



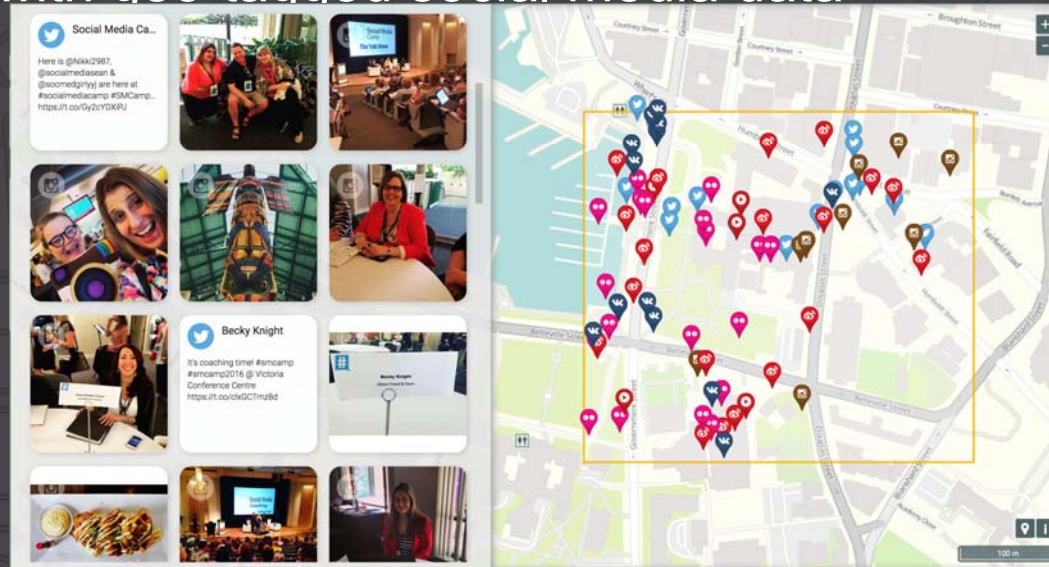
Up to Date Social Context Makes You See the World Differently

Mike Anderson
Echosec
□ @mike0x41



Who Am I?

- Mike Anderson
 - @mike0x41
- COO @ Echosec Systems
 - @echosec_search
- We work with geo-tagged social media data





What Is a Tweet / Facebook Post / Etc.



Jack 
@jack

 [Follow](#)

just setting up my twttr

12:50 PM - 21 Mar 2006

  86,511  65,673

Status + User



What Is a Tweet / Facebook Post / Etc.

Status:



API
Data:

```
"created_at": "Tue Mar 21 20:50:14 +0000 2006",  
"id": 20,  
"text": "just setting up my twttr",  
"entities": {  
  "hashtags": [],  
  "symbols": [],  
  "user_mentions": [],  
  "urls": []  
},  
"source": "...Twitter Web Client...",  
"coordinates": null,  
"place": null,  
"is_quote_status": false,  
"retweet_count": 86510,  
"favorite_count": 65675,  
"lang": "en"
```



What Is a Tweet / Facebook Post / Etc.

User

:



API
Data:

