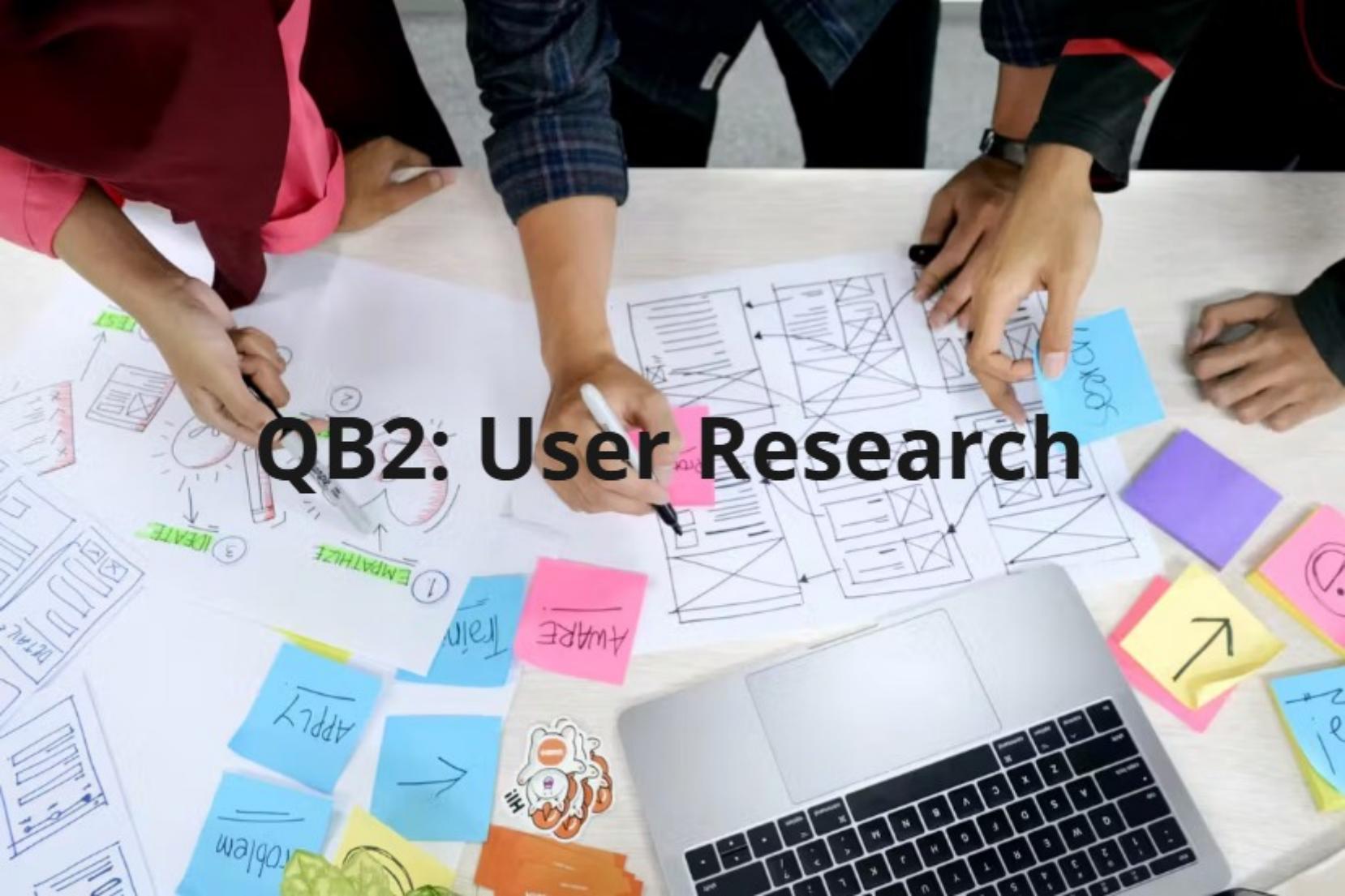


QB2: User Research



Methods to Gather Research



Surveys

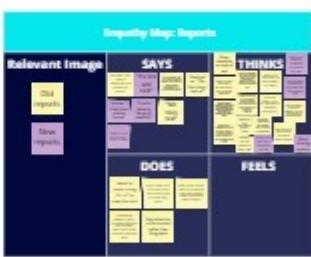


User Interviews



Focus Groups

Empathy Maps



Empathy Map: Main Panel

Relevant Image

Search for any of these terms
Combine or refine or precise produce better results

- T "Central African Republic" ✘ X
- T bed breaker ✘ X
- T central park new york ✘ X
- T confessions ✘ X
- T eastleigh swedes ✘ X
- T fight for park ✘ X
- T mortal health woman ✘ X
- T strangelove ✘ X
- T talk zone ✘ X

Term filter
Refine your search by adding cross-referenced search terms

Exclusion filter
Add exclusions to your search

Location filter
Focus your search on a specific place

Main functionality - uses with the filters to get better results

Accounts of interest
Restrict your search to specific accounts or pages

From Add User

SAYS

"They are all valid" (all sections)

"I do use it, but whether I'm using it correctly I'm not 100% sure"

"More colourful!"

Pills: "Caught my eye the very first time we looked at COSAIN!"

"Could be more descriptive in colour"

"some people give up and don't even know why"

Pills: "Making something very complex easy to visualise"

"Have to keep in mind that it's the little plus button in the search box ... not intuitive"

THINKS

Could look 'punchier', it is a bit of a blur, the section blends into each other

Thinks things need to stand out more

Likes the structure and separations between the filters and terms

The width of the term bank could be wider as it is a little small

Would like to be able to organise the pills e.g. by alphabetical order

Would like tooltips to help new users

DOES

"I just do what I need to do and get out"

FEELS

Not confident if they are using it correctly

Confusion about the use of quotes, double quotes. Sure be more intuitive.

Main functionality - uses with the filters to get better results

Uninterested in the visual elements - more spacing or boxing

Empathy Map: Query builder Pre-Built queries

Relevant Image	SAYS	THINKS
	<p>"It's still really useful"</p> <p>"I think that's a huge win"</p> <p>"A simpler approach from the outset is going to please a lot of people"</p>	<p>In high pressure environment, people uncomfortable with the system may try to overcomplicate the queries they build</p> <p>Saves time in creating a new one</p>
	DOES	FEELS

User Personas and stories

user persona
junior data analyst
responsible for processing, presenting and analysing data from various sources.

name
Sarah Johnson
age 28
workplace COSAIN Bureau Team
title Junior Data Analyst
experience 1 year
interests Data analysis, technology, learning new skills

motivations

- Managing incoming data feeds effectively
- Ensuring data is presented clearly and accurately
- Identifying trends and patterns in data
- Creating reports for management and stakeholders
- Keeping up-to-date with new data analysis tools and techniques

challenges

- Managing multiple data sources simultaneously
- Dealing with incomplete or inconsistent data
- Learning how to use new software and tools
- Managing time effectively between different tasks

values

- Accuracy
- Efficiency
- Integrity
- Transparency

user persona
data analyst
responsible for managing and analysing data to support decision-making.

name
David Williams
age 32
workplace COSAIN Bureau Team
title Data Analyst
experience 5 years
interests Data analysis, technology, learning new skills

motivations

- Managing large volumes of data effectively
- Ensuring data is used to inform key decisions
- Identifying opportunities for improvement
- Creating reports for management and stakeholders
- Keeping up-to-date with new data analysis tools and techniques

challenges

- Managing multiple data sources simultaneously
- Dealing with incomplete or inconsistent data
- Learning how to use new software and tools
- Managing time effectively between different tasks

values

- Accuracy
- Efficiency
- Integrity
- Transparency

As a **junior data analyst** for the COSAIN bureau team, I want to **filter** through results, so that I can **capture relevant posts** to log in the event log.

