

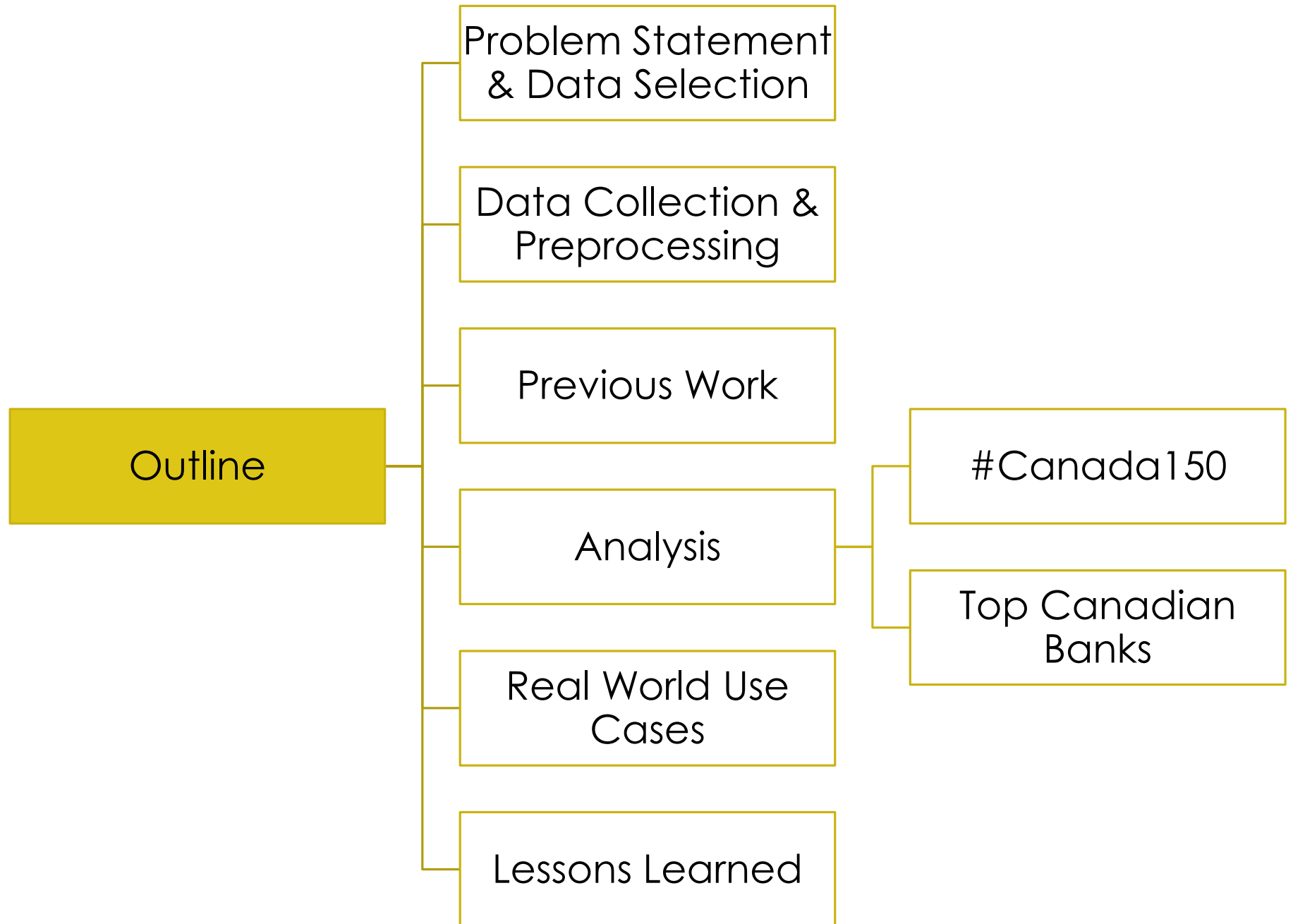
Canada's 150th Anniversary



CANADA 150

Analysis of how Canada and the top 5 Canadian Banks are celebrating Canada's 150th anniversary using social media (Twitter).

