SOP dictates).



Intelligence Cycle

1. Topic decision/notification
2. Rover
3. Recorded Future
4. OSINT
5. Analysis/Writing
6. Editing
7. Dissemination
 - Risk Rating
8. Feedback





Rover AI

- Our BI² lab has been instrumental in developing the use of Generative AI processes in supporting intelligence analysis and processes regarding competitive business intelligence and risk and security threat modeling.
- The lab specifically uses it for supply chain analysis, developing lists of indications and warnings affecting global supply chain operations.





retail supply chain

Share

Get Started

ASK ROVER

Datacenter

GEN AI

My Insights

Market Players

GEN X

Comparative Analysis

what geopolitical events are affecting retailer supply chains in 2024

Search

Global Source

My Source

News

what geopolitical events are affecting retailer supply chains in 2024

There are several geopolitical events that are likely to affect retailer supply chains in 2024. Some of these events include:

- 1. Trade Wars:** Trade tensions between major economies, such as the United States and China, are causing disruptions in global supply chains. Retailers rely on a complex web of suppliers around the world to source products, and any disruption in the supply chain can result in shortages, higher costs, and delays in delivering products to customers.
- 2. Brexit:** The United Kingdom's exit from the European Union is another significant geopolitical event that can impact retailer supply chains in 2024. With trade agreements and regulations still uncertain, retailers may face increased costs and delays in importing and exporting goods between the UK and EU countries.
- 3. Political instability:** Political instability in various countries can cause disruptions in the production and transportation of goods. This can lead to supply chain disruptions for retailers sourcing products from these countries.
- 4. Natural disasters:** Climate change has resulted in an increase in the frequency and intensity of natural disasters. These events, such as hurricanes, floods, and wildfires, can damage infrastructure and disrupt transportation, leading to delays and shortages in supply chains.
- 5. Changes in regulations:** Changes in regulations, such as tariffs or import/export restrictions,

United

European Union

UK

EU



Processing & Analysis – Rover AI

- Supply chain analysis use
- The key with generative AI being the analyst's ability to ask the correct questions to the AI.
- The goal of this tool being to streamline our analyst's work flows and speed of production.
- Beginning of the intelligence Cycle



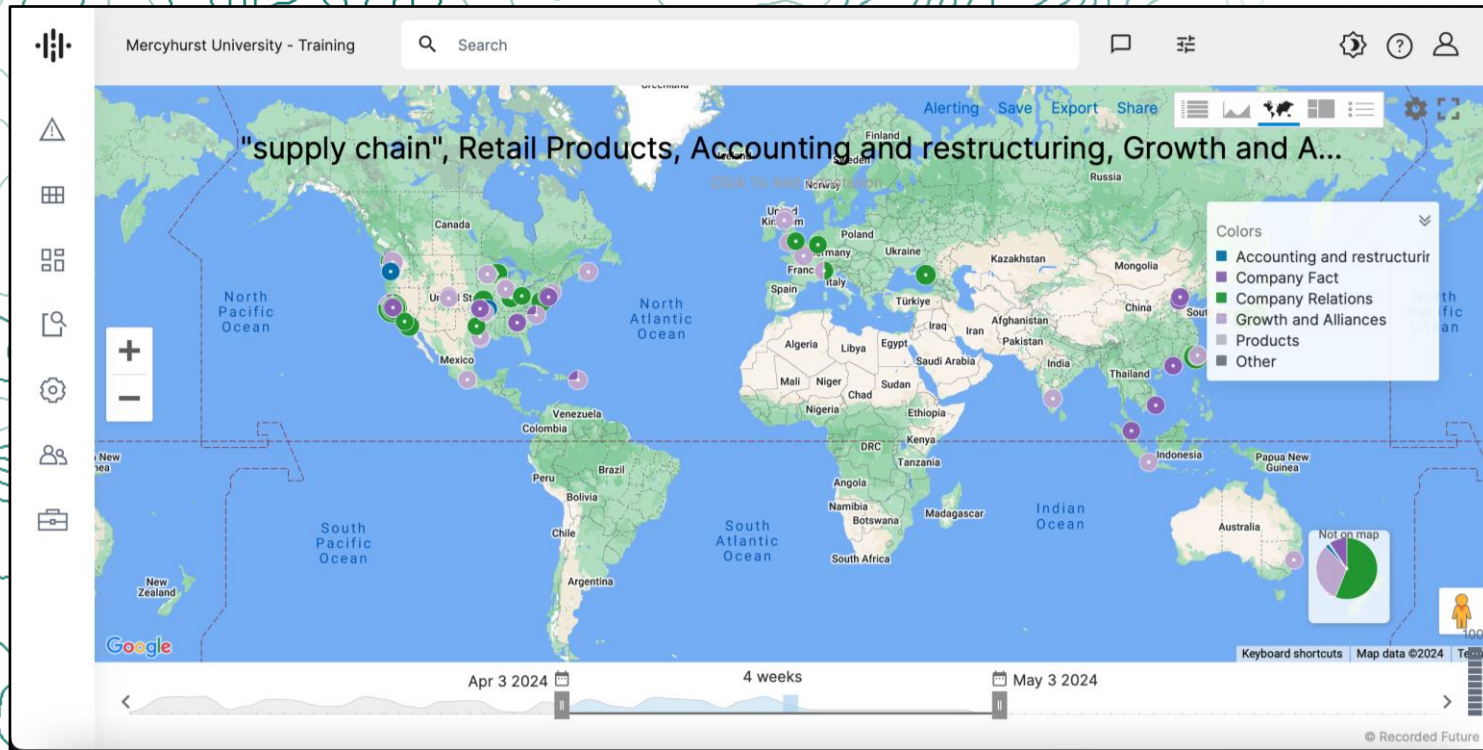
Processing & Analysis



- Collaborative Culture
- Weekly sync meetings
 - Questions about methodology
 - Creative solutions
 - Review other analyst products and analysis
- Analysts work independently or in small teams
 - Create products and briefing material



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Recorded Future

- Recorded Future is an intelligence security database that can be used for collection on recent events
- The BI2 lab uses Recorded Future as one of their tools for event awareness.
- Different Functions for users to evaluate the impact of events.





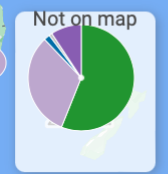
"supply chain", Retail Products, Accounting and restructuring, Growth and A...

Click To Add Location



Colors

- Accounting and restructuring
- Company Fact
- Company Relations
- Growth and Alliances
- Products
- Other



Apr 3 2024 4 weeks May 3 2024

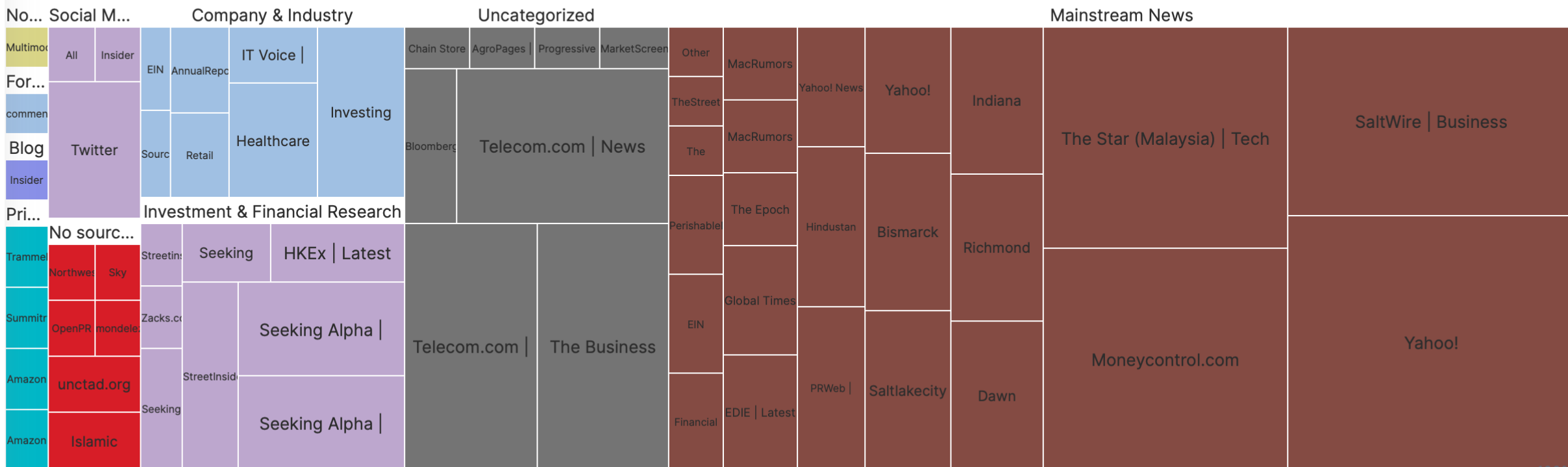


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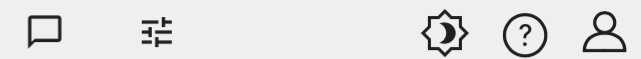
"supply chain", Retail Products, Accounting and restructuring, Growth and A...

Click To Add Annotation





Search



Alerting Save Export Share



"supply chain", Retail Products, Accounting and restructuring, Growth and A...

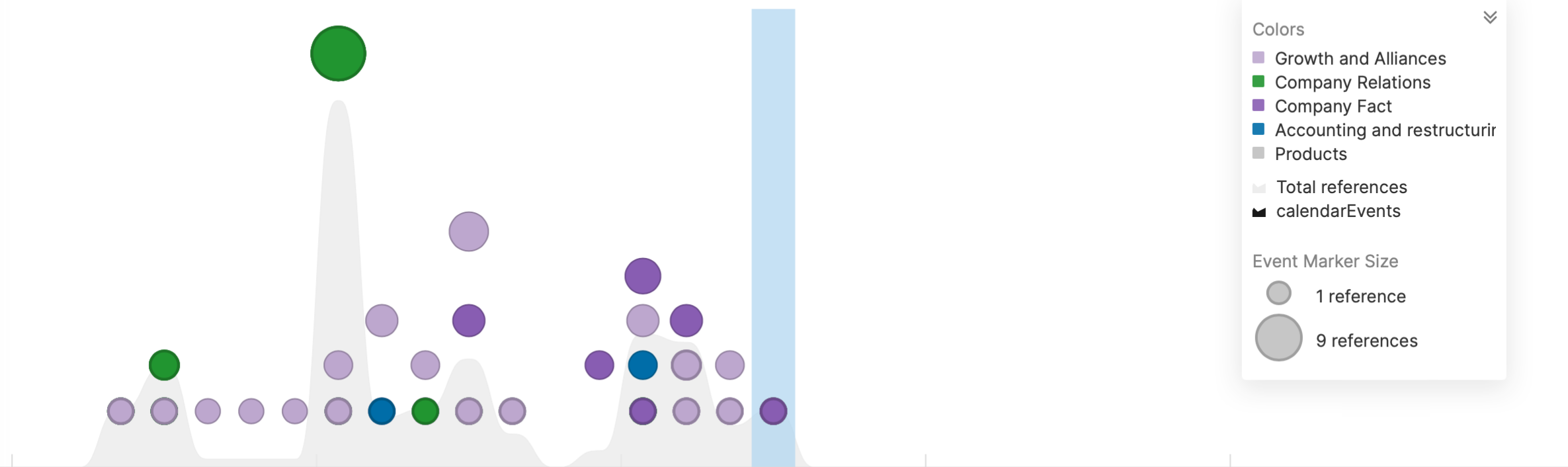
Click To Add Annotation

Colors

- Growth and Alliances
- Company Relations
- Company Fact
- Accounting and restructurir
- Products
- Total references
- calendarEvents

Event Marker Size

- 1 reference
- 9 references



01 Apr 2024 08 15 22 29 100%

< Apr 3 2024 4 weeks May 3 2024 >



Production

- Written Products
 - SFARs
 - LFARs
 - Industry Intelligence Bulletins
 - Executive Summaries
- Briefings
 - PowerPoint Presentation to an audience of the clients choosing
- Risk Rating Matrix

Executive Summary

On 5 February 2024, strikes led by dissatisfied truck drivers and a series of trucking organizations erupted on over 13 of Mexico's major roadways. Demands for road safety, tow truck regulations, stopped abuses and extortions, and the return of federal highways were proposed to the government by members of the strike. If demands are not met, strikes will likely continue and spread in the coming weeks.

Supply chain effects will likely be felt by many industries in the areas. Analysts recommend that companies turn to other forms of freight transportation, such as planes, trains, and boats.

Rails: Rails act as the cheapest of the three options and also provide a high carrying capacity; however, they also often get stopped at borders for checks, which would likely cause further shipping delays.

Ship: Ships offer a large carrying capacity with limited rules and regulations regarding the size and materials of freight; however, they have a significantly slower transit time and would likely cause a delay in shipping as companies would still need to transport products to coasts.

Plane: Planes offer the fastest shipping method of the three; however, they also have the lowest carrying capacity and are significantly impacted by inclement weather. They also are the most expensive of the three options, with shipping costs calculated by the



Risk Rating

The BI2 has built an internal risk rating chart that supports their reports and decision-making processes.

This was created specifically by the BI2 to have a lab-wide standard for rating the likelihood of events.

Risk rating is built to look at the issue from a CSO perspective.

Criticality

10	1	2	3	4	5	6	7	8	9	10
9	1	2	3	4	5	6	7	8	9	9
8	1	2	3	4	5	6	7	8	8	8
7	1	2	3	4	5	6	7	7	7	7
6	1	2	3	4	5	6	6	6	6	6
5	1	2	3	4	5	5	5	5	5	5
4	1	2	3	4	4	4	4	4	4	4
3	1	2	3	3	3	3	3	3	3	3
2	1	2	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	1	1	1
	1	2	3	4	5	6	7	8	9	10

Probability



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Risk Rating Cont.

Example: Due to the Israel and Hamas conflict two Israeli ports, Ashdod and Ashkelon, are at risk of closure. The port of Ashdod is facing a likely closure in coming weeks and the port of Ashkelon has already announced a closure for the foreseeable future. The closure of said ports would cause a negative effect on not only Israel's economy, but also the economy of Germany, India, the Netherlands, Switzerland, China, and the United States, their biggest trade partners.

The supply chain also faces disruptions as backups at port and a shortage of truck drivers lead to an overflow of products sitting in port. This is likely to affect multiple sectors including oil and petroleum supply, bromine and potash, fertilizer, technology, pharmaceuticals, and textiles.

Criticality

10	1	2	3	4	5	6	7	8	9	10
9	1	2	3	4	5	6	7	8	9	9
8	1	2	3	4	5	6	7	8	8	8
7	1	2	3	4	5	6	7	7	7	7
6	1	2	3	4	5	6	6	6	6	6
5	1	2	3	4	5	5	5	5	5	5
4	1	2	3	4	4	4	4	4	4	4
3	1	2	3	3	3	3	3	3	3	3
2	1	2	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	1	1	1
	1	2	3	4	5	6	7	8	9	10

Probability



Cost Break Down

Tool	Cost
Meta Search Engines	Free
Recorded Future	Negotiable
Babel Street	Negotiable
Rover	Not available for public use yet
Total	Based on negotiated prices



Final Thoughts

- Actionable intelligence achievable with minimal tools and analysts.
 - Proper lab structure
 - High Communication between analysts and decision-makers is necessary for this to be successful
- What does the BI2 provide its decision-makers?



Thank You!