As a **data analyst** I want to **filter, organise and edit pills**, so that I can **manage terms** created for my queries

user persona
intelligence researcher
responsible for identifying and analysing information from various sources to support decision-making.

name
Linda Thompson
age 35
workplace COSAIN Bureau Team
title Intelligence Researcher
experience 3 years
interests Data analysis, technology, learning new skills

motivations

- Identifying potential threats or opportunities
- Providing intelligence to support decision-making
- Keeping up-to-date with new intelligence analysis tools and techniques

challenges

- Managing multiple data sources simultaneously
- Dealing with incomplete or inconsistent data
- Learning how to use new software and tools
- Managing time effectively between different tasks

values

- Accuracy
- Efficiency
- Integrity
- Transparency

user persona
open source investigator
responsible for collecting and analysing information from external sources to support investigation.

name
Emily Green
age 29
workplace MET Police
title Open Source Investigator
experience 2 years
interests Data analysis, technology, learning new skills

motivations

- Gathering intelligence from various sources to support investigation
- Keeping up-to-date with new investigation techniques

challenges

- Managing multiple data sources simultaneously
- Dealing with incomplete or inconsistent data
- Learning how to use new software and tools
- Managing time effectively between different tasks

values

- Accuracy
- Efficiency
- Integrity
- Transparency

As a **intelligence researcher** I want to **upload terms** from an **external source** (e.g. Excel), so that I can **maximise the time spent on building queries** and focus on the results generated.

As an **open source investigator** for the MET police I want to **access reports** within the COSAIN system, so that I can **open external social media links** within the policing Longarm system.

user persona
senior intelligence analyst
responsible for leading and managing the intelligence function within their organisation.

name
Peter Williams
age 45
workplace COSAIN Bureau Team
title Senior Intelligence Analyst
experience 10 years
interests Data analysis, technology, learning new skills

motivations

- Managing the intelligence function effectively
- Ensuring intelligence is used to support decision-making
- Keeping up-to-date with new intelligence analysis tools and techniques

challenges

- Managing multiple data sources simultaneously
- Dealing with incomplete or inconsistent data
- Learning how to use new software and tools
- Managing time effectively between different tasks

values

- Accuracy
- Efficiency
- Integrity
- Transparency

As a **senior intelligence analyst** I want to have a **reminder** when my **email scheduled reports are ending**, so that I can **extend the time period** if necessary

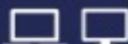


Joao Costa
Data Analyst

Demographic and environment

- Age: 26
- Lives in Vancouver, Canada
- Experience in the field: 4 years

Desk Setup



Hybrid worker (3 days in office, 2 days remote. Has a lot of tabs open and data to review so works from a laptop and a monitor

Attributes

Good time management

Collaborative

Flexible

Analytical

Problem solving

Curious

Innovative

Sorting terms in a query

"As you add them, they just get added... if it's as basic as just putting them back into alphabetical order so that you can see. what's there"

Confusion on functionality

"As as a new user, I have to remind myself what the different functions do. For things like that as you're navigating around, it would be helpful to have little tool tips in some places."

Goals

- Build data skills and be promoted
- Leading their own project
- Keeping up with industry standards and trends
- Mentoring junior data analysts

Challenges

- Managing large volumes of query terms
- Creating queries: Can be time consuming to upload new terms/synonyms of terms in Query Builder
- Deleting duplicated pills
- Functionality being obscured or not obvious enough

Tasks

- Create queries for investigation teams
- Manage and edit existing queries to maximise results
- Create dashboards using PowerBI and other data visualisation tools
- Monitor latest crypto currency chatter/information
- Cross-referencing, analysing and assessing data

As a data analyst I want to filter, organise and edit pills, so that I can manage terms created for my queries

User Journey Maps

User Persona: Kirsty Nguyen

http://www.wiley.com/go/lindeburg

Action	Devise report schedule	Open Report	Analyze Report	Analyze Retained Pool	Complete Business Line
Task List	Open a. Open recent case calculator	Open a. Open recent report calculator	Open a. Analyze recent report calculator	Open a. Analyze recent pool calculator	Open a. Open recent business line calculator
	Open b. Open last case calculator	Open b. Open last report calculator	Open b. Analyze last report calculator	Open b. Analyze last pool calculator	Open b. Open recent business line calculator
	Open c. Open next case calculator	Open c. Open next report calculator	Open c. Analyze next report calculator	Open c. Analyze next pool calculator	Open c. Open recent business line calculator
	Open d. Open prior case calculator	Open d. Open prior report calculator	Open d. Analyze prior report calculator	Open d. Analyze prior pool calculator	Open d. Open recent business line calculator
Partnership/ Partnership	Longer duration report	Longer duration report	Longer duration report	Longer duration calculator	Longer duration calculator
Improvement Opportunities			<ul style="list-style-type: none"> 1. Create a report schedule 2. Create a report calculator 3. Create a report dashboard 4. Create a report backlog 	<ul style="list-style-type: none"> 1. Create a report backlog 2. Create a report dashboard 	<ul style="list-style-type: none"> 1. Create a report backlog

User Personas: João Coelho

Page 10 of 10

Action	Login as COMM	Navigate to Query Builder	Open Relevance Query	Open a Query	Open a Difficultie
Task List	View all communication requests View and mark messages	New A new message has been received A new query has been received	New A relevance query has been received A relevance query has been created	New An association query item has been received	New A difficult message has been received A difficult relevance query has been received
Parameter/Profile	Change profile	Editing relevant message parameters	Editing relevant message parameters	Editing relevant message parameters	Editing relevant message parameters
Improvement Opportunities		<ul style="list-style-type: none"> • Complexity management • Simplify message parameters 	<ul style="list-style-type: none"> • Terminal message parameters 	<ul style="list-style-type: none"> • Improve the naming of association queries • Improve the naming of relevance queries • Improve the naming of message items 	<ul style="list-style-type: none"> • Strategic planning in message item creation • More efficient message item creation

User Personas: Nicola Cumberbatch

2020-2021 学年第一学期期中考试

Action	Launch in Content	Navigate to Query Builder	Open Previous Query	Open a Query Term	Add a Term to a Definition
TASK LIST	Launch in Content	Open a new page for navigating to the term you are viewing.	Open a previous query	Open a query term	Open a term to add it to a definition
MANAGE YOUR PUBLISHING	Manage terms	Launch terms legacy application only	Manage terms	Manage terms	Manage terms
INTEGRATION WITH EXISTING SYSTEMS				Manage terms	Manage terms

User Personas: Lydia Smith

第1章 项目管理

Action	Open Report	Analyze Report	Open LongForm	Analyze Relevant Post	
Task List	<ul style="list-style-type: none"> Open report Open report from my inbox Open report from my dashboard Open report from my backlog 	<ul style="list-style-type: none"> Open & Read report Open & Analyze report Open & Create report Open & Publish report 	<ul style="list-style-type: none"> Open Open & Read report Open & Create report Open & Publish report 	<ul style="list-style-type: none"> Open & Read report Open & Create report Open & Publish report 	
Participants/Involvement	Assign audience	Assign audience	Assign audience	Assign audience	
Improvement Opportunities	<ul style="list-style-type: none"> Change audience target Change audience Change audience 	<ul style="list-style-type: none"> Change audience target Change audience Change audience 	<ul style="list-style-type: none"> Change audience target Change audience Change audience 	<ul style="list-style-type: none"> Change audience target Change audience Change audience 	<ul style="list-style-type: none"> Ability to re-allocate users between posts Ability to re-allocate users between posts

User Persona: Paul Knight

www.ijerph.com

Action	Check results	Open Query Builder	Open Release Query	Review Read Schedule	Edit Read Schedule Details
YESTERDAY	Task A status: ready	Task A: no change	Task A: no change or open	Task A: no change or open	Task A: no change or open
	Task B status: ready	Task B: no change or suggest	Task B: no change query	Task B: no change or open	Task B: no change or open
	Task C status: open	Task C: open query	Task C: open query	Task C: open query	Task C: open query
PAST 30 DAYS	Request process status: ready	Long running processes	Long running processes	Long running queries	Long running queries
	Long running storage				
PENDING OPPORTUNITY	Reopen pending review	Reopen pending review	Reopen pending review	Reopen pending review	Reopen pending review
	Reopen pending backlog				