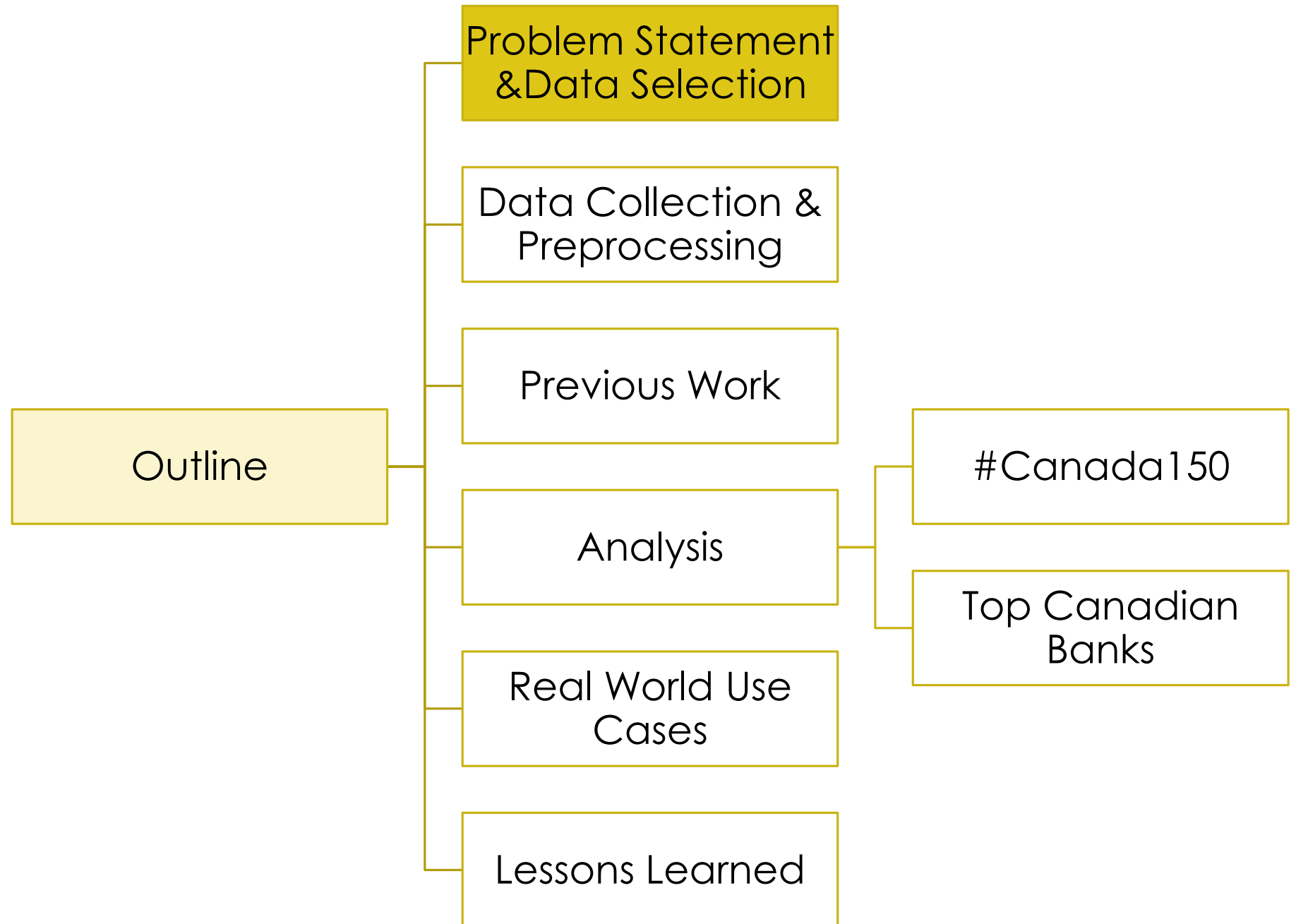
Presented by: Hira Fatima
April 5, 2017





KEYWORDS







PROBLEM STATEMENT

Text/Content
Analysis



Social
Network
Analysis



How Canada
and Top 5
Canadian
Banks are
celebrating
Canada's 150th
Anniversary

What kind of
people/organizations
are involved in this
network?