Questions and Comments?

cirat@mercyhurst.edu



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INNOVATION ENTENTE LAB

SCIP INTELICON NASHVILLE 2024



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Agenda

- What is the NWPA Innovation Beehive Network
- Purpose
- Services
- Collection Methods
 - Meta Search Engines
 - Demographic Databases
 - Patent Databases
 - ZoomInfo
 - Social Media Analysis
 - SEO Analysis



**MERCYHURST
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The Innovation
Entente Lab



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NWPA Beehive Network

PRIMARY MISSION

- Reduce and eliminate barriers to regional innovation and business growth.
- Provide unique, high-impact learning and career-development experiences for our students
- Amplify similar efforts of other organizations



ALLEGHENY COLLEGE

The Allegheny Center for Sustainable Development



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The Innovation Entente Lab



ERIE COUNTY PUBLIC LIBRARY

The Idea Lab



PENN STATE BEHREND

The Meehl Innovation Commons



GANNON UNIVERSITY

The Center for Business Ingenuity



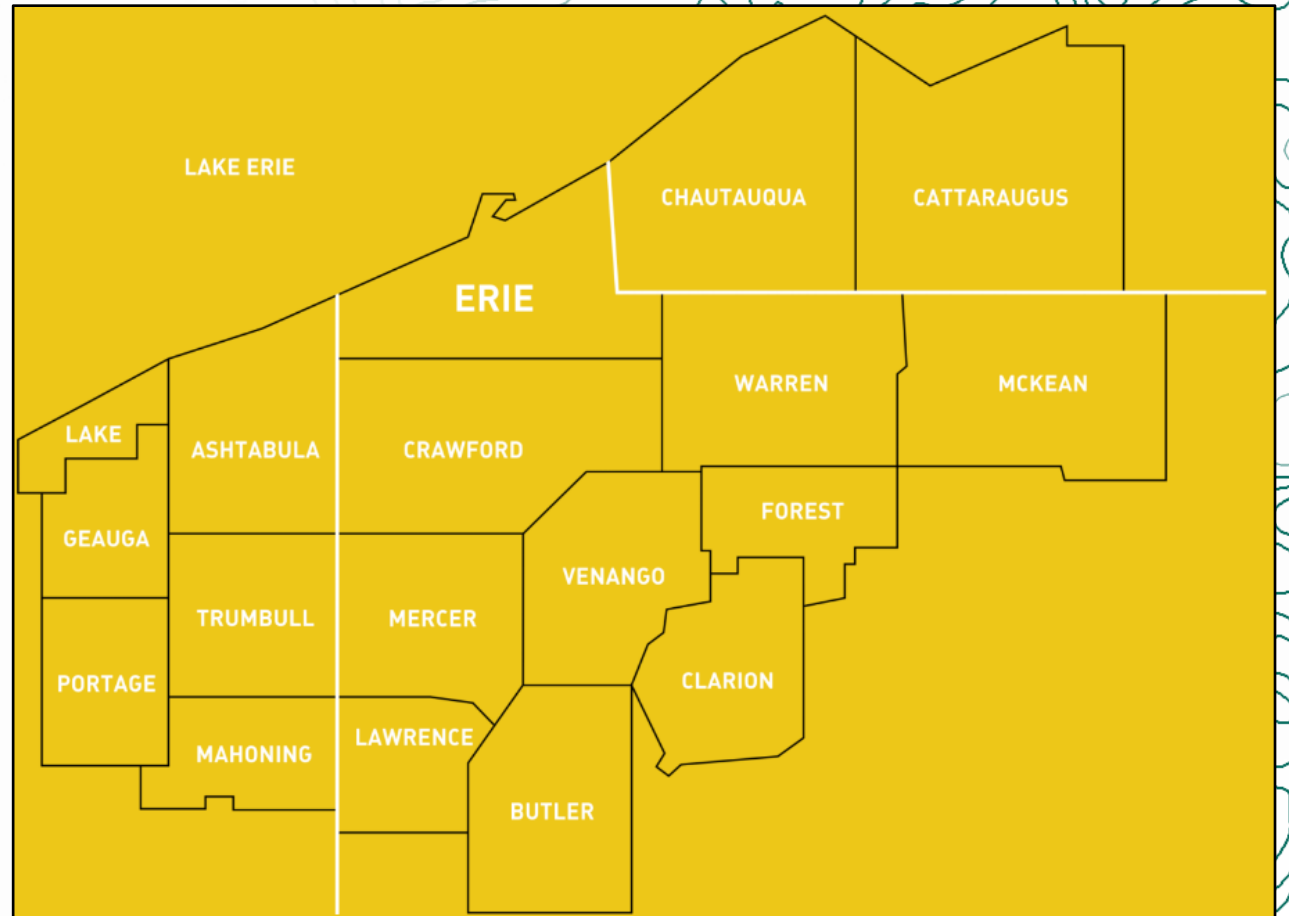
PENNWEST EDINBORO

The Center for Branding and Strategic Communication



NWPA Beehive Network

- Small Business and Entrepreneurs
- 18 Counties
 - Eastern Ohio
 - Southern New York State
 - Northwest Pennsylvania



Innovation Entente Lab



- Create an area for students to gain real-world experience in competitive business intelligence
- Give back to the greater Northwest Pennsylvania community
- Develop and support key components of the region's economy and entrepreneur ecosystem
- Grant funded
- Services provided ~\$100,000

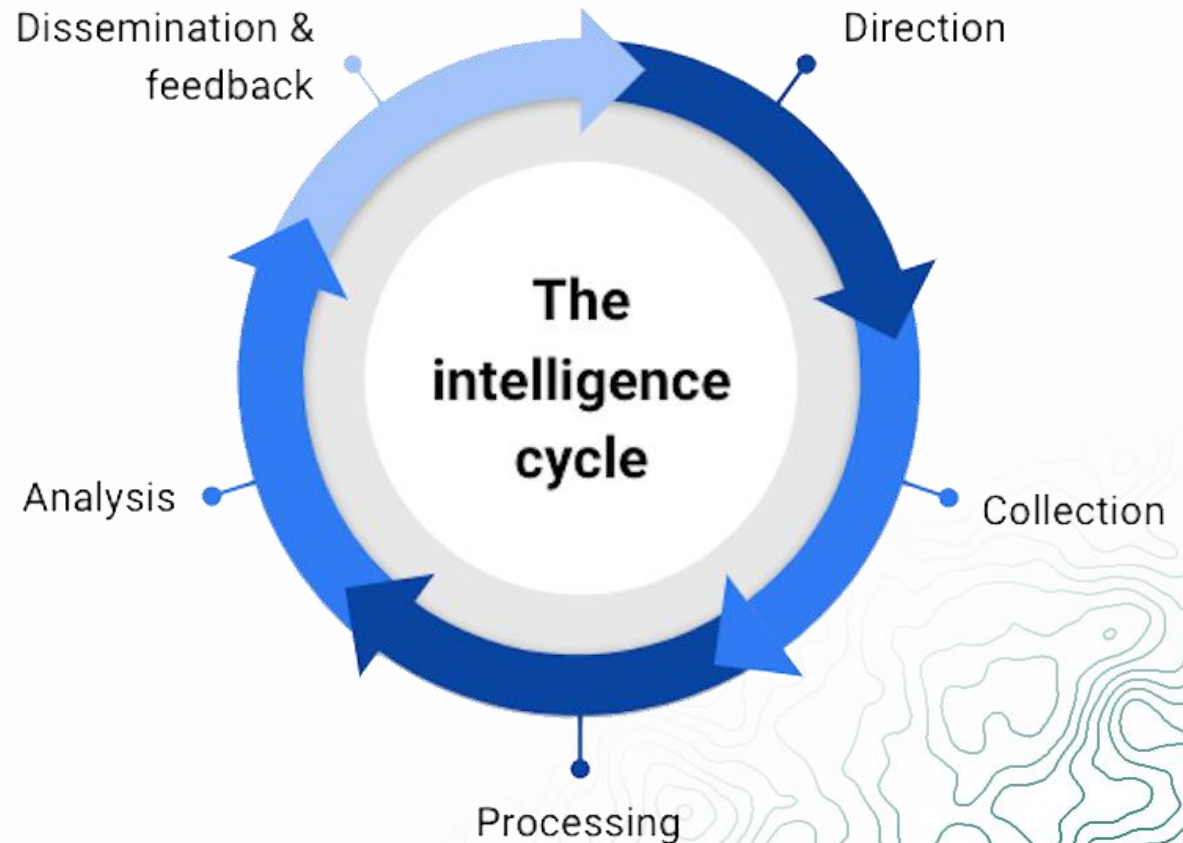


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Innovation Entente Lab



- Competitor Analysis
- Market Analysis Data
- Intellectual Property Information
- Funding Opportunities
- Social Media Market Analysis
- Industry best practices and pitfalls to avoid
- Data collection and manipulation
- Cybersecurity



Collection



- Open-Source Intelligence (OSINT)
 - Google Dorking
 - Demographic Research
 - Meta Search Engines (Carot2, DuckDuckGo, Qwant)
 - Patent Database Search (WIPO, Google Patent Database)
- ZoomInfo
- Social media analysis
 - Social Blade
 - Going to accounts and collecting information on posts
- SEO Analysis
 - Seobility
 - In-house scripts





Meta Search Engines

- Allows for analysts to filter through large amounts of search results based on clusters
- Help identify trends
- Allows for visualization of local data sets
- Social media content analysis



Meta Search Engines



Play Port Arcade and Family Fun Center¹

Located in Erie, Pennsylvania, Play Port Arcade and Family Fun Center is an activity center that promotes a specific 80's and 90's while providing consumers with a unique experience that includes a wide variety of futuristic games with a vintage theme. This company prioritizes the consumer experience and provides multiple options for activities – to ensure a fun and exclusive time, giving local Erie artists a chance to showcase their talent by designing visual effects.

Services and Pricing

One of the key components of Play Port Arcade and Family Fun Center is how many options they offer customers. While providing a variety of classic games such as mini-golf and laser tag, it differentiates itself by giving a futuristic setting to each game. Some of these options include:

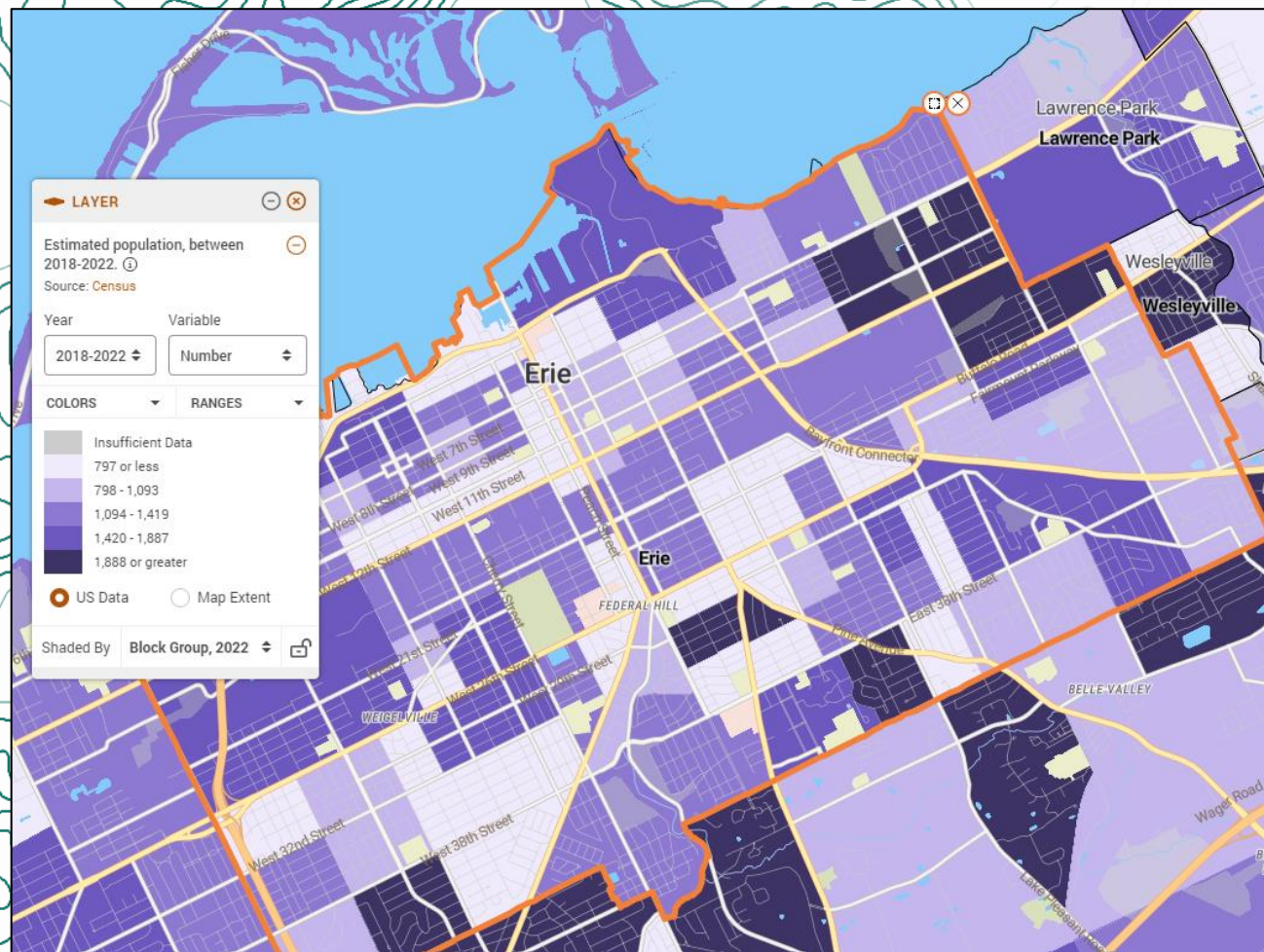
- Glow Golf & Pool²
- Laser Maze³
- Laser Tag Arena⁴
- Virtual Reality⁵

Play Port Arcade does not charge for the activity.⁶ Instead, they offer a “Free Play” system in which each participant pays a fee and is allowed to play any game desired.⁷ Prices offered are as follows, a regular admission, which allows free play of video games, and 1 round of glow golf is \$10.99.⁸ The family saver includes 4fourregular admission tickets along with one large topping pizza and four drinks for \$55.55.⁹ Customers can also purchase a round of laser tag at \$6 per player/game.¹⁰ Lastly, a offered “VR 4-PACK” is an additional purchase that gifts the customer double the playtime and four 10-minute sessions with the virtual reality part of the experience.¹¹

Swot Analysis

Strengths <ul style="list-style-type: none">• Website Design• Social Media Content• Customer Communication	Weaknesses <ul style="list-style-type: none">• SM Platform Diversity• Website Pricing Options• Weekend Revenue
Opportunities <ul style="list-style-type: none">• More Social Media Platforms• More Food/Drink Promotion• Partnerships	Threats <ul style="list-style-type: none">• Lack of Relaxed Game Options• Competitors SM presence• Low Employee count