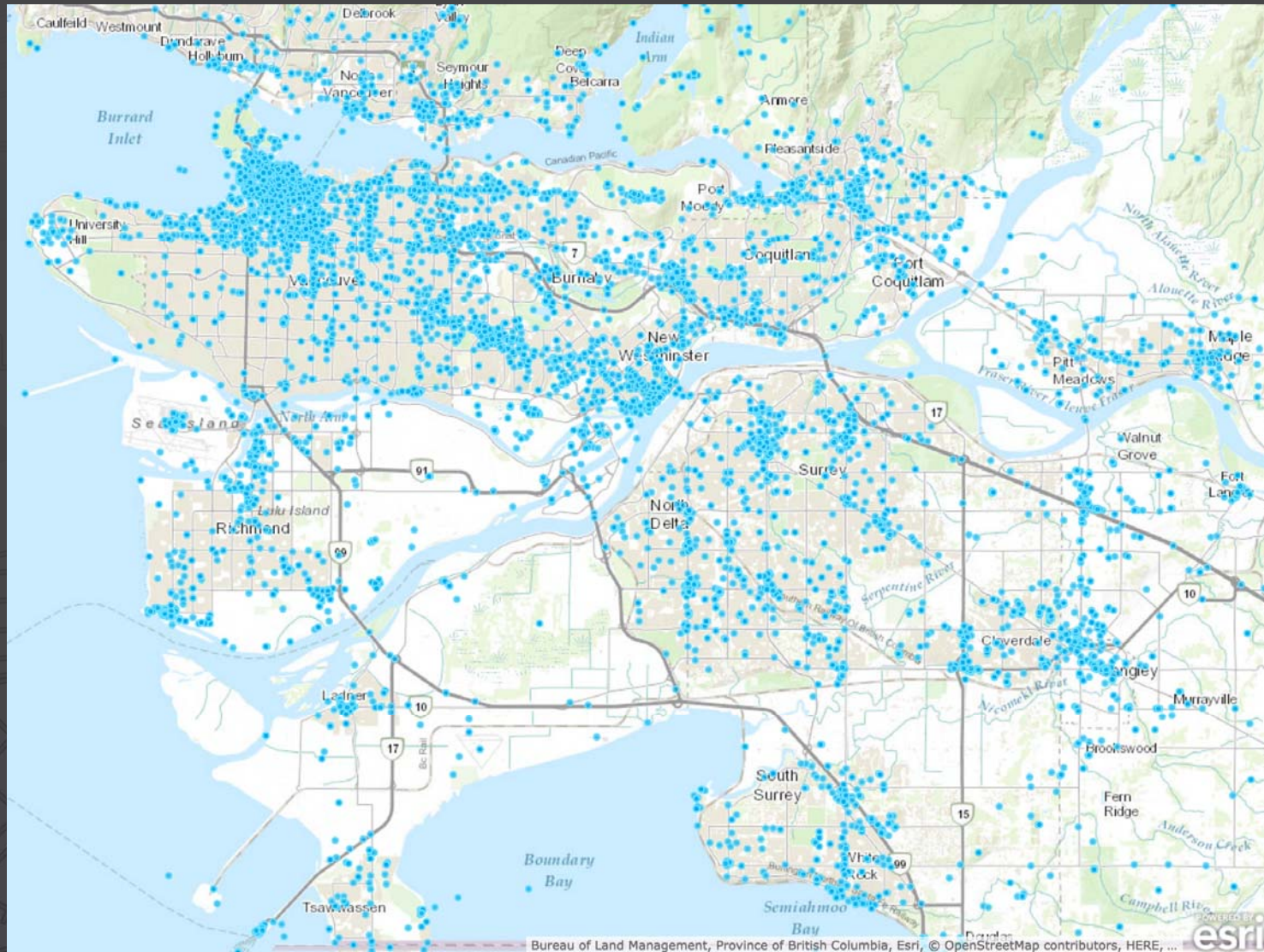
```
"name": "Jack",  
"screen_name": "jack",  
"location": "California, USA",  
"description": "#withMalala!",  
"url": null  
"followers_count": 3550889,  
"friends_count": 1950,  
"listed_count": 26193,  
"statuses_count": 19568,  
"favourites_count": 12744,  
"created_at": "Tue Mar 21 20:50:14 +0000 2006",  
"time_zone": "Pacific Time (US & Canada)",  
"geo_enabled": true,  
"verified": true,  
"lang": "en",  
"profile_image_url": "http://..."
```



Why should we care?



Geotagged Twitter Posts August 2015





Social Media is currently being used in

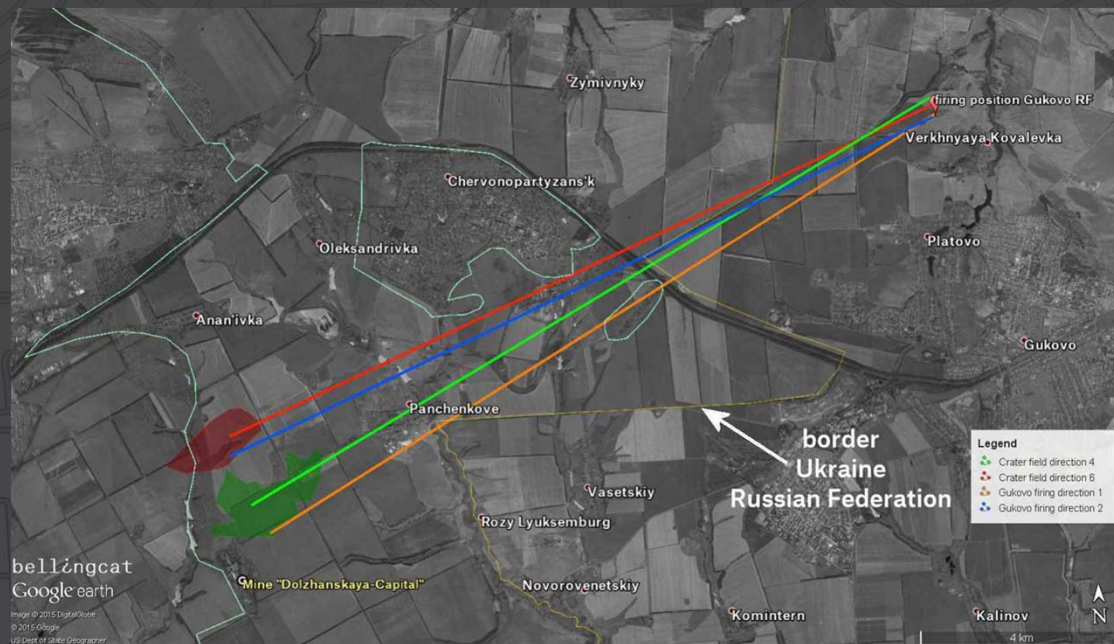
- Investigations
- Public Safety
- Counter-Terrorism
- Corporate Security
- Asset Protection
- Border Security



Bellingcat Report – Origin of Artillery Attacks on Ukrainian Military Positions in Eastern Ukraine

Between 14 July 2014 and 8 August 2014

- On 14 July 2014, accounts emerged in media outlets that clashes took place in the vicinity of a mine close to the Ukrainian town of Panchenkove.
- Satellite imagery following the event shows large amounts artillery fire that destroyed several electricity poles in the vicinity of the mine.