Who is leading the
network?

Who are the most
influential accounts in
this network?

How does the
network structure
look like?

Sub-Cliques?

PROBLEM STATEMENT

DATA SELECTION

Canada
#Canada150

Make the most of your Canada 150! [LINK](#)

TD BANK
#TDCommonGround

"We're celebrating Canada's 150th anniversary by supporting 150 grassroots initiatives. Join us by sharing and participating in the #TDCommonGround Project." [LINK](#)

RBC
#Make150Count

"Let's Make Canada's 150th Anniversary Count. Tell us how you will #Make150Count. We're inspiring thousands of young Canadians across the country to make a difference in their communities by giving them \$150, no strings attached, and asking them to do something great with it." [LINK](#)

CIBC
#StandForCanada

"In 2017, we celebrate the 150th anniversary of both Canada and CIBC. We've been standing for all Canadians since 1867. Given this epic occasion we're collecting the thoughts and feelings of Canadians by creating a digital time capsule. We invite you to help shape the narrative by creating a personalized meme using #StandForCanada." [LINK](#)

Scotiabank

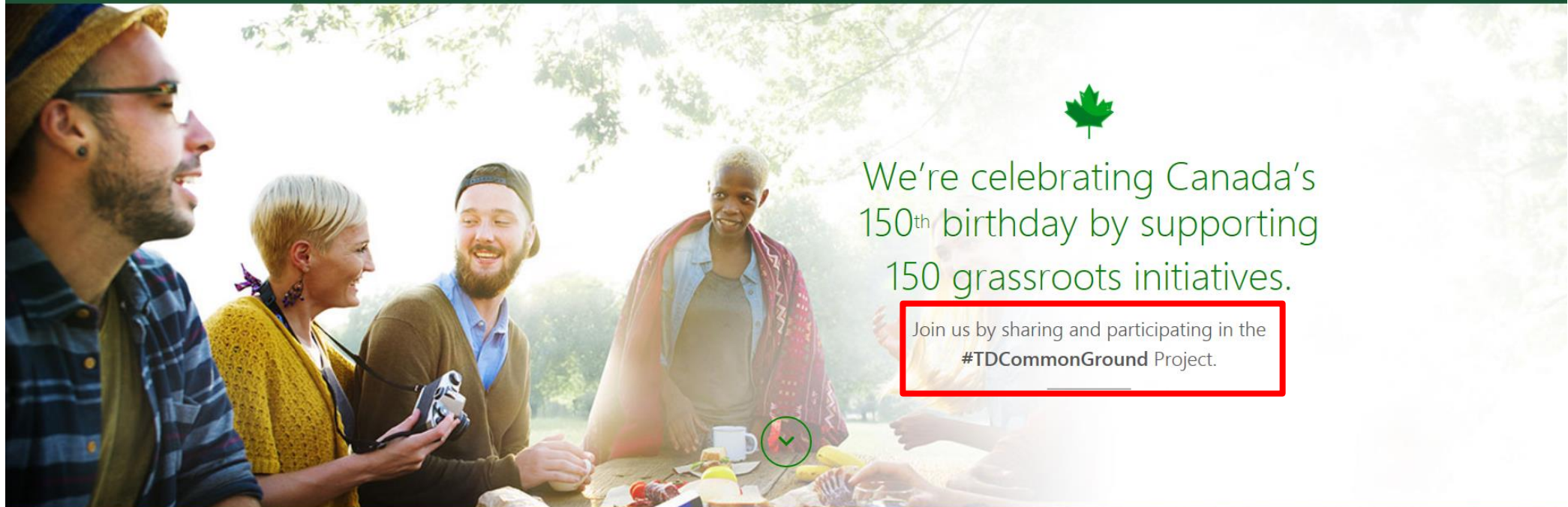
No Hashtag

BMO

No Hashtag

#Canda150





We're celebrating Canada's 150th birthday by supporting 150 grassroots initiatives.

Join us by sharing and participating in the **#TDCommonGround** Project.