Demographic Data

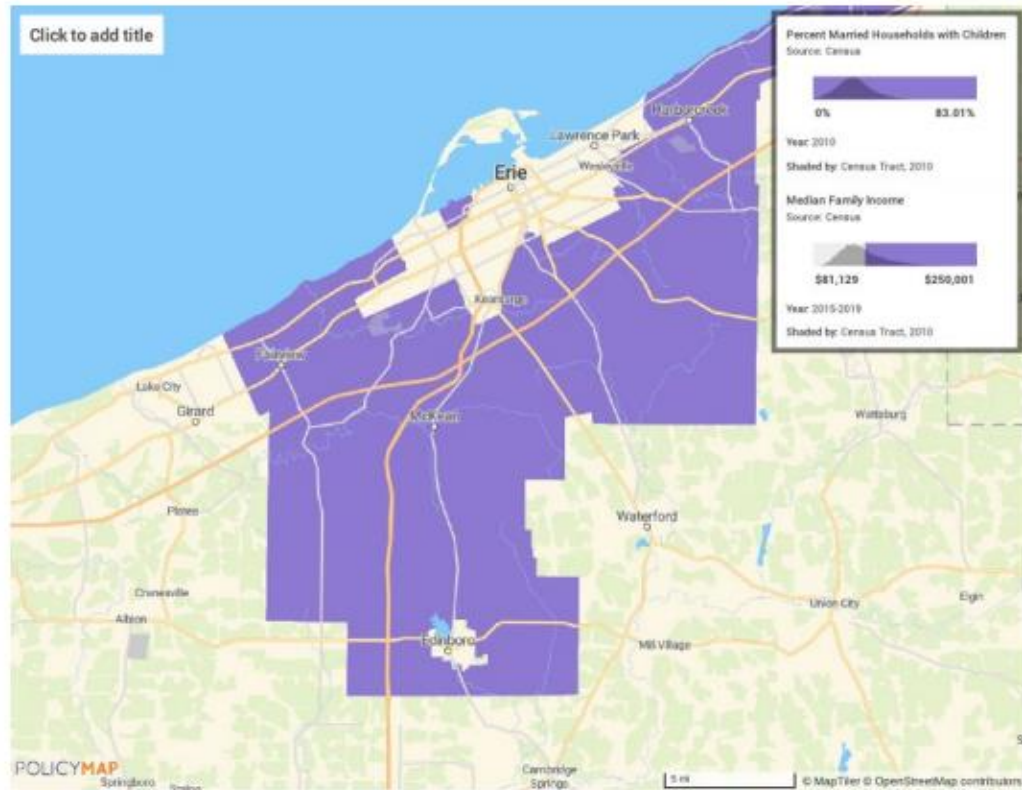
- Polycymaps, Google Earth Pro, US census Data
- Allows for visualization of various data points
 - Demographics
 - Income
 - Education
 - Housing

POLICYMAP

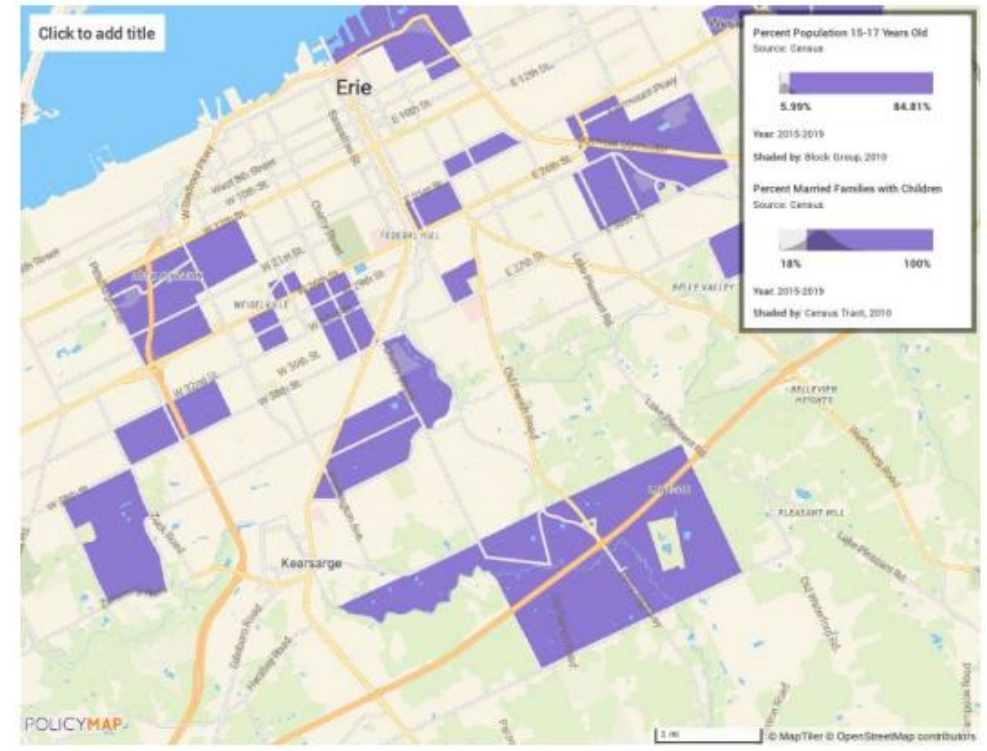


Demographic Data

The 2nd map, below this, shows in the purple areas with the ideal family that would be interested in an activity like mini golf. As seen below, the southeast, McKean area is a highly populated area according to the demographic of a married household with children and an income higher than \$81,000.



The target market for laser tag is shown below. The main demographic Adventures Erie would be most suited to strive for in order to create profit would be a 15 year old male, which is the average customer of a typical laser tag establishment (60% of customers) with a stable home in which both parents are present and willing to help transport the customer to the business.^{xxix} As seen, the majority of this demographic is located in Langdon and the Federal Hill-Kearsarge area.





WIPO Help English IP Portal login

Home > PATENTSCOPE > Search

Feedback Search Browse Tools Settings

FP:(endpoint management software)

140 results Offices all Languages en Stemming true Single Family Member false Include NPL false

Sort: Relevance Per page: 10 View: All 1/14 Machine translation

- 20200177554** CENTRALIZED MANAGEMENT OF REMOTE ENDPOINT DEVICES US - 04.06.2020
Int.Class H04L 29/06 Appl.No 16785218 Applicant Amazon Technologies, Inc. Inventor Scott Moore
Methods, systems, and computer-readable media for centralized management of remote endpoint devices are disclosed. Instances of agent software are installed on endpoint devices that are external to a multi-tenant provider network. The agent software is communicatively coupled to a centralized management service of the multi-tenant provider network. A software package is selected from a marketplace service of the multi-tenant provider network. The marketplace service comprises product offerings for a plurality of software packages. The centralized management service sends information indicative of a configuration associated with the software package to the agent software of one or more of the endpoint devices that are associated with the software package. The centralized management service receives, from the agent software, an indication that the configuration has been deployed on the one or more of the endpoint devices.
- 10560432** CENTRALIZED MANAGEMENT OF REMOTE ENDPOINT DEVICES US - 11.02.2020
Int.Class H04L 29/06 Appl.No 15618576 Applicant Amazon Technologies, Inc. Inventor Scott Moore
Methods, systems, and computer-readable media for centralized management of remote endpoint devices are disclosed. Instances of agent software are installed on endpoint devices that are external to a multi-tenant provider network. The agent software is communicatively coupled to a centralized management service of the multi-tenant provider network. A software package is selected from a marketplace service of the multi-tenant provider network. The marketplace service comprises product offerings for a plurality of software packages. The centralized management service sends information indicative of a configuration associated with the software package to the agent software of one or more of the endpoint devices that are associated with the software package. The centralized management service receives, from the agent software, an indication that the configuration has been deployed on the one or more of the endpoint devices.

Patent Databases

- WIPO, Google Patent Database, USPTO
- Search for similar products and ideas
- Identify key differences
- Identify competitors
- Verify clients unique ideas

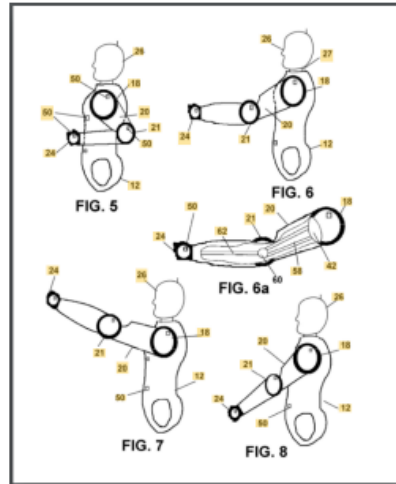
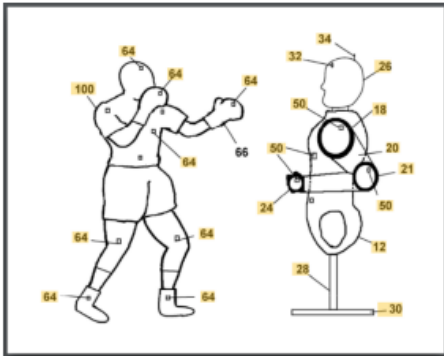


Patent Research

UFP Similar Patents

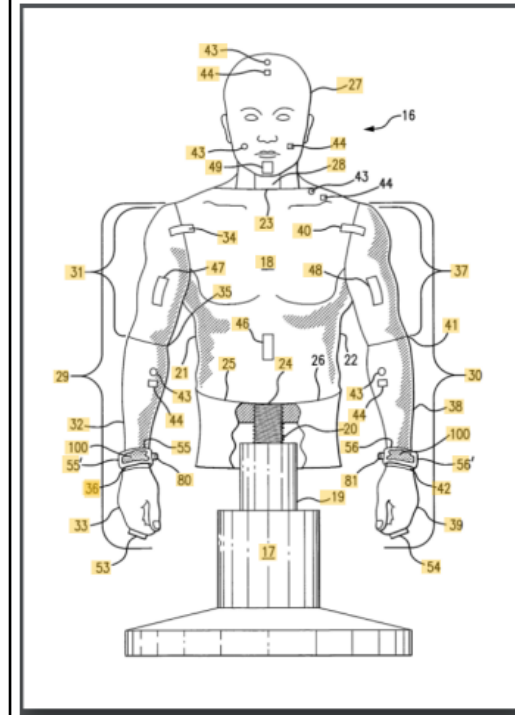
Robotic Sparring Partner (US20140378281A1) – this device is provided having an upright torso section operatively engaged with arms, legs, and a head. Both the arms and legs are formed of two sections and engaged to the torso at the respective shoulder and hip positions. Computer-controlled electric motors at points similar to human joints provide rotation of the joined leg and arm sections in two planes. A computer controller is configured with software to elicit human-like offensive and counter-movements of the sparring device's limbs in response to or an offensive movement toward a human sparring partner.⁶⁸

The patent was created by its inventor Joseph Mazi and was initially filed in June 2013 and was published in December 2014. The patent's current status is abandoned, but no reason for abandonment is provided. The full list of claims, description, and background is available on the patent page.⁶⁹



Training Device (US8777818B1) - A training device for use in the various martial arts and other competitive sports that responds to a person using the training device. A torso sits on a base, a head is attached to the torso, arms are connected to the torso, and legs may be attached to the torso. Sensors on the torso, head, arms, and legs communicate to move the head, torso, arms, and legs. A means for controlling the movement of the components can be programmed to move the elements in response to, or independently of, the actions of a user of the device.⁷⁸

The inventor of this device was Larry E. Tate Jr., and the application was initially filed in 2010 and was granted and published in 2014. The patent's expected expiration is September 2032; however, the patent's current status is expired due to fee-related issues. The patent has 21 claims associated with the invention.⁷⁹



ZoomInfo Sales Search for companies, contacts, industries, etc. Advanced Search Lists More v 0% [bell icon]

< Homepage / Riley Polkowski Suggest Update Tag Export

Riley Polkowski
Graduate Assistant
Mercyhurst University [in] [f] [x] Employees 201 - 500
Website www.mercyhurst.edu Revenue \$63.9 Million
Industry Colleges & Universities, Education

Contact Profile Overview Employees Tabs

Contact Details

Emails
rpolko50@lakers.mercyhurst.edu (B)

Phone numbers
(814) 824-2000 (HQ)
(262) 225-1102 (M)

Location
Local 501 E 38th St, Erie, Pennsylvania, 16546, United States
HQ 501 E 38th St, Erie, Pennsylvania, 16546, United States
Notice Provided Date: November 15, 2020 ⓘ

Employment History

- Current Graduate Assistant
Mercyhurst University
- Former Lead Intelligence Analyst
Mercyhurst University

About
Riley Polkowski is a Graduate Assistant at Mercyhurst University based in Erie, Pennsylvania. Previously, Riley was a Lead Intelligence Analyst at Mercyhurst University.

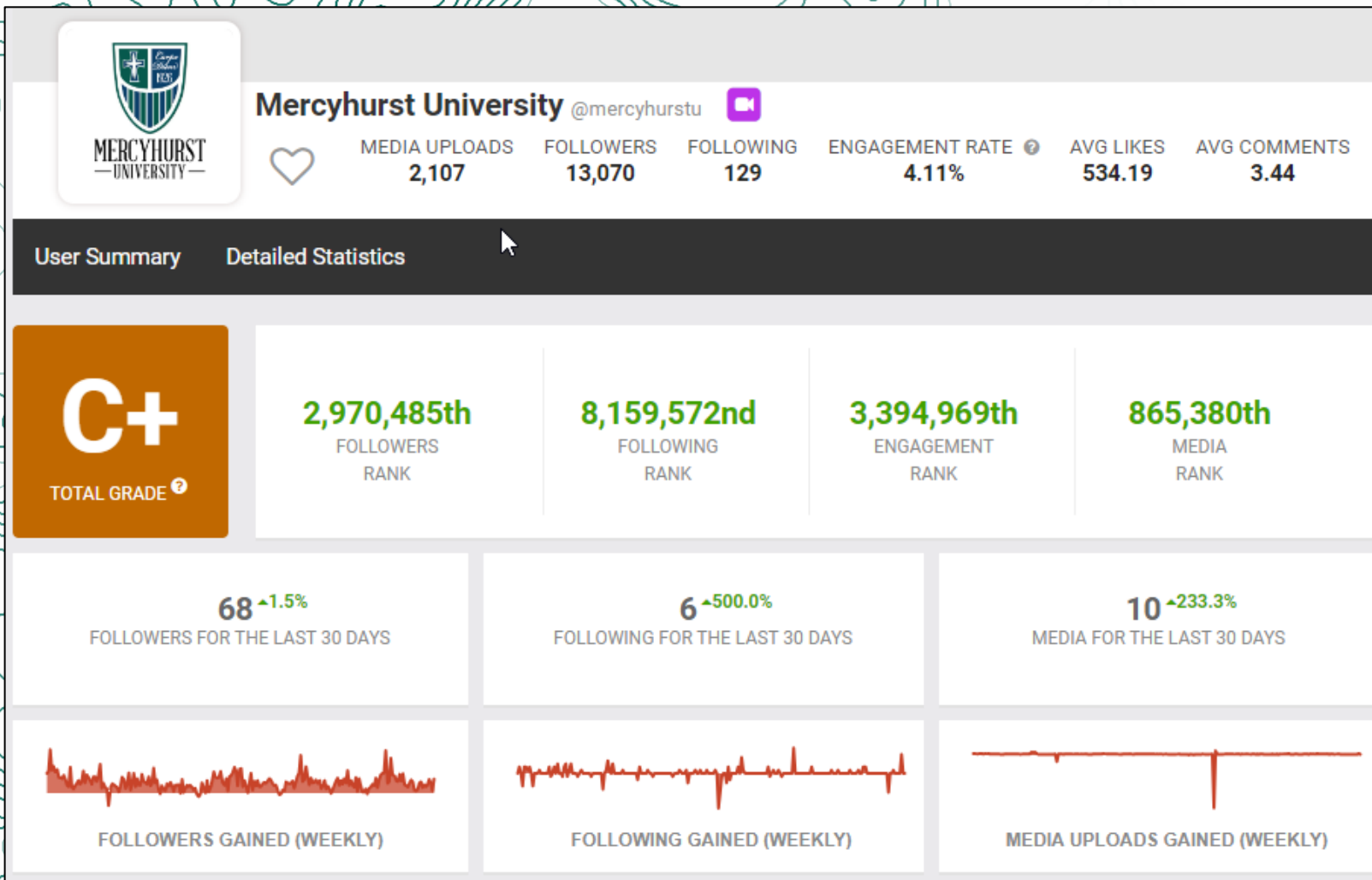
Tags
[Add tag](#)