User Persona: Joao Costa

Goal: Manage/filter/edit pills

User Journey Map

Action	Login to COSAIN	Navigate to Query Builder	Open Relevant Query	Open a Query Term	Open a Definition Term
TASK LIST	Tasks: A. Enter username and password B. Land on COSAIN Homepage	Tasks: A. Click hamburger navigation B. Click Query Builder	Tasks: A. Scroll through 'all' queries B. Click relevant query	Tasks: A. Click desired Query term pill	Tasks: A. Click any desired definition term B. Apply inclusions/exclusions (if necessary)
PAINPOINTS/ FEELINGS	Feeling: Focused, Prepared	Feeling: Focused, Prepared, Overwhelmed (busy homepage)	Feeling: Neutral	Feeling: Neutral	Feeling: Neutral
IMPROVEMENT OPPORTUNITIES		<ul style="list-style-type: none">Simplify homepageDuplicated navigation (hamburger and bar)	<ul style="list-style-type: none">Remove disabled queries bar	<ul style="list-style-type: none">Have filters to sort by: date added, alphabetical order A-Z/ Z-AIncrease width of term bank	<ul style="list-style-type: none">Change wording or have an info button explaining what inclusions and exclusions are

Problem statements



Kirsty Nguyen is a new junior data analyst who needs to be able to filter through irrelevant posts that may be picked up by COSAIN because it increases the time spent analysing the reports leaving less time for other COSAIN work.

Joao Costa is a meticulous data analyst who needs to be able to manage, edit and filter term pills because they are hard to navigate through especially when there are several terms in a query.



Nicola Cumberbatch is a busy intelligence researcher who needs to quickly and efficiently add new terms to a query because it is time consuming adding terms manually one by one especially when there is many.

Lydia Smith is a dedicated open source investigator who needs to access the reports within COSAIN because she is unable to open URLs within the MET email server due to security reasons.



Paul Knight is an experienced senior intelligence analyst who needs to receive warnings when the email schedule for the reports is about to end because when the reports schedule ends his team is unaware and it causes setbacks and delays.

Male

CT
unit

Less than
a year in
role

Comfortable
with
technology

Not used
COSAIN
much

Monitor
live
incidents

Doesn't use
other COSAIN
products/fun-
ctionalities

Track social media
comments, see if
they breach anti-
terrorism laws

Not familiar
with others
COSAIN
functionalities

Male

No formal training on QB

Protest events and disorder intelligence team

Protests eg Pride events

Doesn't set up queries

Consume reports, someone in Team creates queries

Comfortable with technology

Don't use, need live feed

Didn't know live feed existed

Reports, keyword searches & und events

Tracks events leading up to protest

Post event reporting

Helpful to build intel picture to prepare for next event

Monitor tensions in communities

Track events from localised groups

Sentiment analysis is important to him

Gets regular reporting

Female

Researcher

CT
unit

Some forces
use it much
more than
she does

About
6 years

Monitor
live
events

Impressed by
the positive
results you
can get

Arrests have
been made
based on
results from
COSAIN

Doesn't use
other COSAIN
products/fun
ctionalities

Comfortable
with
technology

No formal
training
on QB

can't hear the
name it is at
17.17 of the
recording

Male

Supervisor
NDES (National
Digital
Exploitation
Service)

Comfortable
with
technology

Doesn't use
the product,
works with
users of the
product

Monitor
pre and
post event

Monitor
set-up
profiles

Monitor
set-up
profiles

Has had some
informal
training about
QB but doesn't
use it

Community
tensions

Male

NDES
(National
Digital
Exploitation
Service)

Comfortable
with
technology

Used QB,
Replay,
Footprint

Used QB,
Replay,
Footprint

Has used
COSAIN for
a very long
time

Male

Intel
development
officer

In the
role for
5 years

Had to learn to use
the job as was
disatisfied with the
reports the team in
charge of creating
the queries

Uses
QB daily

Create
new
queries

Fine tunes
existing
queries

Comfortable
with
technology

Empathy Map: Locations

Relevant Image



SAYS

"You want to be able to use a map function"

"clunky"

"The map is really useful"

"seen it but never really got my head around it"

THINKS

Thinks it would be helpful to freely create the shape instead of having a pre-created shape

Obscured, should be somewhere more prominent

Fiddly, scroll bar too narrow

DOES

1 user does use the functionality

Not a lot of usage from most of group

FEELS

Wary and confused about using location panel

Confused about the 'from', 'about' and 'both' filters under location panel

Female

Open
source
investigator

Investigate
major
incidents

Open
source
research
on people

Check what
people are
saying about
the incident

Look for
potential
witnesses
of incidents

Look for
videos of
incidents

Uses QB quite
sporadically. But
gets reports on
almost a daily
basis

Creates a query
when asked to
find out about a
particular
incident, term,
location or phrase

Uses
Footprint,
Replay

Request
comes
by email

In the
role for
3 years

Been using it
for 3 years.
Training with
Neil

Comfortable
with tech

Happy to
discuss
Footprint
faster. Footprint was
slow, progress bar
is misleading.

Uses
Cosain
within
LongArm

Has to do loads of
searches to do.

Male

Open
source
investig

Identify social
media presence
for individual
posting extreme
content

NDES -
SO15 -
CT

In role
for 8
years

Used QB
for 9
years

No longer a
regular
practionner
like he used to

Replay

Searcher
(sometimes)

proactively look for
social media users
that are posting
extreme content, so
we'll have profiles
set up with all the
different you know

Identify
threats against
eminent
subjects: MPs,
Royal

Some right wing terms,
horrible sort of racist terms,
things like that. People are
posting that sort of material and
all other sorts of like different sort
of variations of terrorism and
extremism, words that are linked
to terrorism and extremism.

Dig to find out who owns the
account

Look for
supporters of
known
terrorist
groups

Look for words,
terms, hashtags that
have been used by
the group before,
and see if anyone is
showing support

Critical
incidents Victims

Witnesses

Comfortable
with tech

Networker

Videos

Uses his own
prebuilt queries
as they are
bespoke to own
operations

Open to use created
definitors when
they are suitable
"VIP threats" or "CT
Threats" pre-built
(probably by ops)

Female

Open
source
investigator

Investigate
major
incidents

Open
source
research
on people

Check what
people are
saying about
the incident

Look for
potential
witnesses
of incidents

Look for
videos of
incidents

Uses QB quite
sporadically. But
gets reports on
almost a daily
basis

Creates a query
when asked to
find out about a
particular
incident, term,
location or phrase

Uses
Footprint,
Replay

Request
comes
by email

Happy to
discuss
Footprint
further

Uses
Cosain
within
LongArm

In the
role for
3 years

Been using it
for 3 years.
Training with
Neil

Comfortable
with tech

Language is unclear: Query Builder, Definition etc., very unclear

Replay: name is unclear, especially since it is just twitter data

Would like ability to right-click and interact with pills

Ash would be a great user to discuss Footprint with once the design is delivered

Not enough explanation as to what is being searched (valid on all aspects of the application)

They use QB on Laptop or Large screen

Doesn't need to be visible all the time

Can be useful on occasion

Distraction as focus is on building query (which can be complex)

Useful to monitor and if something relevant comes in, you can communicate it to someone on the ground.

Worth having it but not visible all the time

Can be handy; if something comes up during a live event (Pride in Brighton), you can see what's happening in real time and you can amend your query accordingly (Alex Mitchell)

Of use for people on the ground (live feed)

Someone else goes through report and sees results so no need to see the messages on screen.

Ratings (green / red colour) enough to know ????



Used a lot

Pain point: not available straight away. Must click on drop down

Use the scroll bar as indicator that there is more to fill in (not obvious enough)

Time interval: Would want weekly interval

End time is confusing. It should be the same as start time.