Bellingcat Report – Origin of Artillery Attacks on Ukrainian Military Positions in Eastern Ukraine

Between 14 July 2014 and 8 August 2014

- The Bellingcat investigation team analyzed pictures and videos shared on YouTube and VKontakte (VK),
- At least two attacks occurred on 16 July 2014.
- six videos show events on 16 July 2014 near Gukovo, Russia



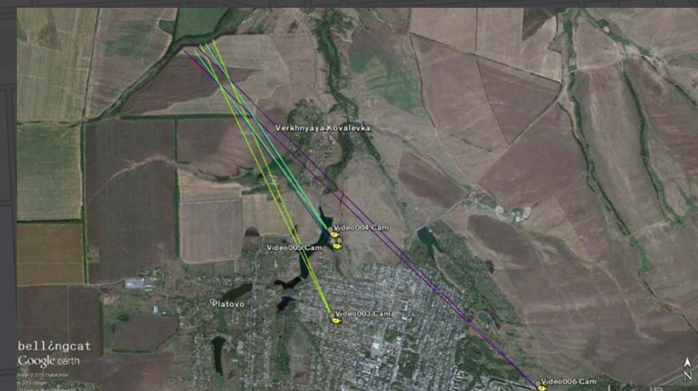
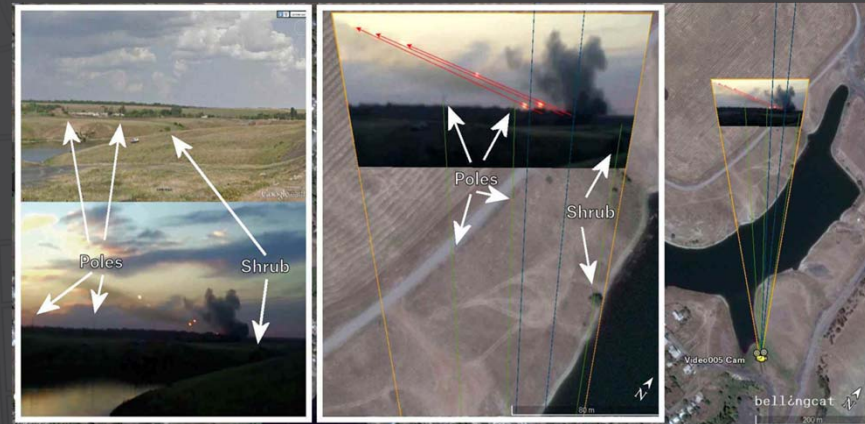
<https://www.youtube.com/watch?v=6ufW8UxbkPM>



Bellingcat Report – Origin of Artillery Attacks on Ukrainian Military Positions in Eastern Ukraine

Between 14 July 2014 and 8 August 2014

- Investigators used geo-location and landmarks in the videos to trace origin and direction
- Several videos to corroborate the local reports and the suspected firing location from the satellite imagery analysis.



<https://www.bellingcat.com/news/uk-and-europe/2015/02/17/origin-of-artillery-attacks/>



OSINT & Geospatial Intelligence

- Open Source Intelligence is a form of intelligence that is not going to disappear
- The spread of social media and camera phones, have given us the ability to create and send huge amounts of data all over the world almost instantaneously
- Yet it also allows private citizens to produce false and misleading information
- We can use Geospatial Intelligence techniques to help verify OSINT

Bellingcat – The Importance of OSINT misinformation
and Verification of Conflict Media



Public Safety / Law Enforcement

- 96% of police departments use social media in some capacity
- 80% say it has helped them solve crimes
- 73% of agencies said it helped improve police-community relationships in their jurisdiction.

INTERNATIONAL ASSOCIATION OF CHIEFS OF POLICE 2013 SOCIAL MEDIA SURVEY



#VicPDHelps



Victoria Police @vicpdcanada · 1 Jul 2015

Remember, non-emergency calls for service can be made at **#VicPDHelps**. Help us keep #yyjcanadaday a respectful celebration.





#VicPDHelps

Victoria Police Department
Public Affairs Social Media
Officer uses the Twitter
hashtag during large public
events to

- Receive incident reports
- Coordinate volunteers
- Disseminate information quickly to the public





#VicPDHelps



Tyler Black @tylerblack · 1 Jul 2015

#VicPDHelps some rowdies on Harbour Rd causing issues with people walking home. Across from Point Hope



Jessica @MsDirtyJ · 1 Jul 2015

@vicpdcanada #vicpdhelps left side of empress lawn, close to sidewalk
brunette girl in red top black shorts throwing up and passed out



S-coast @bestcoastwoman · 1 Jul 2015

Noise complaint at wharf street marina. Large sea ray ship blaring their tunes
moored on e finger #VicPDHelps





Thank you!