ZoomInfo

- Gain insights into corporate structure
- Gain contact information on potential competitors, clients, and investors
- Gather information on employees





Socialblade







- Gather information on social media accounts
- Instagram, YouTube, TikTok, Twitch, Facebook,
- Identify and track high-performing accounts and trends
- Monitor client social media progress



Social Media Analysis

Social Media Analysis

Competitor Social Media Overview

Competitors	Twitter 	Instagram 	YouTube 	TikTok 	LinkedIn 	Facebook 
Play Port Arcade and Family Fun Center						x
Stumpy's Hatchet House	x	x	x	x	x	x
Buffalo Battleground	x	x	x			x
Erie Axe Throwing		x	x			x
Laser Storm Pittsburgh		x				x

The most used platform among Adventures Erie competitors are:

- Facebook: 100%
- LinkedIn: 33%
- Instagram: 83%
- Twitter: 33%
- TikTok: 16%
- YouTube: 66%

Social Media Engagement

Play Port Arcade has little presence on social media. While accounting for all major platforms, its only account resides on Facebook. 12 As of 2022, the account has a total of 12 posts. 13 These posts accounted for 490 likes total, an average of 40.8 likes per post, and 256 comments, 21.3 average per post. 14 The account has also accumulated a total of 7,010 posts and 7,145 followers total. 15 In the last year, Play Port Arcade's Facebook has also achieved 597 shares on all posts, averaging a share count of 49.75 shares per post. The content contains events being posted, advertising things such as BYOB nights, openings of new activities available, and updates on popular games/attractions at the facility. Its most popular post, reaching 252 likes, 7 230 comments, and 536 shares, is a post containing six pictures announcing the grand opening of its new laser tag facility. 16 Play Port Arcade's social media prioritizes attracting customers with both deals available for a short amount of time, such as one night, and more prominent attractions such as pictures and promotions of popular games such as pinball and laser tag. The account is also extremely consistent with communication via social media. Under several posts, the company responds to comments/questions concerning times, pricing, etc. 17 This promotes a personal touch with consumers and encourages a friendly and open environment in the business.





Mercyhurst.edu - SEO Checker

PDF Export

Overview of the SEO Check

SEO Score

Meta information

61%

Page quality

72%

Page structure

79%

Link structure

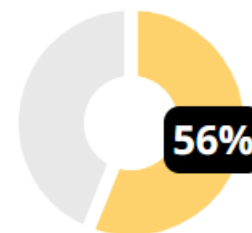
46%

Server

0%

External factors

77%



56%

SEO Score Widget

Response time

0.13 s

File size

218.90 kB

Words

1559

Media files

17

Number of links

141 internal / 66 external

SEOBILITY

- Review website quality
- Provide auditing, keyword monitoring, backlink analysis, Content optimization, and reporting
- Assist with competitor analysis
- Provides monitoring dashboards

seobility





Go To:

- [Page Analysis](#)
- [Keyword Analysis](#)
- [GitHub](#)

Page Analysis:

[show all notices](#)

page	word count	number of notices
> https://www.mercyhurst.edu/academics/cirat	1607	214

Keyword Analysis:

keywords	count
intelligence	36
student	31
business	17
analysis	15
cirat	14
service	14
information	13
support	13
data	13
competitive	12

Self Created Scripts

- Provide all the same functionality of Seobility
- Open-source
- Modified to fit Innovation Entente Lab uses



SEO Analysis

Meta Specifications / Descriptions:

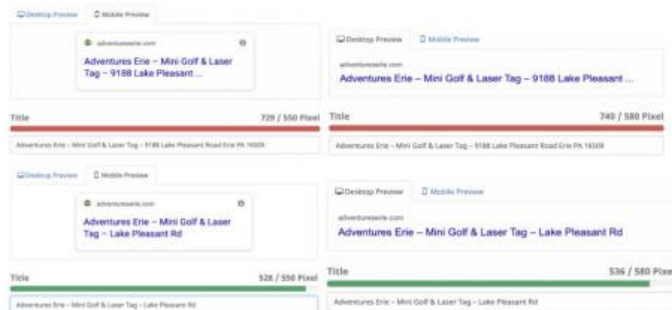
Meta Descriptions are extremely important for search engines to understand what your page is about. A meta description is information about your page that appears in the search engine results page below the page title and URL of your page.

Adventure Erie scored **80** percent in this category. There are two areas that need to be addressed.

Meta specifications		80% achieved
Title ■■■	Adventures Erie - Mini Golf & Laser Tag - 9188 Lake Pleasant Road Erie PA 16509 - The page title should be shorter than 580 pixels. It is 749 pixels long. Optimize title ✓ There are no duplicate words in the title	Meta Title
Meta description ■■■	✗ The meta description is missing.	Meta Description

Actions for Improvement:

- Shorten the Page Title. This is the title that shows up when you search for Adventure Erie in Google. Having longer page titles has a higher chance of getting cut off. This is the first impression someone has when they search for your website so make sure it's visually appealing.



Keyword Research:

Keyword research is the process by which you research popular search terms people type into search engines like Google, and include them strategically in your content so that your content appears higher on a search engine results page (SERP).

Keywords:

- [things to do in erie pa](#)
 - Reach out to blog posts via email to get your business added to their websites.
- [laser tag near me](#)
 - Adventures Erie ranks first on Google My Business
 - Ranks 7th on the overall Search Engine Results Page
 - To Rank Higher for this keyword, have more descriptive alt tags on pictures. You have “laser tag” throughout the text on your webpage however. There are pictures pertaining to laser tags that are labeled “Mini Golf” in the alt tag.
- [putt putt golf erie pa](#)
 - Adventures Erie ranks first on Google My Business
 - Ranks 2nd on the overall Search Engine Results Page
- [family activities in erie pa](#)
 - Adventures Erie doesn't rank for this keyword. To help Rank for this keyword I would suggest adding words such as,
 - “Fun for the Whole Family”
 - “Kids Love it”

According to [SmartInsight](#) the first ranked website achieves roughly 30-40%, second highest receives 15-25% and the number drops off the lower you get down on the SERP.



Description:

Overview: [REDACTED], located across the United States, offers a sanctuary of luxury and holistic well-being. Known for an unwavering commitment to an unparalleled massage and facial experience, their diverse services range from therapeutic massages to revitalizing facials. The spa's ambiance, marked by soothing colors and calming scents, sets the stage for a transformative journey toward relaxation. Skilled therapists provide personalized treatments in state-of-the-art facilities, including relaxation lounges and steam rooms. Embracing a holistic approach to wellness, curated programs address specific needs, ensuring comprehensive rejuvenation. Committed to sustainability, [REDACTED] integrates eco-friendly practices, offering membership and loyalty programs that foster lasting connections with valued patrons.

Service Analysis: [REDACTED] offers a comprehensive range of services catering to diverse preferences and needs. In the realm of massages, the Absolute Massage stands out as a deep tissue table massage, providing ultimate massage relaxation for durations of 30, 45, or 60 minutes, priced at \$99, \$129, and \$159, respectively. The Be Up Massage, focusing on the upper body with a deep tissue chair massage, offers relief for back pain in sessions ranging from 15 to 60 minutes, with prices ranging from \$44 to \$94. The Be Foot Massage, a foot massage and Reflexology, spans 15 to 45 minutes, priced from \$44 to \$94. The Head Up Massage, targeting head and neck for stress relief, varies from 15 to 60 minutes, with costs ranging from \$44 to \$94.

In nail care, exclusive Men Manicure and Express Manicure cater to various needs. Men Manicure lasts 15 to 35 minutes at \$45, while Express Manicure, including cleaning, filing, and base coat application, ranges from \$35 to \$45, with dazzle dry and gel options. Classic Manicure, spanning 30 to 45 minutes, offers polish, dazzle dry, and gel options priced from \$45 to \$65. Classic Pedicure, lasting 35 to 60 minutes, includes thorough foot care and is priced from \$59 to \$79. Wellness offerings include the Shower, ideal for post-travel rejuvenation, with durations of 10 to 25 minutes, and costs are unavailable. In beauty services, waxing sessions (10 to 30 minutes) and facials (30 to 60 minutes) in private rooms are available, with facial prices starting at \$74. The Combo Package, providing a head-to-toe experience, includes a 20-minute foot massage and a 20-minute Be Up Chair Massage, totaling 40 minutes at a cost of \$95.

Marketing: [REDACTED] has successfully cultivated a strong online presence with 10,000 followers and likes on Facebook, along with 6,721 followers on Instagram. Their consistent posting strategy, covering a spectrum from services and benefits to self-care treatments and product promotions, showcases a dedication to engaging their audience on multiple fronts. The business's visually appealing Instagram profile, enriched with high-quality images, effectively captures the essence of their luxurious and tranquil ambiance. By incorporating product promotions alongside service highlights, [REDACTED] not only encourages service bookings but also diversifies potential revenue streams. While maintaining this strong presence, the business could further enhance engagement by incorporating user-generated content and exploring interactive features to deepen the connection with their audience. The link to their Facebook account is [https://www.facebook.com/\[REDACTED\]](https://www.facebook.com/[REDACTED]) whereas the link to their Instagram account is [https://www.instagram.com/\[REDACTED\]](https://www.instagram.com/[REDACTED]).



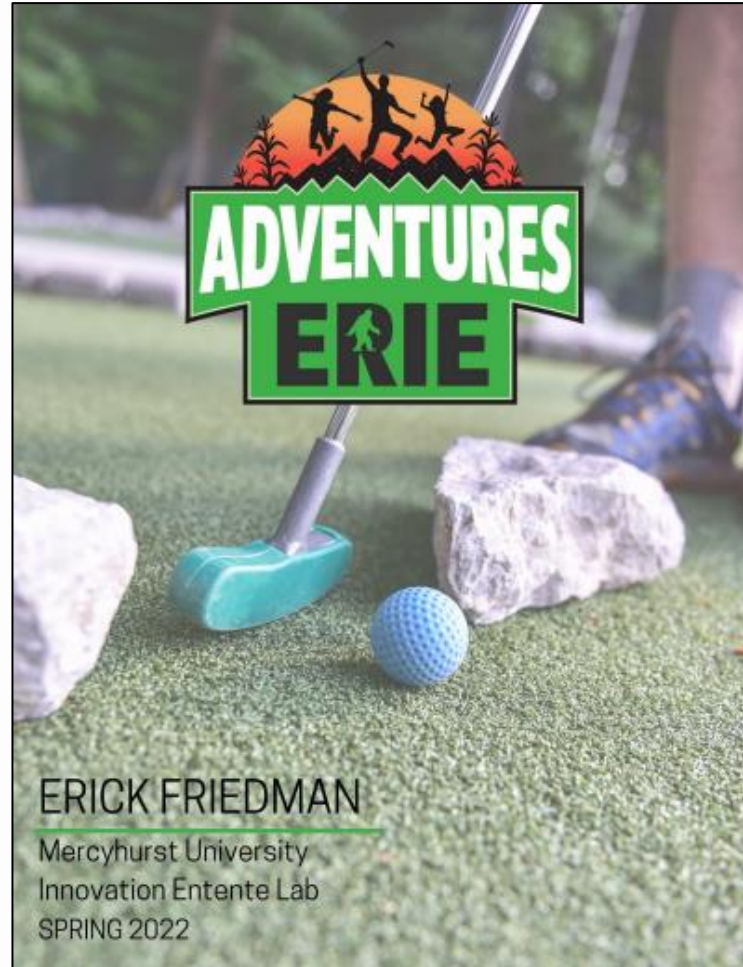
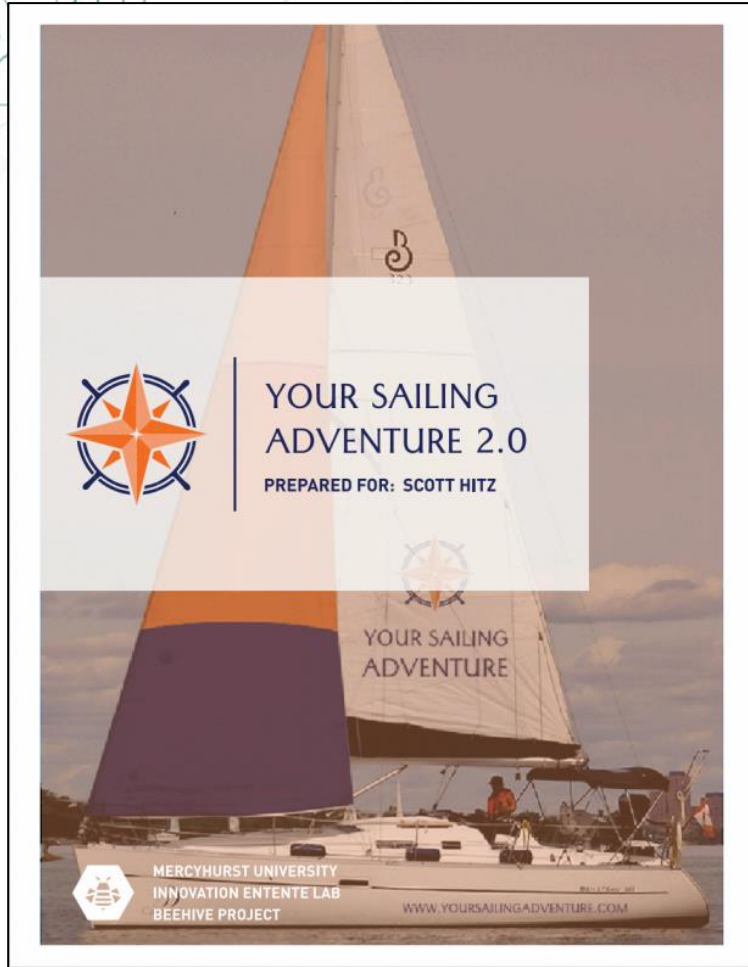
Dissemination

- Written Products
- Briefings
- Proofread and corrected by senior leadership



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Final Products



Cost Break Down

Tool	Cost
Meta Search Engines	Free
Demographic Data	-
Polycymaps	Map Access Free (Negotiable)
Google Earth Pro	Free
US Census Data	Free
Patent Databases (WIPO, Google Patent, USPTO)	Free
ZoomInfo	50,000 Commercial (Negotiable)
SocialBlade	Free
Seobility	600
Python-Seo-Analyzer	Free
Total	Based on negotiated prices



Thank You!