Need reminder that report is coming to end, to be able to extend it if necessary. Difficult management at the moment. People don't know where their reports are and they don't know why.

Would like to see status of all queries at a glance. Easier to manage

Self populated year view, when you set up queries over several weeks/months. Hard to visualize time span.

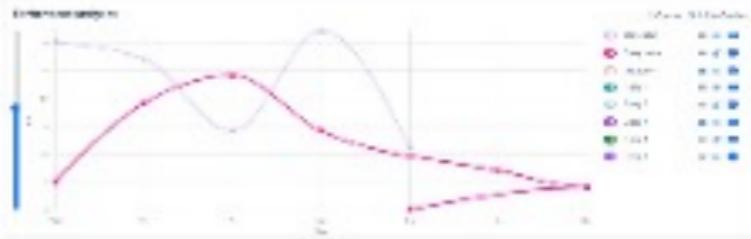
Suggestion of an alert on screen that query is about to expire

Expires within 2 weeks, 1 month etc. Gives leeway to act (annual leave, if nothing happens they can shut it down)

Assumption from most that query switches off when schedule ends

Super user assumes that the query stays after end date





Don't understand what the graph is doing

Don't have any need for it

HomePage
too messy for the graph to be noticeable



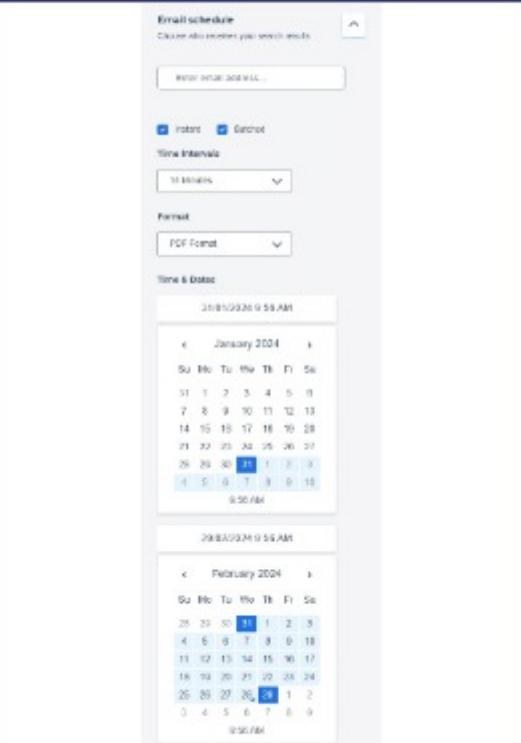
Empathy Map: Messages

Relevant Image



Empathy Map: Email Schedule

Relevant Image



SAYS

"It is important"
"Very easy... straightforward"
Time intervals "think you've got plenty of options here"
"I'm not sure you get a warning when your date is run out"

THINKS

Many users Would like a reminder that the query is running out	Thought queries end when it reaches the end of the emailing schedule	Self populated year view, when you set up queries cover several weeks/months. Hard to visualize time span.
Suggestion of an alert on screen that query is about to expire	Would like to see status of all queries at a glance. Easier to manage	Expires within 2 weeks, 1 month etc. Gives leeway to act (annual leave, if nothing happens they can shut it down)
Would want report intervals shorter than 15 minutes	Instant and batched reports have different formatting - prefers the batched format	It needs to be more obvious that the calendar is clickable - more prompts to show it's interactive

DOES

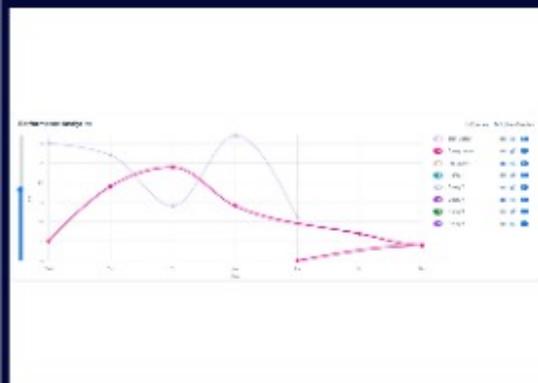
Uses it to generate reports first thing in the morning
One user uses 'batched' filter on a daily basis
One user uses 'Instant' for extreme words/ specific threats or hashtags
One user has their reports sent to their mailbox and inputs the email address for specific officers who will review the reports

FEELS

Irritated when you have to click to open the drop down for email schedule
Confused about the End time - It should be the same as start time.
Confused about the wording of the 'instant' and 'batched' options

Empathy Map: Line Graph/Homepage

Relevant Image



SAYS

"It just looks messy"

"Seems too busy"

"It's quite a busy page"

"don't need disabled if you are not particulary interested in it"

"I love all graphs"

THINKS

Many users think the homepage is messy for the graph to be noticeable

Would like a customisable homepage

News and Webinar could be in a seperate page/tab, or icons

Thinks the training videos on the homepage are a good idea

Finds the options in the hamburger navigation unnecessary because it's a duplicate of the sliding carousel at the top of the page

The line graph shows a summary of the disabled queries which makes it hard to see and focus on the enabled queries insights

DOES

One user glances over the graph on the homepage

Doesn't really use the line graph

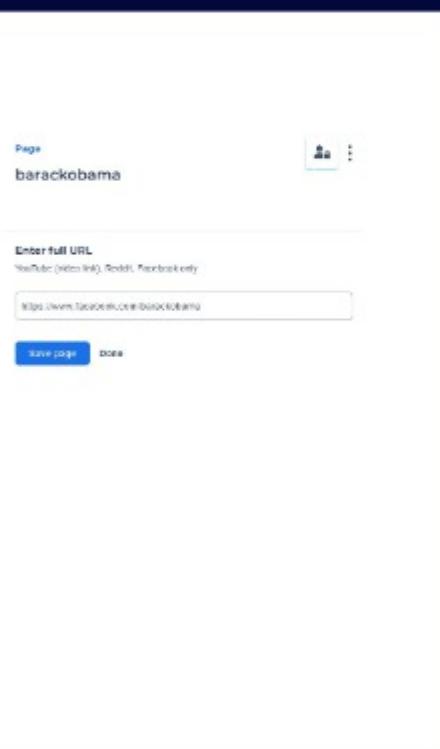
One user goes straight into whatever COSAIN product they are using

FEELS

Confused on what the graph is doing/shows

Overwhelmed

Empathy Map: Page Settings/ Account Settings

<h2>Relevant Image</h2>  <p>A screenshot of a web interface for managing accounts. At the top, it says "Page" and "barackobama". Below that is a section titled "Enter full URL" with instructions "(YouTube video link), Reddit, Facebook only". A URL "https://www.firebaseio.com/.json?obscure=true" is entered into a text input field. At the bottom are two buttons: "Save page" and "Done".</p>	<h2>SAYS</h2> <p>Don't understand the difference between an account and a page</p>	<h2>THINKS</h2> <p>Would like a preview pane that tells you that they have found a positive match for the accounts on the source that are listed (like what my name). Confirmation that you are looking for the right person.</p>
	<h2>DOES</h2>	<h2>FEELS</h2> <p>Confusion about the difference between a page and an account</p> <p>Unsure how to use it, use all by default</p>

Empathy Map: Cloudview

Relevant Image



SAYS

"It's fun
but it's not
useful"

"Personally quite like it as I am a visual person"

"It looks nice
but it's not
something we
would use"

"It can be useful but just depends on where it sits"

"It would be useful... good to have a reminder that it's there"

"It's not something that I tend to use"

THINKS

Would be
of more
use in the
report

One user doesn't feel like cloudview would be useful in the reports as the tables are already there

Would be useful if you could click each word and it shows the relevant posts

Would like if it gave context to the post or potential phrases to consider or exclude

DOES

Does not
really use
it

Focuses on the posts and their content rather than frequency of terms picked up

FEELS

Confusion about the meaning of the colours



Kirsty Nguyen
Junior Data Analyst

Demographic and environment

- Age: 23
- Lives in Birmingham, Midlands
- Experience in the field: 2 years

Desk Setup



Works from home on a laptop with an external display. Due to the nature of their work, they often have multiple tabs open so they can cross-reference and log events into an event log for the COSAIN bureau service.