Building communities, from the ground up



#TDCommonGround



Let's Make Canada's 150th
Anniversary Count. Tell us
how you will [#Make150Count](#)

We're inspiring thousands of young Canadians across the country to make a difference in their communities by giving them \$150, no strings attached, and asking them to do something great with it.

See the stories



#Make150Count



WE STAND FOR

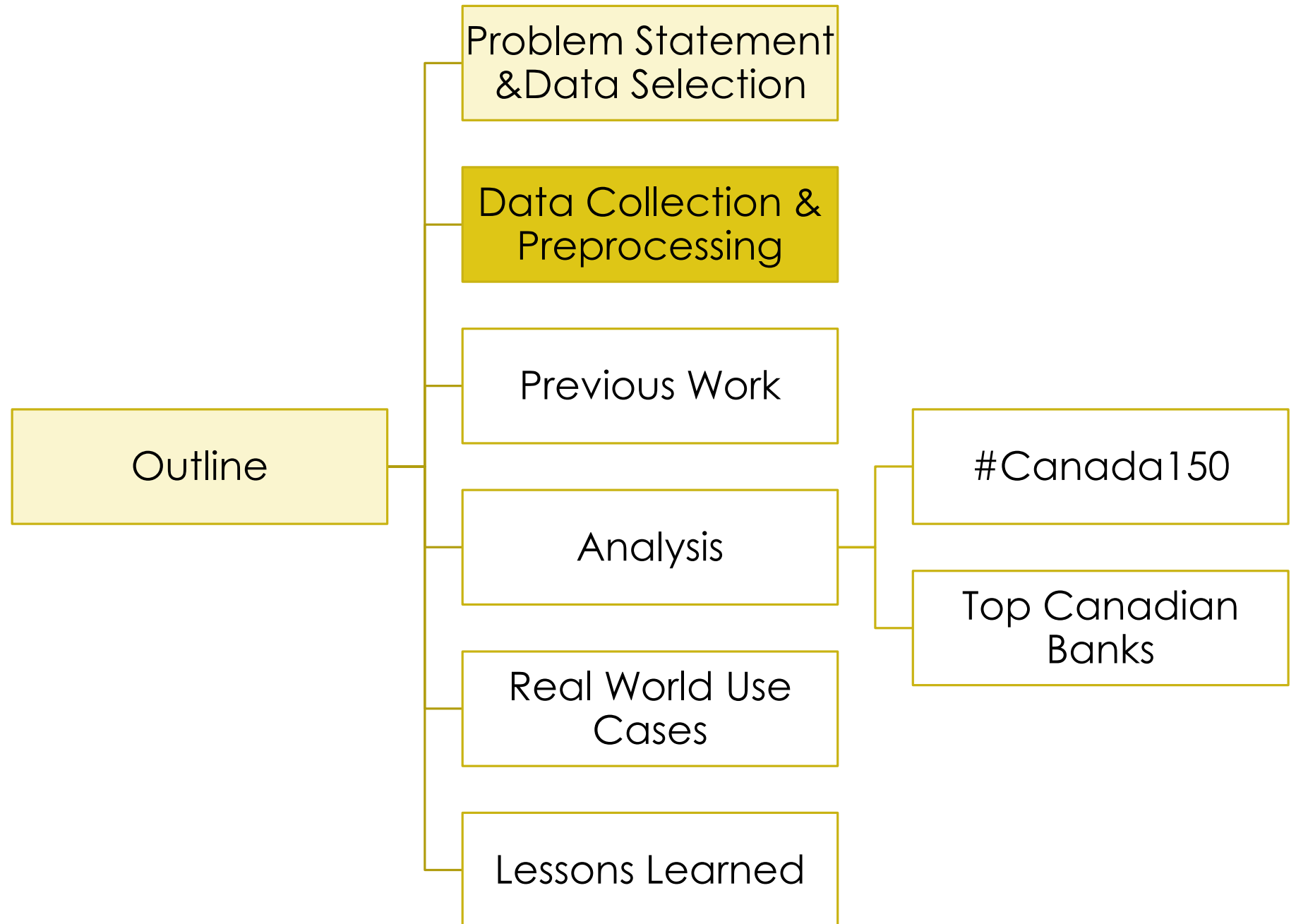
| Adventure

Be part of the celebration!