Questions and Comments?

cirat@mercyhurst.edu



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SECTOR**

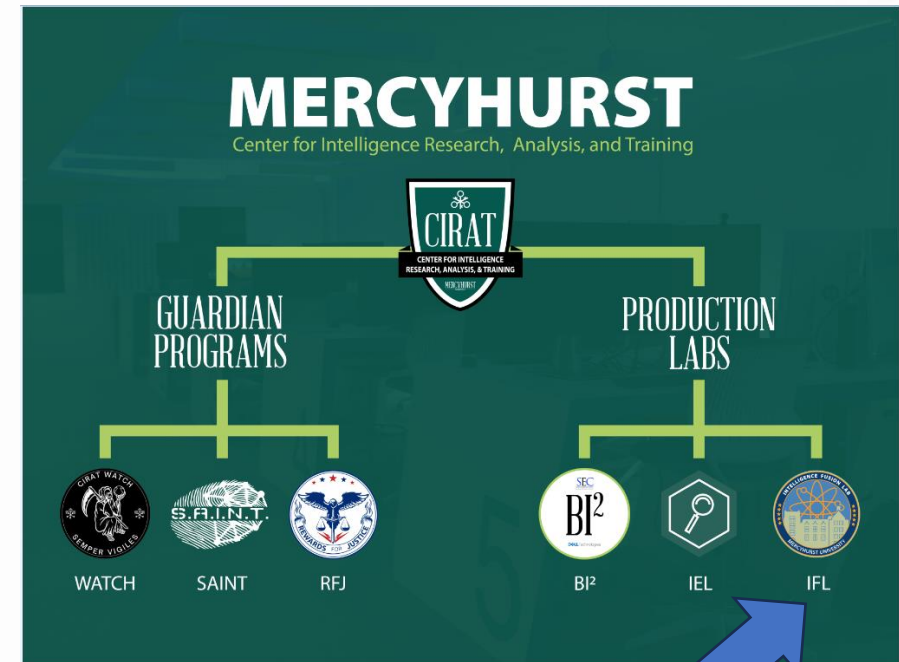
INTELLIGENCE FUSION LAB

SCIP INTELICON NASHVILLE 2024



Agenda

- What is the purpose of the IFL
- Collection Requirements/Statement of Work
- Collection Plan/Risk Assessment
- OSINT/Managed Attribution: Tradecraft/Tools
- Products
 - Analytical Reports/Executive Summaries
 - Course of Action Development
 - Indicators and Warnings (Process and Charts)
- Monitoring/Collection Requirements (Coordination with Watch)
- Knowledge Management
- Key Tools Utilized



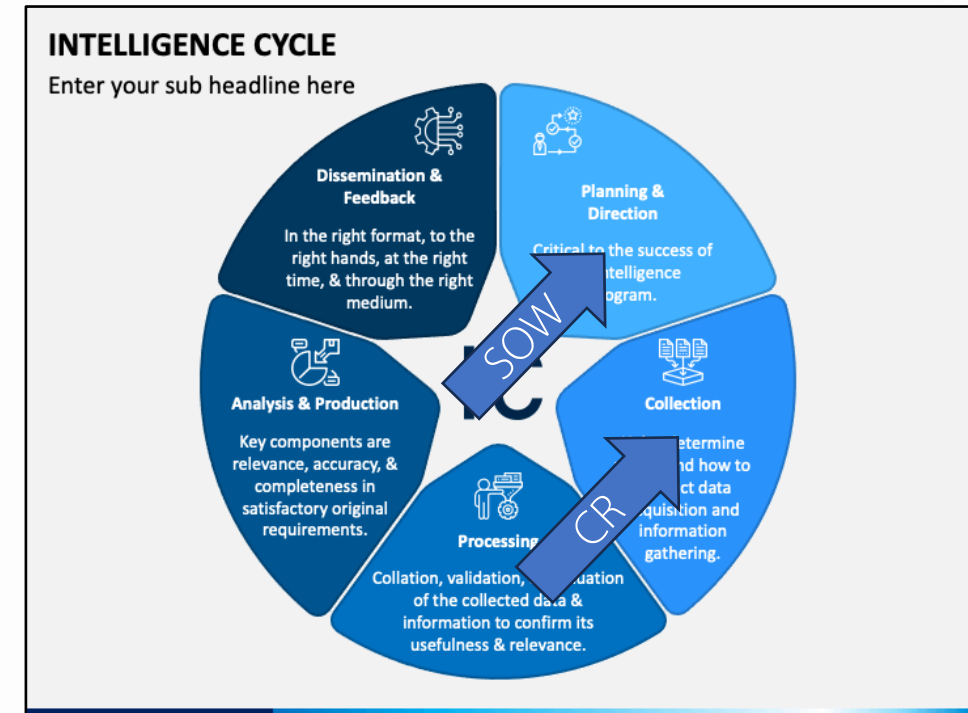
What is the purpose of the IFL?

- Intelligence Fusion Lab
 - Production for Decision Makers
 - Provides Intelligence/Information for Operational Support
 - Provides companies with quality Intelligence Analysts, Data Scientists, Cyber
- Constantly Evolving
 - Pivoting to meet industry needs
 - Adaptive products
 - New tools
 - New techniques
 - Creating leaders



Statement of Work/ Collection Requirements

- First step of process
- Statement of Work (SOW)
 - What does the client/decision-maker need?
 - How do they want it returned?
 - Time frame?
 - Sharing of data?
 - NDA?
- Collection Requirements (CR)
 - What data must be collected to answer the SOW
 - Roles and responsibilities of the Project Team
 - Sources, tradecraft, data handling
 - LTIOV



Collection Plan

- Plan Identification Data
 - Project name
 - Originating organization
 - Date and period of collection
 - Target/Subject
- Operational Data
 - Intelligence requirement
 - Justification/Background
 - Proposed TTP (tools)
 - Risk
 - Proposed collection techniques/procedures (Key words List, Attribution,
 - Coordination
 - Addition resource requirements



Collection Plan Example

OPEN-SOURCE INTELLIGENCE COLLECTION PLAN (U)

1. (U) PLAN IDENTIFICATION DATA:

- a. (U) **NAME:** 5-Star Border Security
- b. (U) **ORIGINATING ORGANIZATION:** RIAP 121 OSINT
- c. (U) **DATE AND PERIOD OF COLLECTION:** [2.22.24 - 4.29.24]
- d. (XX) **TARGET:** US/Mexico Border Migration Issue: US and Mexico Government Relations
- Causations and consequences of Southern Border Migration

2. (U) OPERATIONAL DATA:

a. (U) INTELLIGENCE REQUIREMENT:

- 1) Where are migrants coming from and why?
- 2) What is the diplomatic situation currently between the United States and Mexico concerning the border?
- 3) Where are migrants crossing the border at the highest frequencies?
- 4) What is the effect of illegal immigrants on US National Security?

B. (U) JUSTIFICATION/BACKGROUND: This research will be completed to fulfill the Practical Exercises for OSINT 121 requirements to further the team's application of the tools and techniques introduced.

c. (U) PROPOSED TTP:

- 1) Discuss procedures and processes, then equally distribute tasks and responsibilities
- 2) Construct a structured timeline
- 3) Synthesize a collection plan, risk assessment form, and source log
- 4) Generate a key words list
- 5) Translate the key words list into the intended language (Spanish)
- 6) Develop a managed attribution plan
 - a. Invent a point of presence that will appear standard on the targeted website utilizing websites such as SimilarWeb
 - b. Research the typical user's appearance on the targeted website to blend in with expected behavior
 - c. Utilize Authentic8's Silo and Toolbox to reduce topical risk

- d. Employ the 4+4 rule during ingress and egress to the targeted website
- e. Keep cookies on and follow common website patterns
- 7) Perform and collect research utilizing our managed attribution plan in order to mitigate technical and topical risks
- 8) Re-adjust key words for a more refined search
- 9) Take screenshots of research in order to collect it
- 10) Save any screenshots or websites in the Authentic8 Cloud Storage
- 11) Produce a product answering the intelligence requirements utilizing the research collected and thus disseminate the information

d. (U) RISK: **attached risk assessment sheet

e. (U) PROPOSED SPECIAL COLLECTION TECHNIQUES / PROCEDURES (IAW DODM 5240.01):

- Authentic8's TOR network utilized for Dark Web research and collection

f. (U) COORDINATION:

Brian Fuller - access to OSINT tools

Phone number: 814-824-2324

E-mail: bfuller@mercyhurst.edu

Gianfranco Machado - access to OSINT tools

E-mail: gmacha91@lakers.mercyhurst.edu

g. (U) ADDITIONAL RESOURCES REQUIREMENTS: {If needed.}

CLASSIFIED: _____ WHEN FILLED IN

OPEN SOURCE INTELLIGENCE COLLECTION PLAN

UNIT: _____

DATE

5. (U) Approval:

a. (U) AUTHORITY TO CONDUCT ACTIVITY: Professor Brian Fuller

b. (U) Approved _____ **by** _____

(Approving Authority)



Risk Assessment

- Determined based on Collection Plan
- What are the collection threats
- What is the level of the threat
- How can you mitigate the threat (Managed Attribution)
- New level of risk
- Is the risk level acceptable?
- CYA



Risk Assessment: Example

DELIBERATE RISK ASSESSMENT WORKSHEET					
1. MISSION/TASK DESCRIPTION Iran's growing influence in Latin America			2. DATE (DD/MM/YYYY) 02/04/2024		
3. PREPARED BY					
a. Name (Last, First, Middle Initial) C Boden, K Ralph, F Garrett, H Cassidy, M Colin, W Abigail		b. Rank/Grade Students		c. Duty Title/Position Open Source Intelligence Analysts	
d. Unit Veritas Letalis		e. Work Email gfitzg98@lakers.mercyhurst.edu		f. Telephone (DSN/Commercial (Include Area Code))	
g. UIC/CIN (as required) OSINT 121-01		h. Training Support/Lesson Plan or OPORD (as required)		i. Signature of Preparer <i>Garrett Fitzgerald</i>	
Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls (4) Implement controls (5) Supervise and evaluate controls & make decisions <i>numbers not equal to numbered items on form</i>					
4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
Identify key countries, organizations, and other actors that are involved.	Failure to identify internal and external actors that are involved in the topic can hinder the development and execution of effective strategies.	M	Conduct thorough research and collection of information on key actors involved.	How: Keywords, Recorded Future Who: Veritas Letalis	L
Objectives of internal and external actors that are involved.	Failure to understand the objectives and intentions of key actors can hinder the development and execution of effective strategies in foreign domains	M	Consistently monitor the activities of external and internal actors that are involved in order to understand their true intentions.	How: Keywords, Recorded Future Who: Veritas Letalis	M
Collection of foreign websites and social media	without a proper MA plan can be a topical risk and overall threat to our product.	EF	Develop a proper MA plan and use A8 for any foreign websites found on BabelStreet that should be further explored. (target websites)	How: Keywords, BabelStreet, MA plan, A8 Who: Veritas Letalis	H
Predict potential future actions by key actors along with the impact and implications.	Failure to predict potential outcomes could result in missed opportunities for taking appropriate action.	H	Develop appropriate response and backup plans to adapt to actions conducted by key actors.	How: Keywords, Recorded Future, A8, I2 Who: Veritas Letalis	M
				How: Who:	
Additional entries for items 5 through 9 are provided on page 2.					
10. OVERALL RESIDUAL RISK LEVEL (All controls implemented):					
EXTREMELY HIGH		HIGH		MEDIUM	
11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION					
When it comes to using Authentic 8 to conduct further research on targeted foreign websites, regularly check with all analysts on the team to ensure that they are correctly conducting manage attribution and are using a well-developed trail when ingressing and egressing target websites of the AOR to avoid suspicion and detection.					
12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK					
a. Name (Last, First, Middle Initial) Fuller, Brian		b. Rank/Grade OSINT Instructor		c. Duty Title/Position Signature of Approval Authority	
e. Additional Guidance: DD FORM 2977, JAN 2014					



OSINT/Managed Attribution: Tradecraft /Tools

- What is Managed Attribution?
- Why is it needed?
- Mitigates all technical and topical risks (If Done Properly)
- MA Plan (Next slide)
- Authentic8
 - Browser encryption tool for high-risk, sensitive collection
 - Tier 0, Tier 1, Tier 2
 - Utilized for management attribution plan
 - Silo, Toolbox, TOR



OSINT/Managed Attribution: MA Plan

- What is an MA Plan?
- Why is it needed?
- Mitigates all technical and topical risks (If Done Properly)
- MA Plan Construction
 - Target Website (Threat info)
 - Website Statistics
 - Select Point of Presence (POP)
 - User Agent String
 - 4 + 4 trail (Ingress/Egress plan)
 - Collection of data plan



OSINT/Managed Attribution: MA Plan Example



MA Plan

Keywords: Relations; Mexico; America "Relaciones México-Estados Unidos"

Foreign Site: About the U.S.-Mexico Bilateral Relationship

<https://www.bing.com/ck/a?!&p=77d7e763bbfd482bjmldHM9MTcwODk5MjAwMCZpZ3VpZD0wYmVjNiU3OS04YzljLTZkMGUzMjRlZC03NiE4OGQ2MTZlMTUmaW5zaWQ9NTIxNA&ptn=3&ver=2&hsh=3&fclid=Obec6579-8c9c-6d0e-24ed-76188d616c15&psq=Relaciones+M%c3%a9xico-Estados+Unidos+%22.mx%22&u=a1aHR0cHM6Ly9wb3J0YWxlcyc3ZcmUuZ29iLm14L21eC1ldWEvYWNIcmNhLWRLWxhLXJlbGFiaW9uLWJpbGF0ZXJhbA&ntb=1>

Tier: 2

POP: US West

Time zone: Similar time zones; do not collect at odd hours of the night to not raise suspicion

Established Browser: google.com

VirusTotal: not flagged as malicious

Typical User Profile: United States (30.19%), China (23.89%)

User Agent String: Desktop User (65.83%)

Website Analytics:

Monthly Visits: 84.86 B

Average Visit Duration: 10:38

Pages per visit: 8.63

Bounce Rate: 28.25%

Group Traffic Share Split: 95% google.com

Branded vs Non-Branded Search: 88% Branded

MA Plan:

1. Use a SILO browser as the first level of attribution
2. Utilize determined POP Toolbox
 - a. Employ the researched website analytics to determine bounce rate, monthly visits, average visit duration, etc.
3. Ingress
 - a. Start the session by going to newzit.com, as the site provides a solid lead into the next site with 26.45 of the shares in Top Referring Websites.

b. Go to drudgereport.com as the lead into msn.com, as it has the greatest share in Top Referring Websites.

c. Go to Msn.com as the last stop before the targeted website, as it has over 78% of the share in Top Referring Websites.