Attributes

Meticulous	Problem solving
Media aware	
Multitasking	Adaptable

Time spent on creating queries

"When you're doing the query builder, you have to insert every single term manually... it takes ages to put the terms in"

Filtering irrelevant data from the reports

"With the e-mail report it's gives all data that we collected. So even if it's not useful, everything will be in there."

Goals

- Build data skills and be promoted
- Successfully sell COSAIN licenses to new clients and customers

Challenges

- Manually checking COSAIN when the email pdf reports are not received.
- Creating queries: Can be time consuming to upload new terms in Query Builder
- Logging event log: takes hours to analyse data from multiple reports and log them into an excel document
- High volumes results in lots of reading
- Filtering through relevant posts can be time consuming and tedious
- Navigating through the COSAIN system is not intuitive (no back buttons)

Tasks

- Accurately log protest and relevant events into an event log
- Create a visually pleasing weekly report of events of interest
- Create proof of concept queries for potential COSAIN clients
- Manage and edit existing queries to maximise results
- Create dashboards using PowerBI based on COSAIN data insights

Too
busy, too
crowded

Homepage
too messy for
the graph to
be noticeable

Confusing
for no
frequent
users

News and
Webinar could
be in a separate
page/tab, or
icons

Confusing
for non
frequent
users

Would love the
option to be
able to
customize the
page.

Doesn't like
that an other
page opens for
each product.

When navigating to
some of the app,
you can see the log
in page again.
Confusing why log in
is happening again.
Cluny.

See COSAIN as
ONE product and
QB, FP , Searchet
etc are
functionalities of
this product



Would use most sections, to filter query

All sections seem valid

Not sure if using them correctly; believes it is lack of understanding as to how things work.

Could be more descriptive

Where section starts and ends in hard to see

Areas could be colour coded, would help to guide you as you build the query

Could have icon of visual guide to identify each section

Not sure if you need all these sections. Super user thinks that this can be a bit overwhelming. When he explains it to other people, they always seem confused

Not intuitive enough

Confusion about the use of quotes, double quotes. Sure be more intuitive.

Could look punchier, it is a bit of a blur, the section blends into each other

Other users are fine with it.

User Persona: Kirsty Nguyen

Goal: Filter through relevant posts on the reports

User Journey Map

Action	Check report schedule	Open Report	Analyse Report	Analyse Relevant Post	Complete Event Log
Task List	Tasks: A. Open 'Rota' Excel document B. Check who's turn it is to complete the report	Tasks A. Open outlook B. Find the relevant report in inbox/folder C. Open the PDF Report	Tasks A. Read and analyse 'matched on' terms B. Check for relevant post under the correct term C. Click link to view post in source	Tasks: A. Screenshot post (if necessary) B. Copy post link C. Copy post image link (if necessary)	Tasks: A. Log post information into event log B. Paste screenshot into Powerpoint report (if necessary)
Painpoints/Feelings	Feeling: Focused, Prepared	Feeling: Focused, Prepared	Feeling: Overwhelmed, Tired, Bored	Feeling: Slightly interested, Focused, Tired	Feeling: Overwhelmed, Tired, Bored
Improvement Opportunities			<ul style="list-style-type: none">Ability to select and share only relevant posts from reportAccessibility: Have to zoom in to readAccessibility: Colours are difficult to read	<ul style="list-style-type: none">Ability to view image on the report	<ul style="list-style-type: none">Create an export excel file of details of relevant posts



Could be
more
colourful

Could have better
distinctions
between the pills
besides the
symbols

No other
challenges
raised about
this section

Difference
between and
account is
unclear to all

Page

barackobama



Enter full URL

YouTube (video link), Reddit, Facebook only

<https://www.facebook.com/barackobama>

Save page

Done

Difference
between and
account is
unclear to all

Section 3

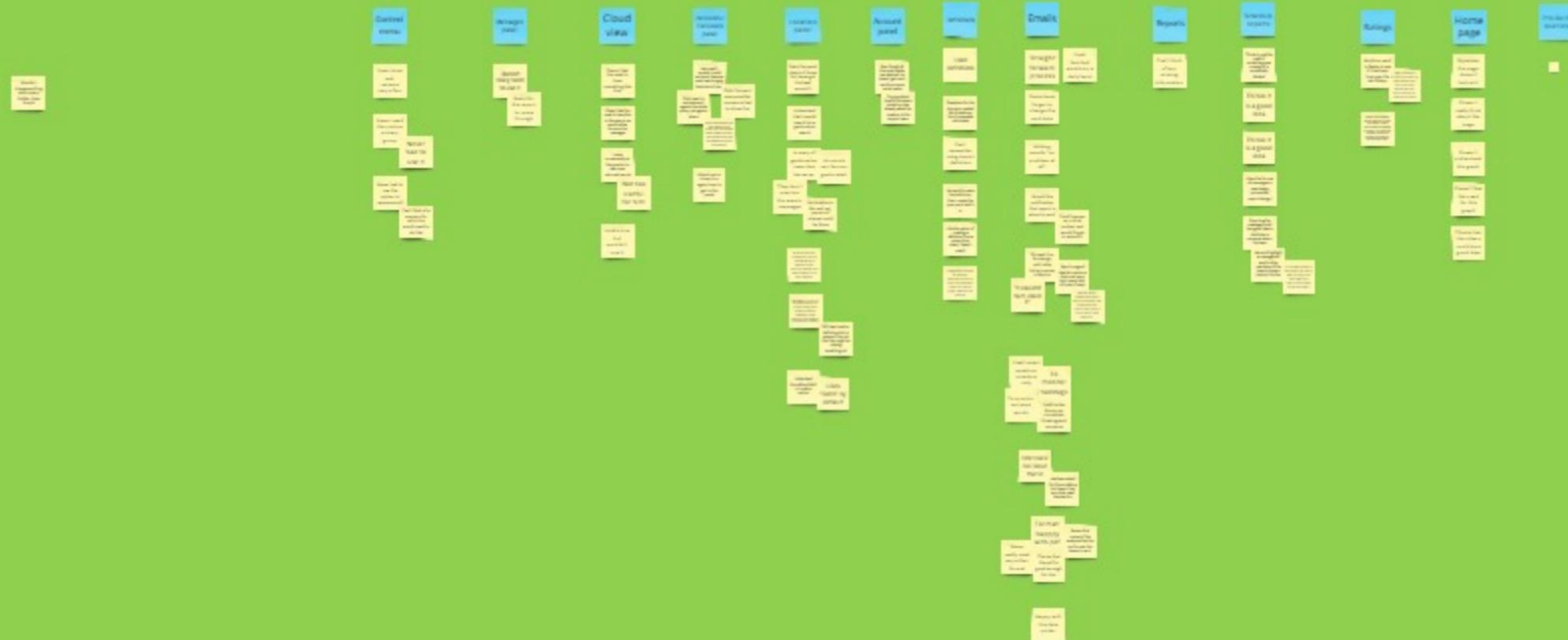
Introduction

1000

- [Public](#)
 - [Private](#)
 - [Public AP](#)
 - [AP](#)
 - [SSID](#)
 - [WPA2PSK](#)
 - [Advanced mode](#)
 - [WPS](#)
 - [IP](#)
 - [Probes](#)
 - [Policy](#)
 - [Learn](#)
 - [Zero](#)
 - [L4LB](#)
 - [Antennas](#)
 - [Radio](#)
 - [Logs](#)

Would like a preview pane that tells you that they have found a positive match for the account on the source that are ticked (like whatsmynname). Confirmation that you are looking for the right person