Click here to tell us how you #StandForCanada.

i MORE INFO

#StandForCanda





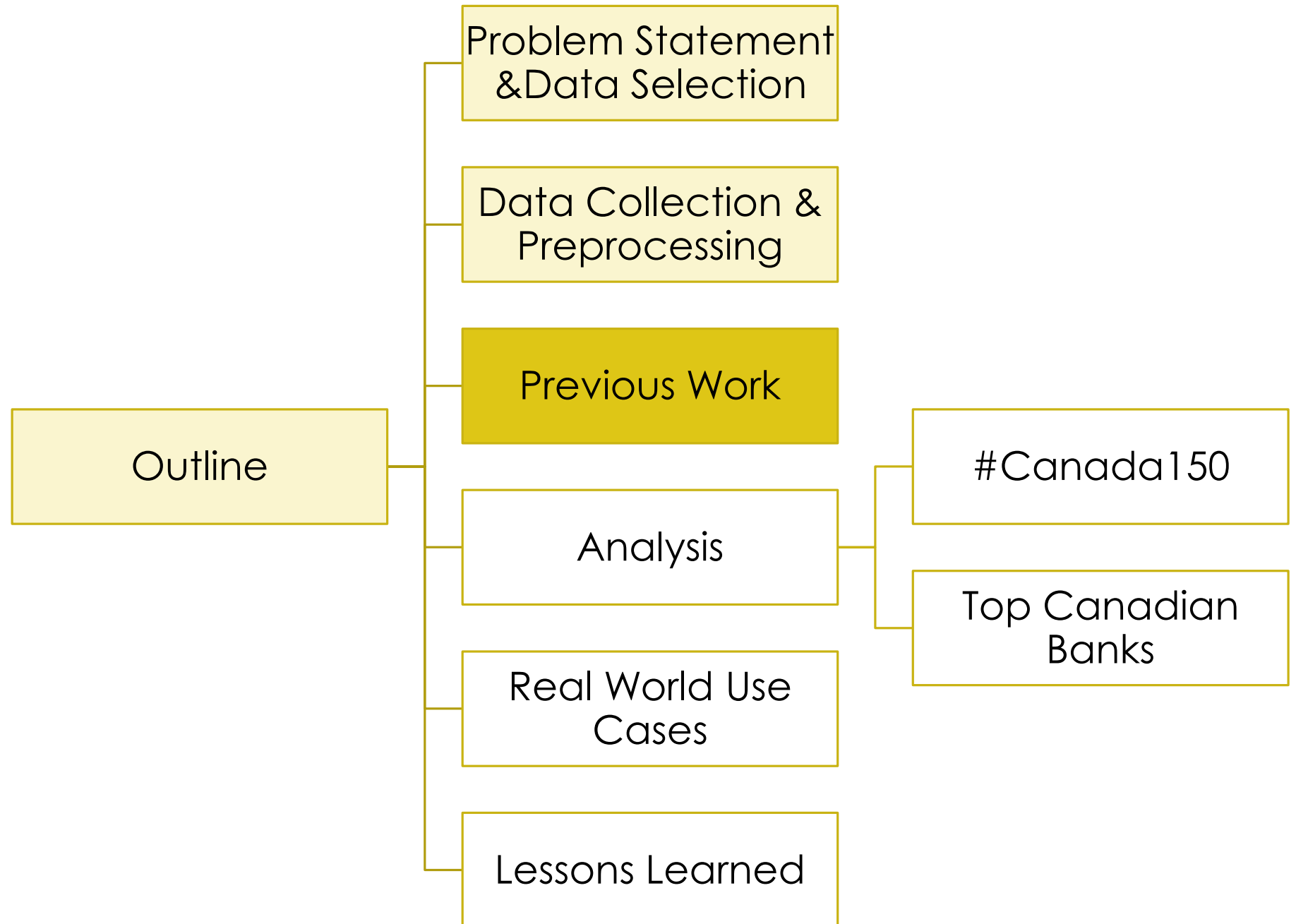
Data Collection

Search Term	Tweet Count (in R)	Tweet Count (in Netlytic)
#Canada150 lang:en	19767*	7471
#Make150Count lang:en	58	73
#TDCommonGround lang:en	61	76
#StandForCanada lang:en	418	485