4. Egress

a. Since there are no link destinations described on SimilarWeb, go to Duck Duck Go and use the key words "Relaciones México-Estados Unidos" to find the next site to visit

b. Go to <https://www.latimes.com/espanol/mexico/articulo/2022-12-13/el-que-y-porque-desde-washington-mexico-y-estados-unidos-200-anos-de-emociones-fuertes> as it is a US site that is written in Spanish and follows a plausible egress trail using the keywords surrounding the topic of interest.

c. From the previous site, go to en.Wikipedia.org, as it has the highest percent share of the Top referring websites.

d. From the previous website, go to wikimedia.org to finish out the egress trail before closing out the browser



Production: Types

- Executive Summary for C-Suite
- Analytical Reports of key findings
 - SFAR/LFAR/Threat Analysis (Strategic, Tactical, Competitive Business)
 - Course of Action (COA)
 - Indicators and Warnings (I&W)
 - Subject Packages
 - Red Team Reports (Includes Cyber)
- PowerPoint Presentations/Briefings
- Data Visualization
- Vulnerability Assessments
- Custom reporting
- Program Evaluation



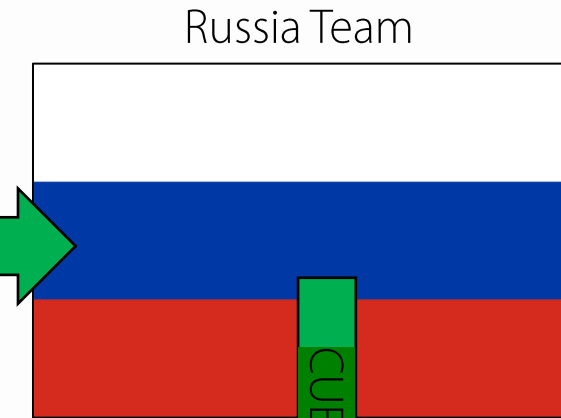
Products: COA and I&W

- Course of Action: Development based on Event or Threat
 - Most Likely
 - Most Dangerous
 - Wildcard
 - Allows for contingency planning with decision maker
- Indicators and Warnings: Based on COAs
 - Indicators: Vetted information or intelligence that an action may be occurring
 - Warning: Based on a set number of Indicators that action is occurring
 - A set number of Warnings confirms or denies which COA is occurring
- Developed efficiently in a short period of time
- Can drive collection requirements
- Can be easily monitored with the correct level of collection platforms
- What are your contingency processes?
 - Alert team lead
 - Create an intelligence report
 - Alert Decision maker
 - Briefing depending on severity and time



Monitoring : Tipping and Cueing

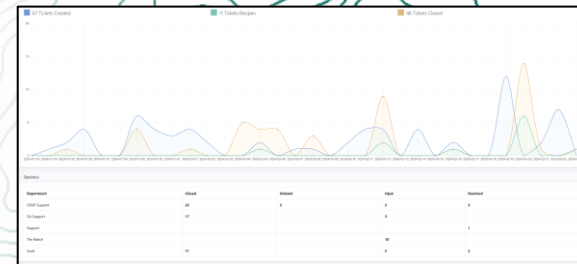
- Watch Program
 - Collection Requirements
 - POC to alert or send SFAR
- IFL Project Team Monitoring
 - Use of Tools:
 - A8 Collector, Recorded Future, Maltego, Babelstreet, Censys, FirstLight, RSS Feeds
 - Generative AI: Rover, Collector
- Weekly/daily depending on needs
- Update Collection requirements



**Tipping and cueing* is a technique that uses monitoring platforms to identify and track changes or updates to situations or activities, then communicate (Tipping) these updates or changes to key stakeholders for directing further (Cue) collection and analysis.

Knowledge Management (KM)

- Repository for products and Standard Operating Procedures (SOP)
- Training on new tools
- RFI Tracking
- Tools
 - FirstLight
 - Teams Sharepoint
 - Internally built Dashboard/Repository
 - Rover



Cost Break Down

Tools	Type
Lexusnexus	Online Database for News, Legal Cases, Company Info, etc.
Similar Web	Website analytics database
Intelius	Public record database
Zoom info	Corporate/Business network analysis
Mind miester	Product creation tool for visually appealing documents, picture collages, etc.
Google	Singular search engine
Lexusnexus	Online Database for News, Legal Cases, Company Info, etc.
Similar Web	Website analytics database
Intelius	Public record database
Zoom info	Corporate/Business network analysis



Cost Break Down

Tool	Cost
LexusNexus	Negotiable
Similar Web	\$333
Intelius	\$275
ZoomInfo	Negotiable
Mind Meister	\$180 yearly/user
Google	Free
Total	Based on negotiated prices



Conclusion

- Importance of a production cell
- Importance of correct tools
- Importance of MA and reducing risk
- Importance of KM
- Can handle large amounts of data with limited personnel with the correct infrastructure and technology
- Can meet your decision-makers needs in a timely manner
- Questions???????



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Thank You!

Questions and Comments?

cirat@mercyhurst.edu



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CIRAT TOOLS & SOP

SCIP INTELICON NASHVILLE 2024



Agenda

- SOP Overview
- Managed attribution tools
- Databases
- Search engines
- Generate AI



SOP Overview

- The standard operating procedure provides a compartmentalized collection of the lab's 93 tools, databases, and software
- Training guides use efficiency
- Provides users the ability to master cutting-edge programs
- Provides Lab members with a quick onboarding process
- Updated bi-annually



Managed Attribution Programs

- Used to protect users from being tracked by malicious software and users
- Hides IP address and mask user activity

Browser Mirror

See what your browser reveals

Central Ops.net

Connection

client IP address: **38.87.207.20** [see what this reveals]
server port: **443**
request: **GET /aspcol/BrowserMirror.vbs.asp HTTP/1.1**
encryption: **256-bit session key**
authentication: **none**

HTTP headers

Connection: keep-alive
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp
Accept-Encoding: gzip, deflate, br, zstd
Accept-Language: en-US;q=0.5,en;q=0.3
Host: centralops.net
Referer: https://centralops.net/co/body
User-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/118.0.0.0 Safari/537.36
Upgrade-Insecure-Requests: 1
Sec-Fetch-Site: same-origin
Sec-Fetch-Mode: navigate
Sec-Fetch-User: ?1
Sec-Fetch-Dest: frame

siLO

BY AUTHENTICS

MANAGED ATTRIBUTION SESSION

Silo for Research uses specially-procured network services in the selected location to enable managed attribution research. Do not visit or log into websites that could be associated to you or your organization.

Key tools and associated icons are listed below. Silo for Research is built on Chromium - the base for Google Chrome and Microsoft Edge - so we work on all modern websites.

TOOLS AVAILABLE IN THE NAVIGATION BAR

- LOCATION & APPEARANCE
- SILO DRIVE
- SILO SCREENSHOT
- SILO KEYBOARD
- SILO TRANSLATION
- SILO MULTI-SITE SEARCH (if purchased)
- SILO SCHEDULED COLLECTION (if purchased)

Yes! You are unique among the 2553097 fingerprints in our entire dataset.

The following informations reveal your OS, browser, browser version as well as your timezone and preferred language. Moreover, we show the proportion of users sharing the same elements.

gnu/linux based Operating system	chrome Web browser	en Language	UTC-04:00 Timezone
43.53%	74.32%	4.77%	

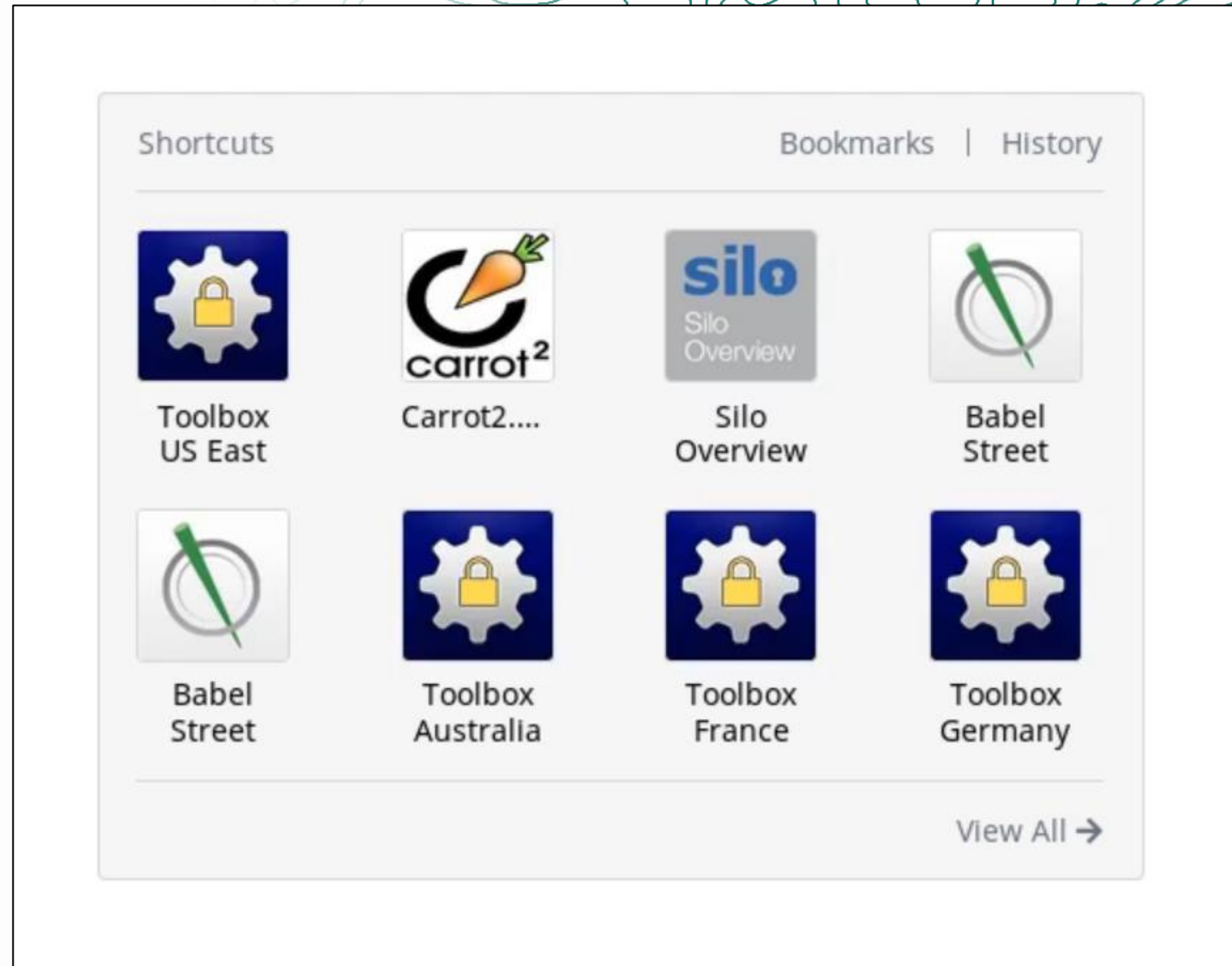
ATTRIBUTES

Similarity ratio	Value
0.05 %	Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/118.0.0.0 Safari/537.36
14.08 %	text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
2.01 %	gzip, deflate, br, zstd
0.01 %	en-US;q=0.5,en;q=0.3
90.86 %	1
5.67 %	https://www.google.com/

A8 Silo

Managed Attribution

- browser encryption tool and resource management tool used in high-risk collection
- The key program used to maintain managed attribution
- Toolbox feature allows the user to mask IP addresses with regional proxy servers



authentic8

Databases

Collections of information on Geopolitical, Commerce, and Cyber events

Over 10 databases in the SOP

Global Events

- GDELT
- ACLED
- Global Terrorism Database

Supply Chain

Business/Commercial

- Panjiva
- Intellignace2day
- ZoomInfo
- Wango

Cybersecurity

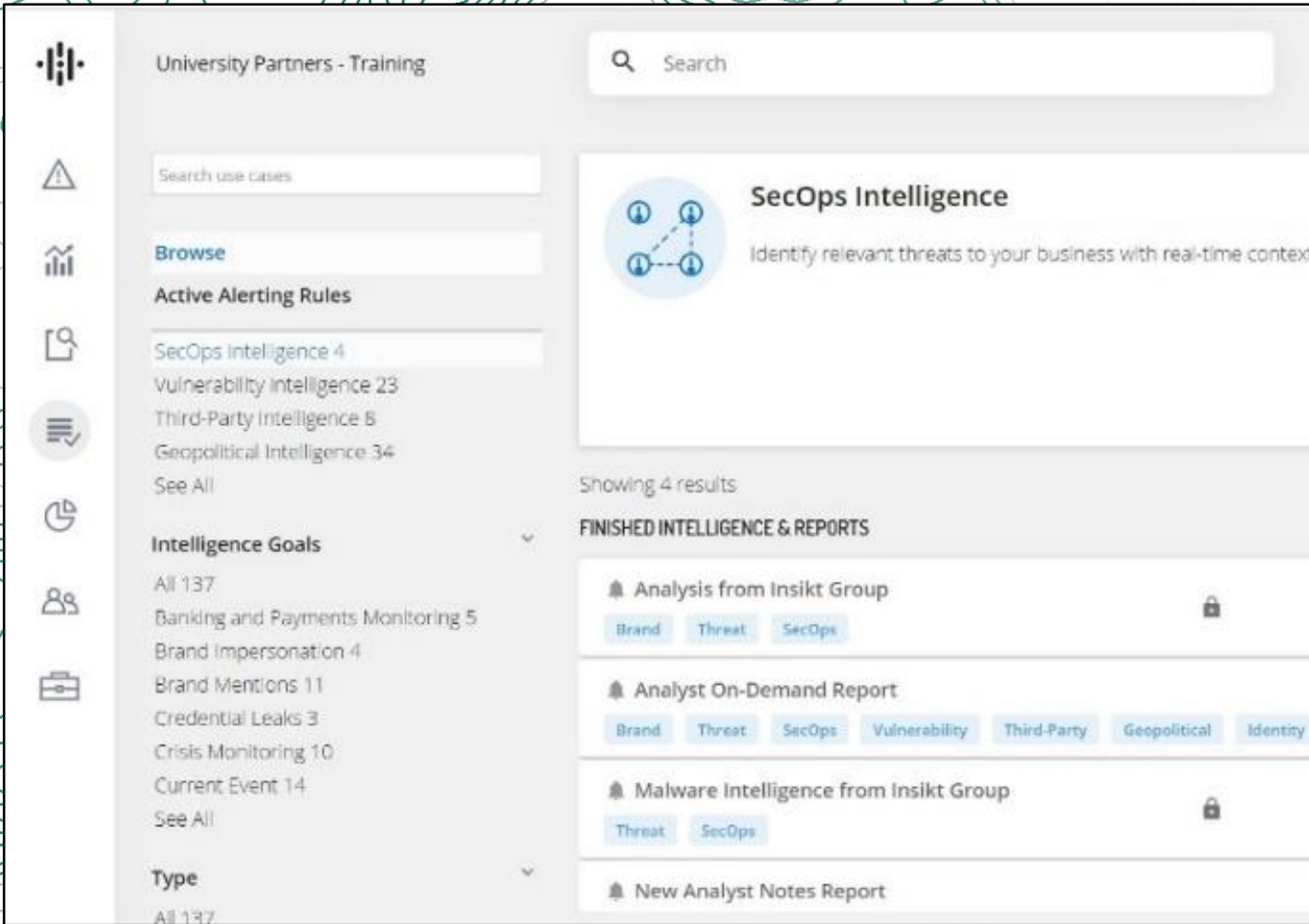
- Recorded Future

Social Media

Exploitation

- Babel Street
- Namechk
- Dedicated social media sites








Recorded Future

Cybersecurity

- Intelligence security database that can be used for information collection based on recent events
- Analyze vast amounts of open, dark, and proprietary web data in real-time
- Provides actionable insights into emerging threats, vulnerabilities, and exploits.



co Colombia Data: Update
has been reissued, with complete backfill and all key fields. The data will be updated monthly, 60 days from the end of the month. [See it live.](#)

My Panjiva   

ACTIVITY FEED

about 3 hours ago

Recent profile: [Dji Baiwang Technology Co., Ltd.](#)

Recent search: [Suppliers Matching Dji - with refinements](#)

13 days ago

Recent search: [United States import shipments matching nike footwear](#)

29 days ago

Recent search: [United States import shipments matching Abbott Laboratories](#)

Recent search: [United States import shipments matching Abbott Laboratories](#)

DATA UPDATES

19,038 shipment records added to US Exports
added April 23, 2023, data through April 16, 2023

106,316 shipment records added to US Imports
added April 23, 2023, data through April 20, 2023

38,963 shipment records added to Chile Exports
added April 21, 2023, data through February 29, 2023

60,649 shipment records added to Chile Imports
added April 21, 2023, data through February 29, 2023