Not sure
how to use
it, use all by
default



SEARCH SKILLS NEW YORK

ABOUT

ARTICLES

SEARCH TUTORIALS

SEARCHERS

SEARCHERS

Some confused about why you have inclusions

Most participants have not tried to use that panel

Exclusions functionality make sense to have and they can see the usefulness on occasion

For most of user group, not sure what the difference is between exclusion at term level and at query level

The words "Inclusion" and "Exclusion" are not the most meaningful

Super user sees the benefit of having exclusions at term level

Not sure about about the difference between exclusion on pills and exclusion in query

Super user, understand the difference between the 2 and see usefulness

Empathy Map: Scheduled Reports Repository/ Inbox

Relevant Image	SAYS	THINKS	DOES	FEELS
	<p>"I think it is a good idea"</p> <p>"Associate a folder with yellow"</p> <p>"I would use it; it looks a very neat and easy to use folder"</p> <p>"Could be useful if something goes missing or is accidentally deleted"</p> <p>"That would be useful!"</p> <p>"That sounds excellent"</p>	<p>Ability to add a one line note could be useful</p> <p>(Unread/Read) Unfavorable, creates an admin duty</p> <p>(Unread/Read) Unfavorable, as this creates a sort of pressure to open the files</p> <p>Thinks it would be useful to share the query and the report in a group</p> <p>Like to be able to see the time span ie 4h, 8h etc but would like to see the start and end date/time set up by user</p> <p>(Sort by) Would rather make this functionality customizable</p> <p>Some can see the benefit of marking a report as read and by who</p> <p>Some people will read the email but won't be marked as having read the report</p> <p>Make it more a repository than an inbox, to remove the admin responsibility of managing reports</p>	<p>Currently has mailboxes in emails to sort reports</p> <p>First thing they do in the morning is check their emails</p>	<p>Overwhelmed - (specifically policing) already many systems they have to log in and check, so viewing reports on COSAIN feels like an extra task</p>

Empathy Map: Reports

Relevant Image

Old reports

New reports

SAYS				THINKS			
"The text... you have to maximise it all the time to read it"	"It's nice and clear!"	"It's kinda weird how you have a sentiment analysis but it does not have the colour coordination in the social media comment"	Matched on: "The first thing I look at"	Focus should be on body of text	There is a lot of text to read, lots of messages to go through, they want the focus to be attention on the text, rather than the content info.	Some users would like the Cloud view in the report	Users think selecting individual posts would be useful
Sources: "I think this is a better format"	"It's a lot better in terms of readability"	"Not really neat"		Ability to select and export posts (in pdf) is very positively welcomed	Would like to drag and drop image, photo to email or word documents and reuse and export or forward to someone.	Finds the colours hard to read against the white background	Likes the report schedule and who set it up at the top of the page
"Takes up the entire space... easier to read"				Would like to comment on reports useful: "I understand this and think the information is interesting I found some interesting information there"	Would like to find information in graphs is useful	Duplicated social media logo between posts in report is unnecessary	Finds the colours of the graph awkward - hard to pay attention to what's important.
				Would like to click post links in the MET police email system	Headers are not needed on every page	Graphs are less busy and easier to read	Would like to interact with the reports within COSAIN

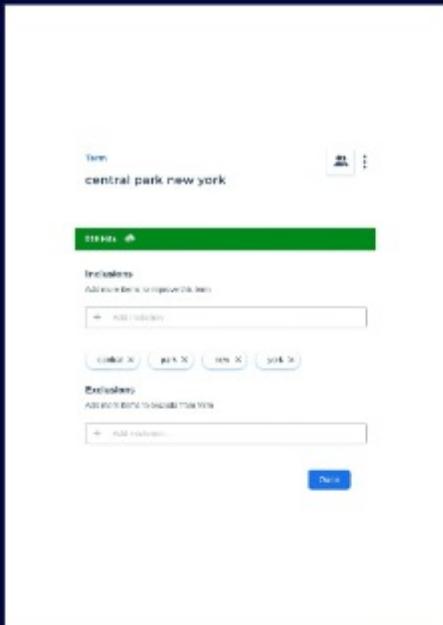
DOES

FEELS

Have to zoom using Ctrl +Z to view the text	They screenshot, snip part of the report and paste it in their own report	They use this in their reports as proof that they have received a specific information about an event
If something relevant is found, they will create their own template, report and use it to brief their command team	Pays attention to the content rather than the graphs	

Empathy Map: Inclusions and Exclusions

Relevant Image



SAYS

"Having inclusions is confusing"

"Need to have that functionality"
- inclusions

THINKS

Some users think the inclusions and exclusions is a replica of the queries inputted

Some users see the benefit of having exclusions at term level

The words "Inclusion" and "Exclusion" are not the most meaningful

Would benefit from having pointers that explain what inclusions and exclusions do

DOES

1 user uses exclusions on specific terms

1 user experiments with inclusions and exclusions

FEELS

Confusion on the purpose of 'inclusions'

Confusion about the difference between exclusion on pills and exclusion in query

Confusion about 'contains' and what it means



Geo is useful

Not a lot of usage from most of group

Aware that most people don't use geo but still find it useful especially with snapshot

Map functionality useful but limited

Would like to be able to follow a route for a procession

Other user likes the box so far, haven't had any issue

Clunky

Wish he could freely create the shape instead of having a pre-created shape

Obscured, should be somewhere more prominent

Should be spread across screen, use more screen space

Fiddly, scroll bar too narrow



Nicola Cumberbatch
Intelligence Researcher

Demographic and environment

- Age: 33
- Lives in Vancouver, Canada
- Experience in the field: 9 years

Desk Setup



Has a hybrid role, works from home 2 days and at the office 3 days. Often has multiple tabs open and uses a monitor to conduct open-source research online better. She is visually impaired so reading small text is difficult.

Attributes

Media Aware	Attention to detail
Problem	
Collaborative	

Dedicated	Multitasking	Analytical
-----------	--------------	------------

Importing terms from an external source into COSAIN

"When you have a long list of terms it would be useful to be able to import them from the spreadsheet"

Goals

- Build strong working relationships with colleagues, other intelligence professionals
- Take a cyber-security course to build subject matter expertise
- Train and mentor junior professionals in the field

Tasks

- Creating queries using relevant terms to maximise results
- Gathering data from various open and closed sources
- Developing intelligence on posts of interest and noticing patterns and trends
- Identifying potential threats and vulnerabilities
- Compiling reports and summaries digestable for senior leadership and decision makers

Font size on the reports

"The text... you have to maximise it all the time to read it"

Challenges

- Font size on the reports is small, frequently has to zoom in to see data clearly.
- Manually adding terms into new queries can be time consuming
- Has to manually filter out rogue/unuseful results to share relevant posts with senior leadership
- Has to google synoyms of words to add to queries which is time-consuming
- Confused on what inclusions and exclusions does

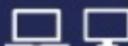


Lydia Smith
Open Source Investigator

Demographic and environment

- Age: 41
- Lives in Somerset, England
- Experience in the field: 17 years

Desk Setup



Works from home on her laptop and monitor. Often has several queries running for her team and other MET teams. Is visually impaired.

Attributes

Media Aware	Attention to detail
Problem	Collaborative
Dedicated	Multitasking

Accessing the reports in COSAIN through LongArm

"It'll certainly be easier as you could then go through the report and click on all the URLs... I can't do that when it's on the Met Police e-mail system."

Schedule email reports timeline finishing

"I'm not sure you get a warning when your date is run out"

Goals

- Be promoted to a senior open source investigator
- Train and mentor junior professionals in the field

Challenges

- Police email system does not allow clicks on external links, making view the reports via emails time-consuming
- Font size of reports is too small
- Confusion on functionality within COSAIN e.g. 'from' 'about' 'both' filters in the location panel.