Data Preprocessing

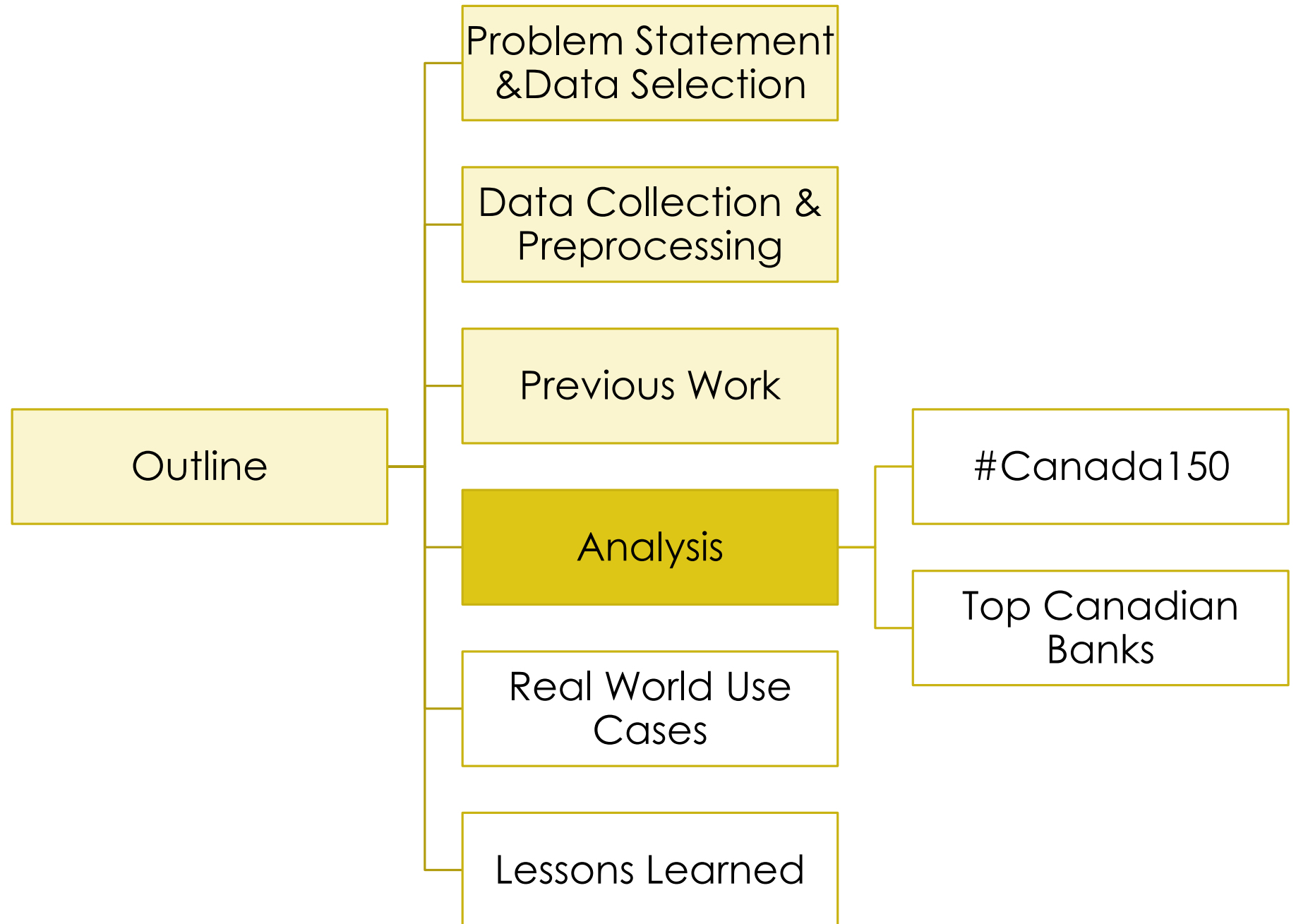
- Conversion to Data Frame Format
- Cleanup tweets
 - Remove special characters, punctuations etc.
 - Remove stop words in addition to the built-in dictionary
- Create a subset of tweets (R was not able to handle 19767)