8,826 shipment records added to Peru Exports
added April 21, 2023, data through April 14, 2023

208 shipment records added to Peru Imports
added April 21, 2023, data through April 16, 2023

29,960 shipment records added to US Exports

[DATA UPDATES >](#)

Panjiva

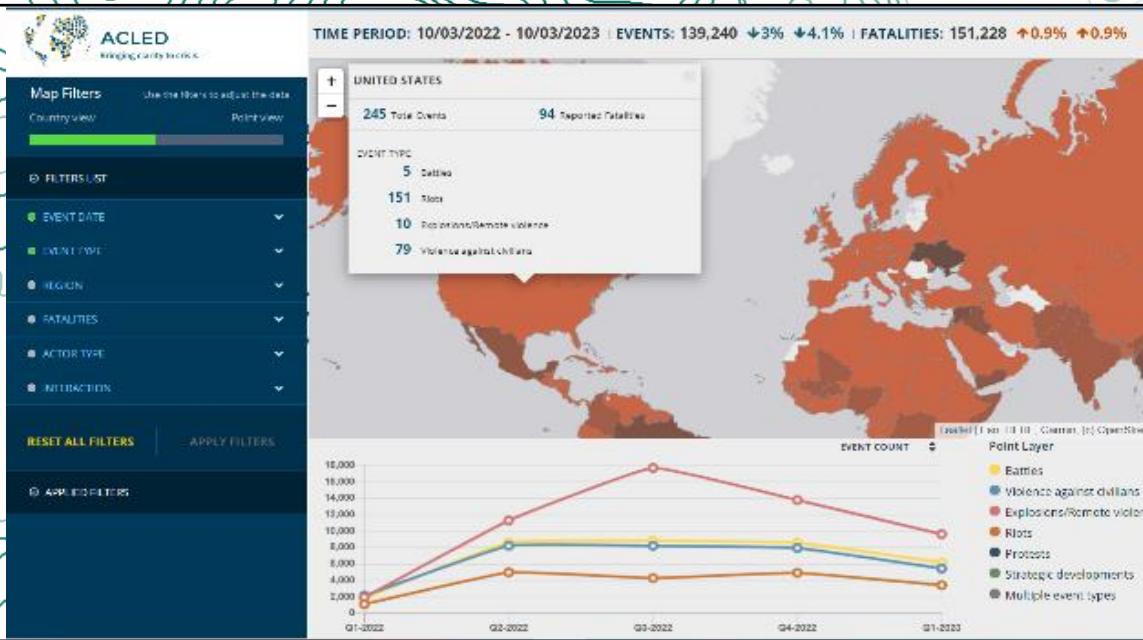
Supply Chain

- Trade program that provides both raw data and actionable intelligence regarding global trade.
- Provides global trends and raw data regarding shipments of exports/imports worldwide and those that are sending/receiving them.

Panjiva

S&P Global
Market Intelligence

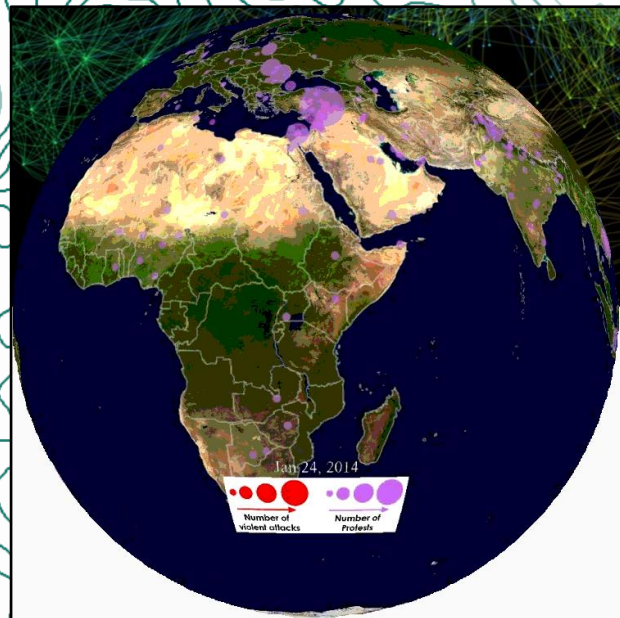




ACLED

Global event database

- The Armed Conflict Location & Event is a disaggregated data collection, analysis, and crisis mapping project.
- Collects information on the dates, actors, locations, fatalities, and types of all reported political violence and protest events around the world.



GDELT

Global event database

- Provides results from a wide range of topics
- Updated Daily for **near real-time developments on Geopolitical, economic, and social issues.**
- Used with Rover to enhance our collection

The GDELT Project



The screenshot displays the Babel Street search interface. The top navigation bar includes 'OVERVIEW', 'DOCUMENTS [63]', 'INSIGHTS GPT BETA', and a search icon. The left sidebar contains several filter sections: 'Refine' (Sort By: Date), 'Timeframe' (From: 2024-04-17 04:00 AM, To: 2024-04-19 04:00 AM), 'Tags [0]', 'Sites [36]' (listing linkedin.co..., ebay.com, hurstathlet..., yahoo.com, catsarchyws...), 'Document Types [9]' (listing News Search, linkedin.co..., Web Search, ebay.com, DarkOwl), and 'Languages [2]'. The main content area shows a LinkedIn post from 'Mercyhurst University' with the headline 'marks new era in athletics with move ...'. Below the post is a 'Document Details' section with the following information:

- Document Details:** FULL SOURCE URL: https://www.linkedin.com/posts/mercyhurst-university_mercyhurst-university-marks-new-era-in-athletics-activity-7181687793868247040-V5Fd
- MENTIONED URL(S):** No data available
- Author Information:** AUTHOR: No data available; ID: No data available; PLACE: No data available; URL: No data available

Babel Street

Social Media Exploitation

- Web searches, IP lookups, geolocational searches, entity analysis
- Pulls results from X, Meta, Flickr, and LinkedIn
- Reduces the need to conduct separate collections on each of the aforementioned Social Media apps



Search Engines

Meta search engines take user input and then query multiple search engines for results.

Dark Search Engines access the unindexed section of the internet

Meta Search Engines

- Carrot2
- Qwant
- Dogpile
- All the Internet
- Start Page
- Yippy Inc.

Dark Search Engines

- Torch
- DuckDuckGo
- Not Evil
- AHMIA
- Haystack

Foreign Search Engines

- Yandex
- Baidu
- Shenma
- Google Domain Extender

Image Search Engines

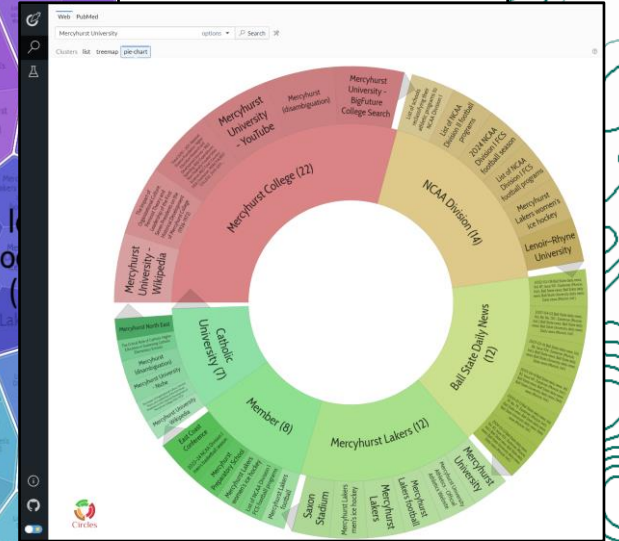
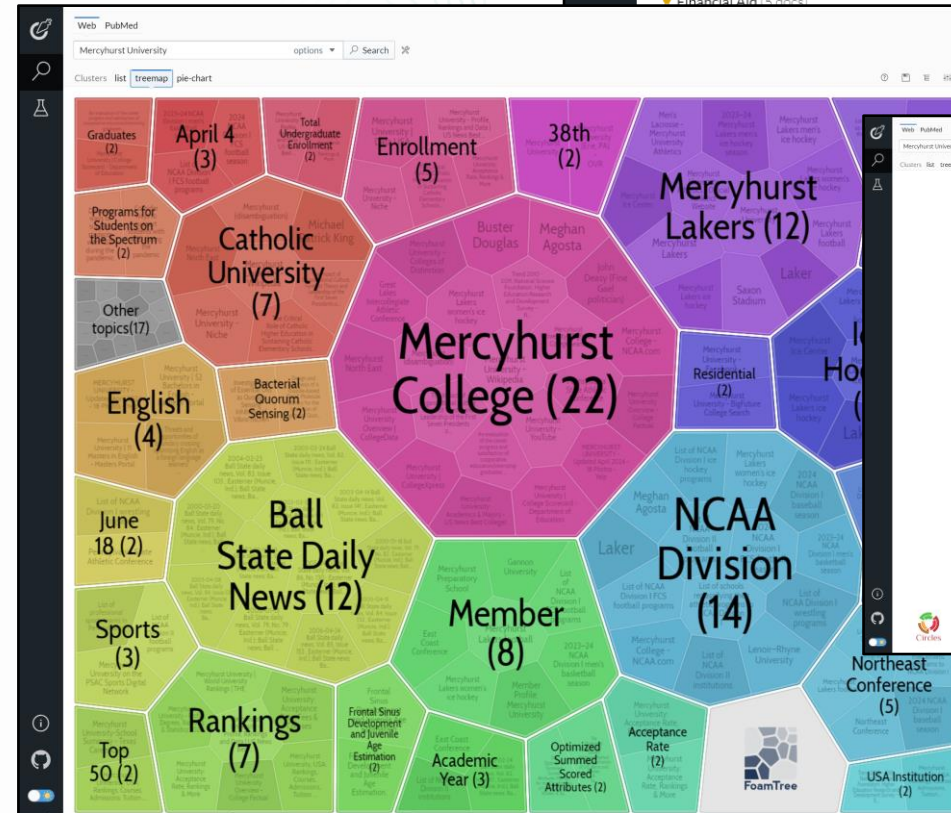
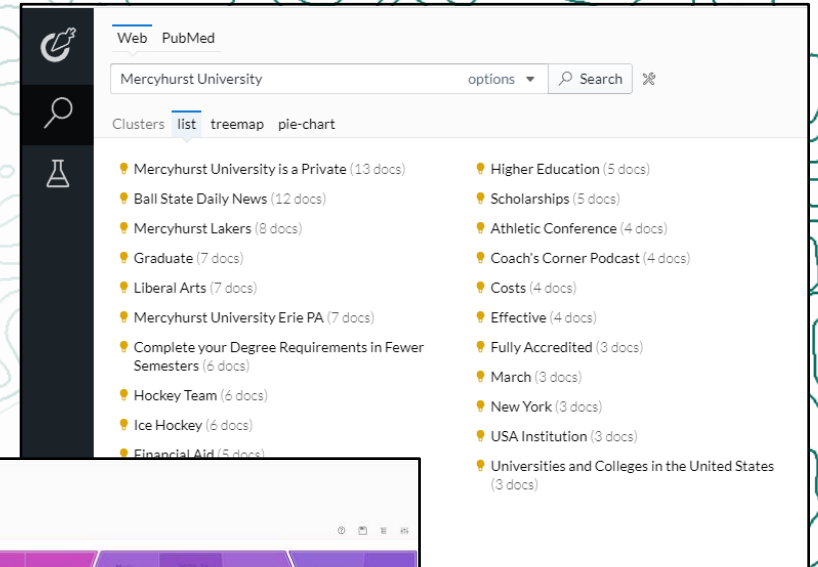
- FotoForensics
- ImgOps
- Google Image Search
- TinEye



Carrot 2

Meta Search Engine

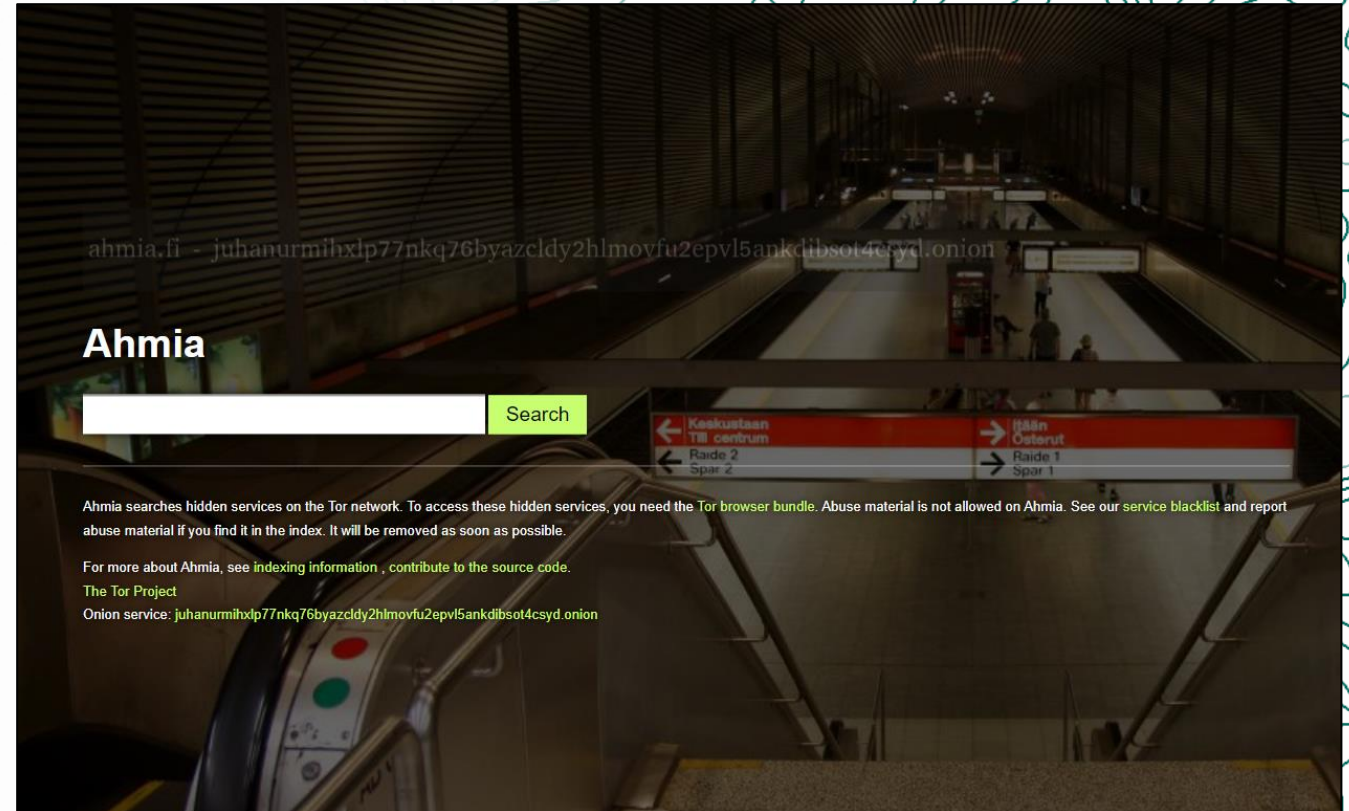
- The main Meta search engine used in the lab
- Compartmentalizes Results into thematic Charts and clusters, allowing for more efficient use
- Pulls from several sources simultaneously, allowing for in-depth results