Tasks

- Creating queries using relevant terms to maximise results on behalf of the investigation team or other teams
- Gathering data from various open-source platforms
- Developing intelligence on posts of interest and noticing patterns and trends in posts
- Tracking major incidents using social media
- Producing reports based on insights from research



Paul Knight

Senior Intelligence Analyst

Demographic and environment

- Age: 53
- Lives in Gloucestershire, South West
- Experience in the field: 15 years

Desk Setup



Works from the office 1 day a week and remotely 4 days a week. Uses a laptop and monitor in his daily work as he sorts through lots of posts and reports

Attributes

Problem solving

Dedicated

Analytical

Hardworking

Patient

Media aware

Creating a new query

"I have to keep in mind that it's the little plus button in the search box... not intuitive"

Forgetting scheduled email report timeline

"Sometimes I forget to change the end date...maybe a reminder that is generated to say. 'your query is due to end next week' ."

Goals

- Have a better work life balance
- Aiming to be promoted to Chief Intelligence officer
- Advanced education and certifications (CISSP)

Challenges

- Missing reports as he forgets to update the email schedule when they run out, leading to issues at times.
- Creating a query: not particularly obvious where to create a new query
- Renaming a query: not particularly obvious
- Confusion on functionality e.g. inclusions

Tasks

- Coordinating and tasking team to find relevant information
- Reviewing and conducting quality assurance on research provided
- Presenting results from research and insights
- Overseeing the general function and direction of the team



Not enough explanation as to what is being search (valid on all aspects of the application)

Unsure what has geo and has media mean.

Never tried to use has geo / has media



Most don't
create
definitions

Difficult to
read on a
small
screen

Thinks ahead of
what definition he
wants to create
then goes and
create them

Mention that he
is aware that
the definition
can be created
from the query

Not easy to do (didn't
ask follow up question
as to why, I assume
that he wants to create
them on the fly, directly
from the query.

Would like
ability to right-
click and
interact with
pills

Would like to
add a definition
to a query from
the definition
panel.

User Persona: Nicola Cumberbatch

Goal: Add terms efficiently into a Query

User Journey Map

Action	Login to COSAIN	Navigate to Query Builder	Open Relevant Query	Open a Query Term	Add a term to a Definition
TASK LIST	Tasks: A. Enter username and password B. Land on COSAIN Homepage	Tasks: A. Click hamburger navigation B. Click Query Builder	Tasks: A. Scroll through 'all' queries B. Click relevant query	Tasks: A. Click desired Query term pill	Tasks: A. Press down arrow next to terms B. Type new term in search bar C. Press enter
PAINPOINTS/ FEELINGS	Feeling: Neutral	Feeling: Neutral, Slightly overwhelmed (busy homepage)	Feeling: Neutral	Feeling: Neutral	Feeling: Confused, Lost
IMPROVEMENT OPPORTUNITIES				+ Maximise term bank space so terms are more visible	+ Have an add button or 'new term' button that lets you input a new term + Have an import button that allows users to import from excel new terms

User Persona: Lydia Smith

Goal: Open links on the reports

Action	Open Report	Analyse Report	Open LongArm	Analyse Relevant Post	
Task List	Tasks A. Open mailbox B. Find the relevant report in inbox/folder C. Open the PDF Report	Tasks A. Read and analyse 'matched on' terms B. Check for relevant post under the correct term C. Copy link to view post in source	Tasks: A. Minimise report B. Open Longarm B. Type/Paste the link of the relevant post	Tasks: A. Review post and context B. Screenshot post (if necessary) C. Copy post image link (if necessary)	Tasks:
Painpoints/ Feelings	Feeling: Focused, Prepared	Feeling: Overwhelmed	Painpoint: Cannot paste in Longarm and cannot open links on MET email server	Feeling: Focused, Interested Feeling: Irritated	
Improvement Opportunities		<ul style="list-style-type: none">• Change the colour of the graphs on the first page• Maximise the space• Make more sleek	<ul style="list-style-type: none">• Have reports available in COSAIN	<ul style="list-style-type: none">• Ability to select and share only relevant posts from report	

User Persona: Paul Knight

Goal: Receive a reminder to when schedule cycle is due to be over

User Journey Map

Action	Check emails	Open Query Builder	Open Relevant Query	Review Email Schedule	Edit Email Schedule Details
Task List	Tasks A. Open mailbox B. Search for the relevant report in inbox/folder C. Open COSAIN and log in	Tasks: A. Land on homepage B. Click hamburger navigation C. Click Query Builder	Tasks: A. Scroll through 'all' queries B. Click relevant query	Tasks: A. Scroll down to email schedule section and click down arrow button B. Review email report receivers (email addresses) C. Review email schedule end date and time	Tasks: A. Edit email report receivers (if necessary) B. Change end date, date and time on the calendar
Painpoints/ Feelings	Painpoint: Didn't get notified that the email schedule cycle had ended Feeling: Confused, Annoyed	Feeling: Irritated, Determined to resolve	Feeling: Determined to resolve	Feeling: Irritated, Relieved to know the cause	Feeling: Relieved, Slightly Irritated
Improvement Opportunities	<ul style="list-style-type: none">Email reminder that it has ended or it is ending		<ul style="list-style-type: none">Visual onscreen reminder that it is ending (e.g. it turns red with a warning symbol that it is ending)Email schedule in a more obvious place		<ul style="list-style-type: none">Onscreen confirmation that something has been changedEmail notification that something has been changed

Would like to have more colours on the design

SuperUser thinks it is a really good idea.

Interest in sharing the query and the report in group

To make sure that everything is not relying on one person, annual leave.

Benefit: look at report even when you are away

Great idea can go in there and email person who didn't get one of the reports

I like to have some sort of inbox system, this way people can see what's been sent to them and what's been received and what's been opened

First thing they do in the morning is check their emails

Eg: this contain an event that we escalated

Want note section

For example mark a report as more important than others

Ability to add a one line note

Sort by Read/Unread

Some can see the benefit of marking a report as read and by who

Make it more a repository than an inbox, to remove the admin responsibility of managing reports

Unfavorable, Read and Unread creates an admin duty

Unfavorable, as this creates a sort of pressure to open the files

Would rather make this functionality customizable

Who's duty it is to go a read the report and mark them as read

Some people will read the email but won't be marked as having read the report

Caveat: most people would not have access to this as they would still receive emails

Some people would like to only use the email

First thing they do in the morning is check their emails

They have so many other systems to log into, that would be one more to go in and check

User has to maximize the text of report to read it

Would like text to be bigger and easier to read.

Other information is ad-hoc

Difficult to read. Must do

Ctrl +Z to zoom in all the time

Focus should be on body of text.

Text is quite small

Give more importance to text in message

There is a lot of emails read, lots of messages to go through; they want the focus is attention on the text, rather than the context info

They screenshot, snip part of the report and paste it in their own report

Reports are usually emails

Then the person from the relevant area can do some research on the event

If something relevant is found, they will create their own template, report and use it for later their community teams

If it is sentiment based and check the sentiment themselves

Then when relevant send it the local team them to look in the issue

The local team will assess community impact

Reiterate that they would like the Cloud view in the report

Information in graphs is useful

Ability to select and export posts (in pdf) is very positively welcomed

Would save them from creating a report

Would help to be able to select as nothing "I forwarded this and that to the command team because I found this interesting information in there"

Would like to drag and drop image, photo to email or word document and use and export as forward to someone.

Would like to right click to achieve the same

Would save to copy/snip and paste

Empathy Map: Sources

Relevant Image



SAYS

"Seen it but never used it"

be more "explanatory about where and how its bringing that data from that source"

THINKS

Think it will be useful to have descriptions of what things are when you "hover over them"

Would like more sources that do not require signing in

DOES

Most users select all social media sources

Some users do not use the 'has geo' or 'has media' filters

FEELS

Confusion about what 'has geo' and 'has media' is and does

Empathy Map: Query Builder new design draft

Relevant Image

Folder Structure

Email Schedule

Livefeed

SAYS

"The option to have the function is a good idea"

"compel people to start organizing in a way that may not need to"

"Gives better idea of "volume of time""

"I don't think we personally would use a weekly report...but to have a few more options would be good."

