

Ukraine C-IED Project



Online Studio 3 Group 3

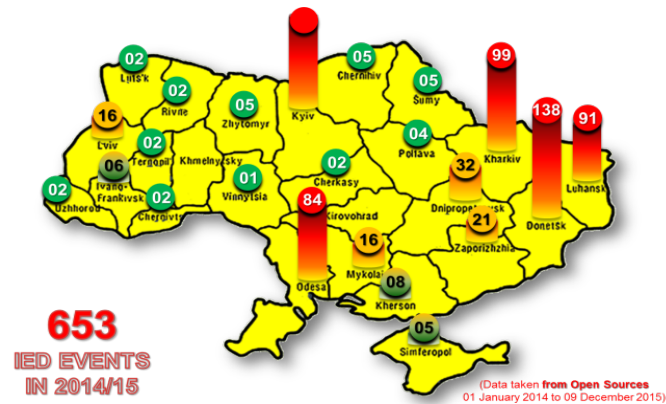
Valérie Lavigne, valelavi@gmail.com

Marius Panga, marius.c.panga@gmail.com

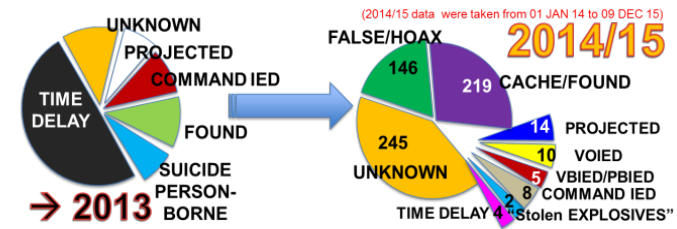
Jayaram Shivas Vadakumpuram, shivasj@gmail.com



Current Visualization



	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	TOTAL
IPF	15	11	12	24	50	26	31	14	28	33	23	44	56	42	42	41	36	29	35	33	07				668
ROF	5	1	0	3	8	3	0	2	2	3	1	6	8	0	15	2	1	2	2	2	3	0			68
WOF	44	9	0	5	18	14	0	7	13	10	25	13	5	4	3	7	4	0	8	2	2	0			195



TARGETS	BUSSINES	RAILWAYS	ROADS	GOVERNMENT	SECURITY	CIVILIANS	NO SPECIFIC
EVENTS	61	93	29	148	63	60	213

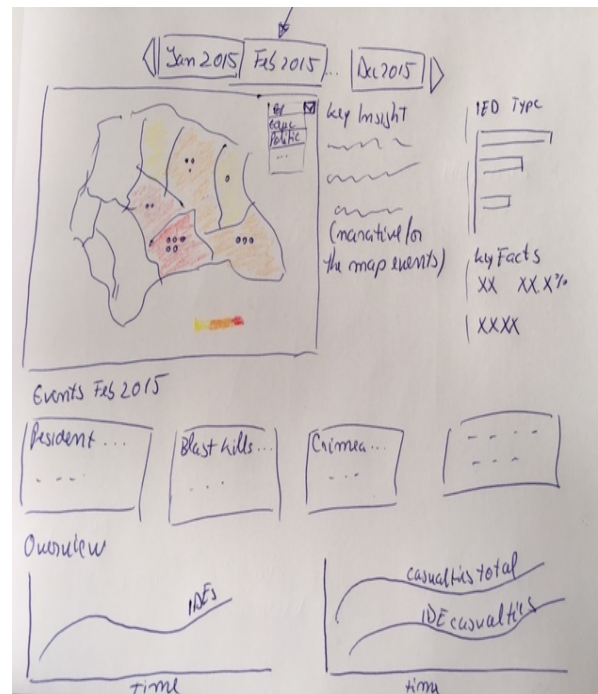
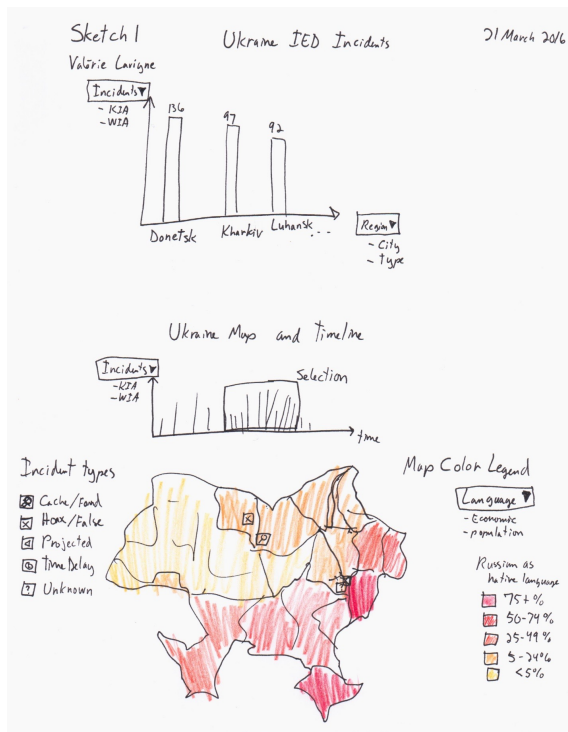
Goals

- Is there a temporal pattern in the number of IED incidents?
- Where are the IED incidents located within Ukraine?
- How do the incidents relate to the conflict in Eastern Ukraine? Is there a relation between the number of incidents and the distance to the conflict zone and the political situation?
- Do the ratios of incidents remain stable over time between the different regions? Do the incidents seem to move from one region to another?
- How does the rate of IED incidents relate to the total number of reported casualties and injuries?
- Do the different types of IEDs have interesting geo-temporal patterns?
- Is the number of incidents correlated with regional census data.
- Can we correlate any spikes or patterns in the data with political developments in the conflict (Crimea Annexation, agreed Ceasefire, Ukraine elections ...)
- Is there any additional insight that can be obtained from the free-text incident description field in the main data source?

Tasks

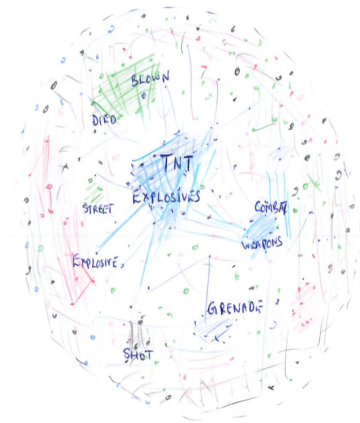
- **Data analysis:**
 - go over all the candidate data sources and selecting the bits of data that will be relevant to the project
- **Data gathering:**
 - while our main data source is already in a structured format, the additional sources are not(news articles, PDF files, images). This step involves getting all the relevant data into a structured format (txt or cvs files)
- **Data cleaning:**
 - make sure the data that has been identified as relevant is in a consistent format. Standardize the handling of incorrect or missing data, as well as any formatting issues
- **Data filtering:**
 - based on the data analysis outcome, remove any data that is needed for the visualization
- **Data model design:**
 - identify the JavaScript entities that will contain / reference the source data

Sketches



Full Text Viz of Ukraine IED Event Logs

- Shiny Jayaram
9/28/2016



TF-IDF Usage

Text Nodes positioned Using TF-IDF

650 Nodes

5800 Terms

Cache/Found (250)

Hoax/False (100)

Projected (75)

Time Delay (60)

Unknown (45)

Data

- Ukraine IED Incidents Data
- Ukraine Map Data – geojson/topojson
- Ukraine Census Data
- Ukraine 2010 Presidential Elections Data
- Ukraine Conflict Timeline
- Ukraine Conflict Casualties and Injuries Data