Ahmia

Dark Search Engine

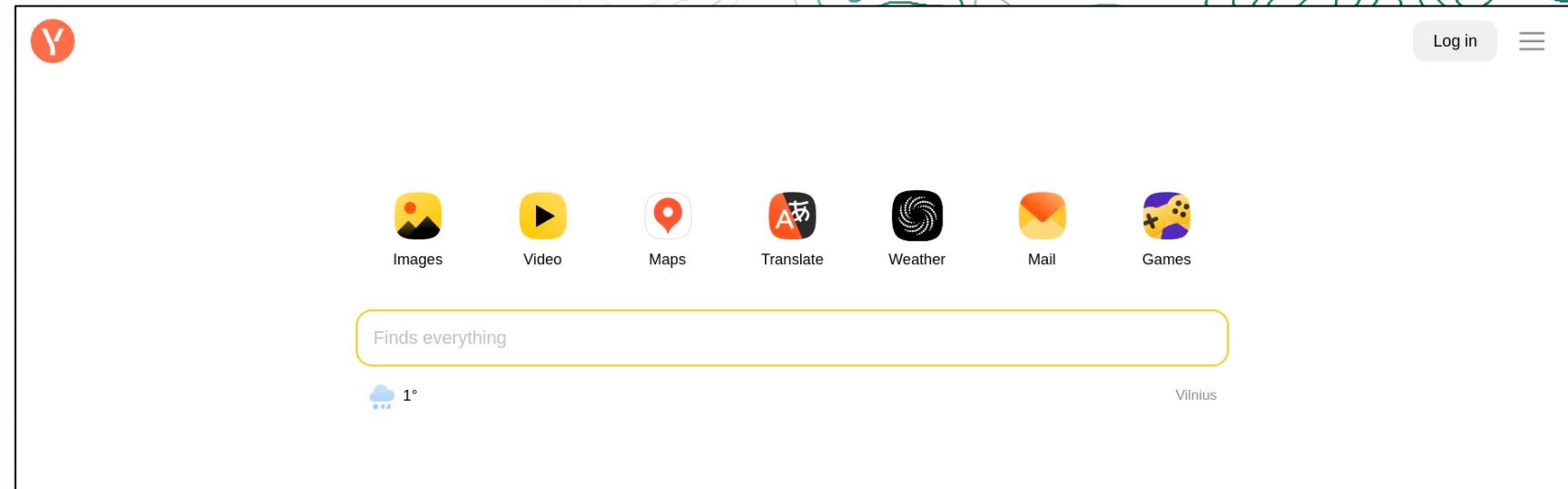
- The main Dark Web search engine used in the lab
- Curates searches in order to eliminate potentially illicit results



Yandex

Foreign Search Engine

- Russian equivalent to Google
- Insight on the general Chinese pulse on a given issue

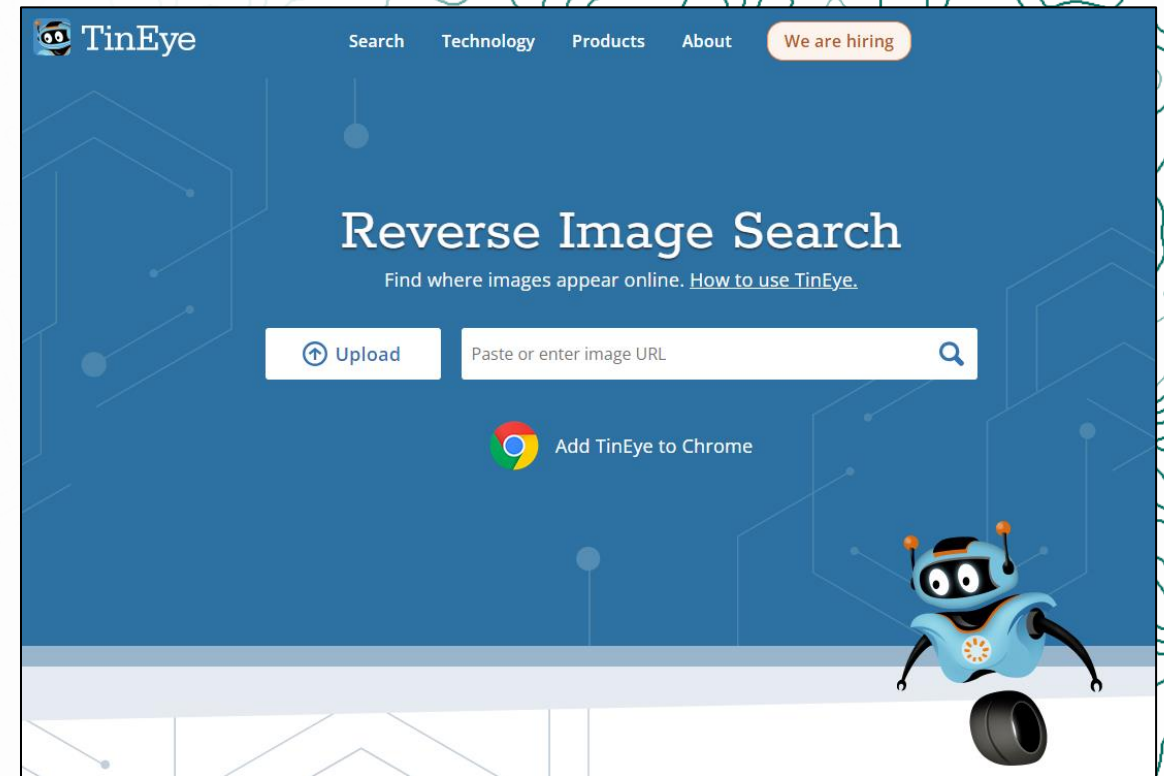


TinEye

Image Search Engine

The main reverse image search used in the labs

- Allows for an analyst to identify the source of images
- Allows for the investigation of images to identify if the pictures are doctored



Project Management Tools

Used to:

- Plan the structure of the project
- Save data on dedicated pages and documents
- Monitor potential new findings



MERCYHURST
UNIVERSITY

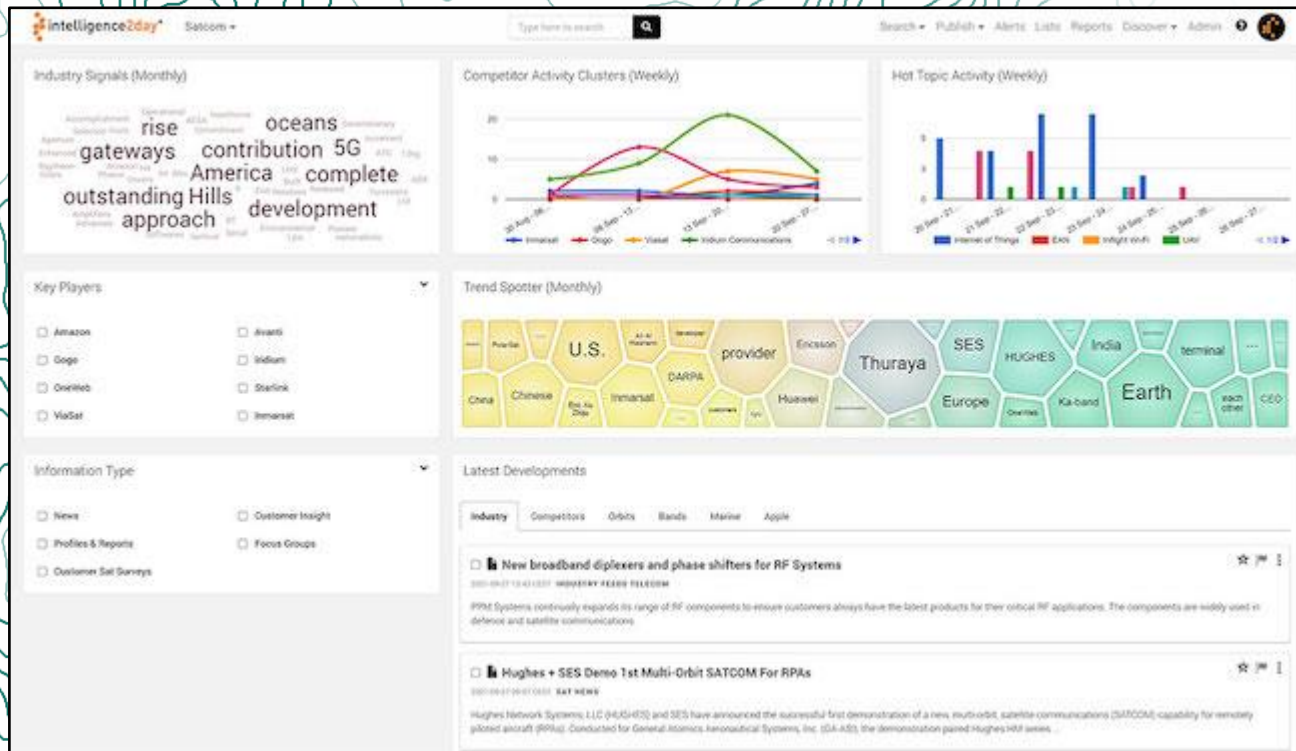
FirstLight

- First Light is a project management and social listening tool.
- Compartmentalizes project findings into dedicated pages
- Can upload documents and customize the pages to fetch relevant social media data.

A screenshot of the FirstLight dashboard for Mercyhurst University. The dashboard has a dark green header with the Mercyhurst University logo and a search bar. A left sidebar contains navigation options: DASHBOARDS (Mercyhurst University, Home), CIRAT, Capstones, Metrics, and Sandbox Resources; COLLECTION & ANALYSIS (Newsroom, Visualizations); and HELP (Knowledge Base). The main content area is titled "Mercyhurst University" and features three panels. The first panel, "MERCYHURST IN NEWS", displays a table of news items with columns for Title, Date, and a vertical ellipsis menu. The second panel, "MERCYHURST TWITTER MENTIONS", shows a tweet from @jasongay and an updated post about a "Pathetic" statement. The third panel, "Tweets from @MercyhurstU", includes a "Follow" button and a retweet notification.

Title	Date	
Erie Police Swear in Three New Officers to Join the 186-member City Police Force <i>Go Erie - 04.25.23</i>	04.25.23	
2023 NCAA Division II Men's Tennis Championship Selections <i>NCAA - 04.25.23</i>	04.25.23	
Fleetwood's Alexis Hless, Wyomissing's Amaya Stewart Earn All-State Girls Basketball Honors <i>Northwest Georgia News - 04.25.23</i>	04.25.23	
H.S. Girls Basketball: Lourdes Pair, Reisinger Named All state <i>News-Item (Shamokin, PA) - 04.24.23</i>	04.25.23	
Men's Tennis Clinches Spot in NCAA Tournament <i>Hurstathletics - 04.25.23</i>	04.25.23	
Softball Sweeps PSAC Weekly Honors <i>Hurstathletics - 04.24.23</i>	04.24.23	





Intelligence2day

- Comprehensive intelligence management platform designed to facilitate the collection, analysis, and dissemination of strategic intelligence
- Competitive intelligence, market research, risk management, and decision-making processes.



ROVER ANALYTICS STUDIO SUPER ADMIN AI STUDIO

competitive business intelligence and marketing firms targeting small business and entrepreneurs in the Washington DC area Share

Get Started

- ASK ROVER
- Datcenter
- GEN AI
- My Insights
- Market Players
- GEN X
- Comparative Analysis

ask rover... Search

Global Source My Source News

is there any companies that offer both business intelligence and marketing services in DC that serve small businesses

Yes, there are several companies in Washington DC that offer both business intelligence and marketing services to small businesses. Some examples include:

- 1) 17th Street Consulting - This company provides both business intelligence and marketing solutions to small businesses, including data analysis, market research, and social media marketing.
- 2) Big Field Digital - This agency offers business intelligence services such as market analysis and customer insights, as well as marketing services like digital marketing and branding.
- 3) The Hannon Group - This full-service agency offers business intelligence solutions such as business planning, market research, and data analysis, as well as marketing services like branding, advertising, and social media management.
- 4) Urban Interactive Studio - This company specializes in both business intelligence and marketing for small businesses, offering services such as customer research, data analysis, market strategy, and digital marketing.
- 5) Castro Strategic Solutions - Along with offering business intelligence solutions such as data analysis and market research, this agency also provides marketing services such as brand strategy and public relations.

It's always a good idea to research and compare different companies to find the best fit for your specific business needs.

17th Consulting The Hannon Group Urban Interactive Studio Castro Strategic Solutions

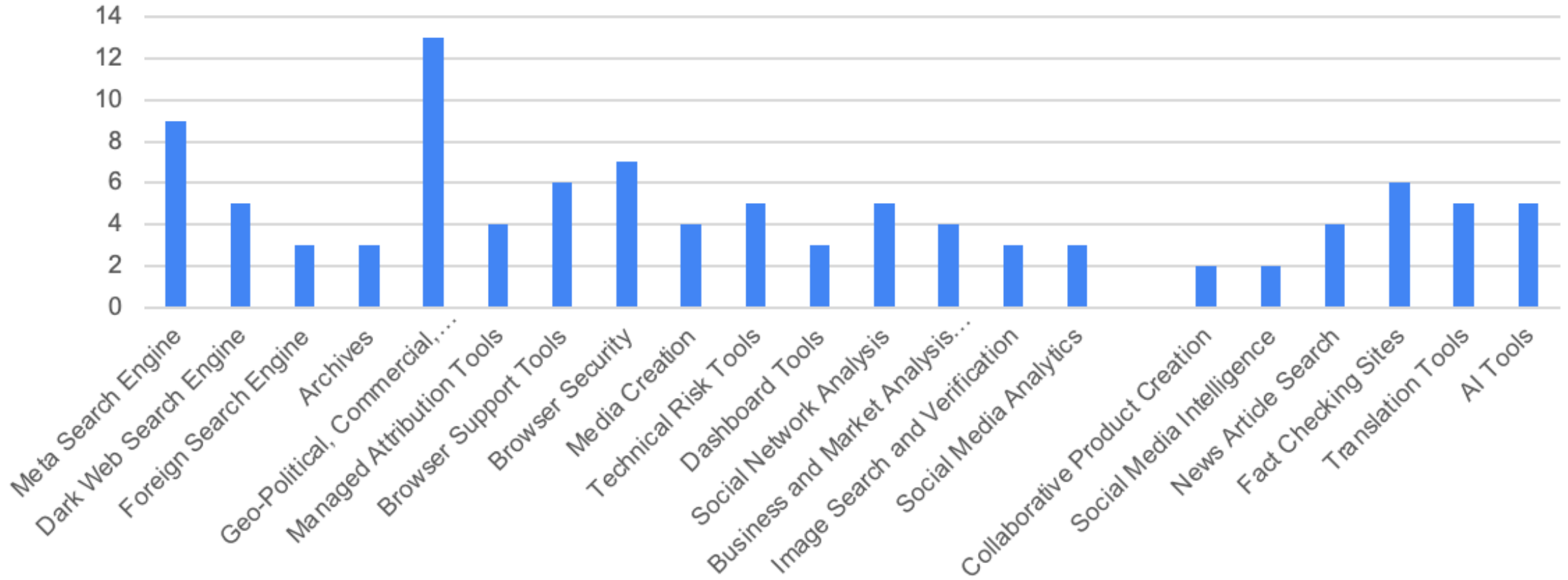
Generative AI

Generative AI is used:

- Planning
- Formatting final products
- Data Analysis



Number of tools



Conclusion

- Streamlines program training and ease of use
- Reduces the need to keep separate training guides
- Logs all company programs into 1 document
- Helps with team onboarding



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Thank You for your attendance!

Questions and Comments?

bfuller@mercyhurst.edu

New Website Launched!!!!!!

Mucirat.com