"Gives better idea of "volume of time""

"it is handy to have"

"I do like that... its creates a backlog on the system"

Should be optional

THINKS

Calendar view of the year, to visualize begin and end in one go

Would find the option to organise folders manually useful e.g. by location

Wants the system to give feedback on queries

No need end-time/date when frequency is set up

Being able to export to excel to filter through data on there would be useful

Some users didn't know the live feed was available

Frequency: Would like to have weekly report, bi-monthly/2 days or 3 days

Can be erroneous as the messages can show while the query is still being built

Like the idea of a save/run button to confirm that the query so you know that messages are going to come through

DOES

1 user uses livefeed when an event is going on in the control room to monitor events

FEELS

Frustrated Enabled query is not showing as enabled. When a query is enabled, messages are not coming through and they don't know why

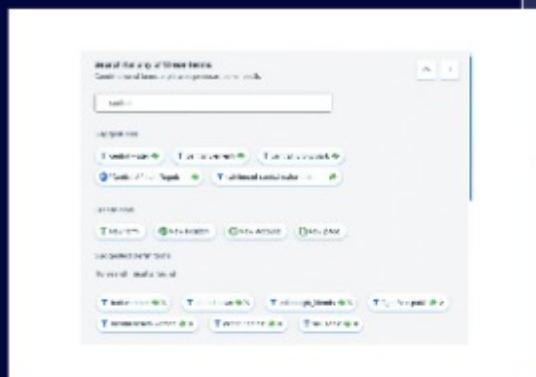
Confused about knowing that they have to enable the query at the end

Confused about knowing when they have successfully created a query

Unaware/Frustrated as some users didn't know the live feed was available

Empathy Map: Definition

Relevant Image



SAYS

"On a small screen it difficult to see"

"Takes ages to try put terms in"

"Having that organisation is super useful"

"have to press back on your browser"

DOES

1 user thinks ahead of what definition he wants to create then goes and create them

Majority do not create definitions

THINKS

Some users don't like the structure of the pills as it is difficult to read on a small screen especially when there are several

Would like to add a definition to a query from the definition panel.

Would like more categorisation options e.g. owner of query

Would like to drag and drop queries into relevant definitions

Would like ability to right-click and interact with pills

Would like the options of more languages

Would like an import functionality or automation to make creating definitions more efficient

Wishes it was easier to delete duplicated pills

Finds it hard to navigate through the system - would find it beneficial to have back buttons

FEELS

Empathy Map: Suggestions

Relevant Image



SAYS

"Would be really helpful if I type a word and there would be a list of generated synonyms"

"Nothing is
standing
out"

"It could
be more
colourful"

THINKS

Could have better
distinctions
between the pills
besides the
symbols

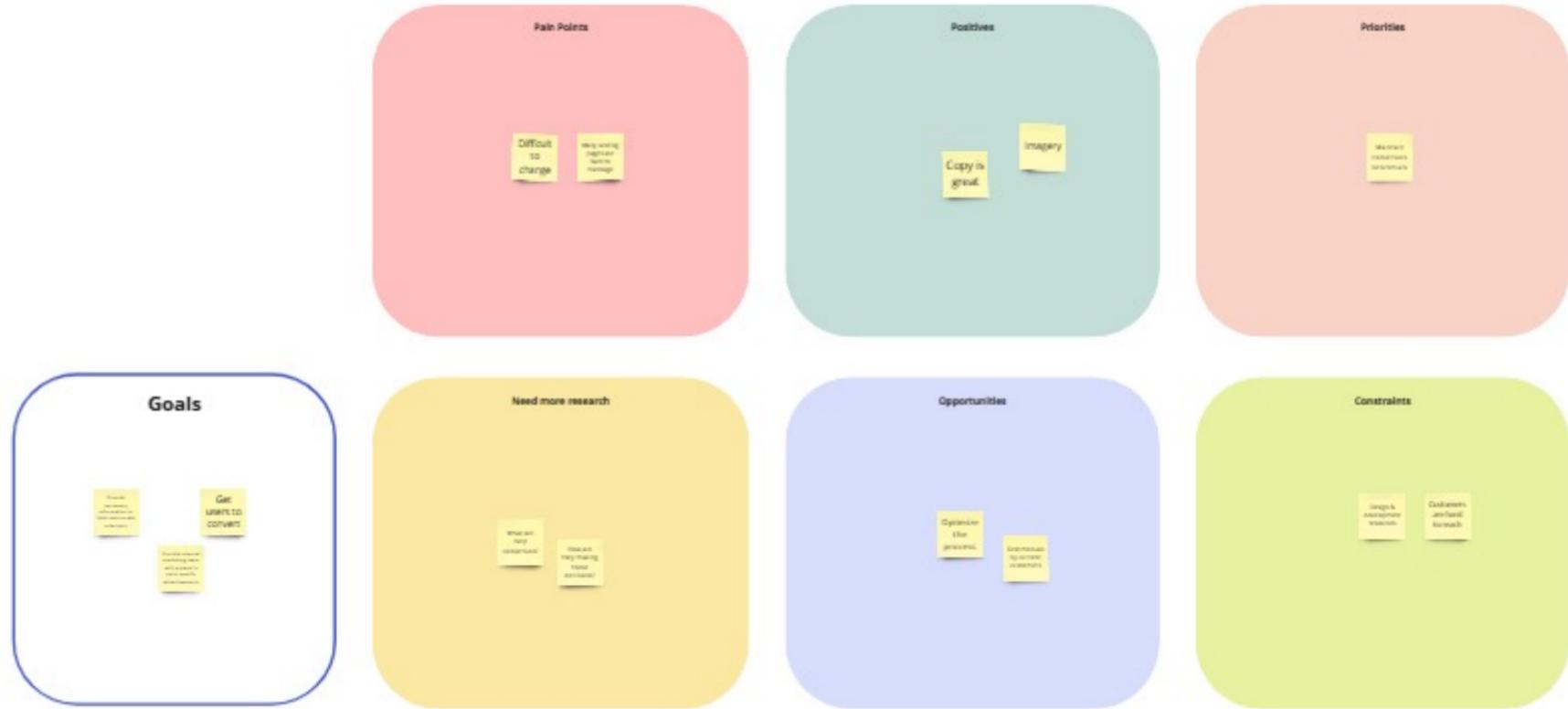
DOES

Select relevant
suggestions
when they
appear

FEELS

Uninterested in
the visual
elements - not
emphasising the
suggestions
enough

Messages



Prebuilt
queries
would be of
massive help

"A simpler
approach from
the outset is
going to please
a lot of people"

In high-pressure
environments, people
uncomfortable with
the system may try
to overcomplicate
the queries they
build

Huge
win Good
idea

Folder structure

Would like to not be forced to put queries in folders.

Could compel people to start organizing in a way that may not need to

Like to be able to organise it for yourself.

For example organise in area codes or locations

That would help

Organise in operation names

Organise name variations of a person

Email schedule on the side

Every 2, 3 days

No need end-time/date when frequency is set up

Calendar view of the year, to visualize begin and end in one go

Granular might tell users that they get a lot of data than they probably are realising at their query currently

Would like more options than the ones proposed

Frequency: Would like to have weekly report, bi-monthly

Gives better idea of "volume of time"

Can use this need for a report every 10 minutes, but thinks it is an unlikely scenario

Anything lower than 15 minutes, they would just be looking at the live feed

Live feed

Useful to monitor live events in control room

Not something that you would need all the time

Can be a distraction

Can be an irritation as other messages can show while the query is still being built

Can be a distraction as other messages can show while the query is still being built

Should be optional

Like the idea of a button but to confirm that the query is produced that message user going to come through

They don't know when they are done creating a query

They don't know that they have to enable the query at the end

Would like to be prompted that you may have missed a section.

EG "if you don't fill this in, this will happen"

Would like to have more feedback about what is going on (pop-up)

Maybe highlight boxes that are empty/not filled in, for less frequent users