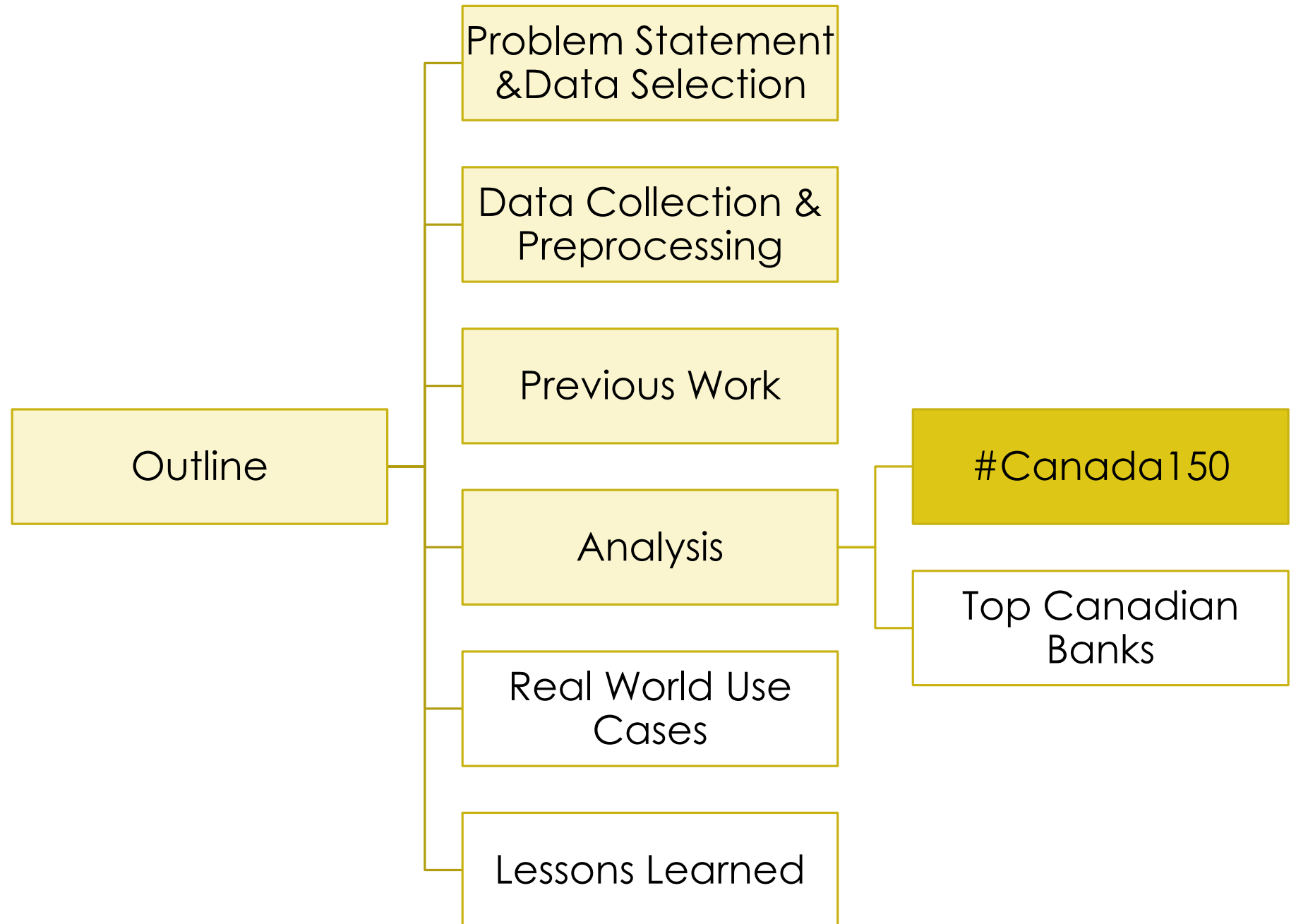




Previous Work

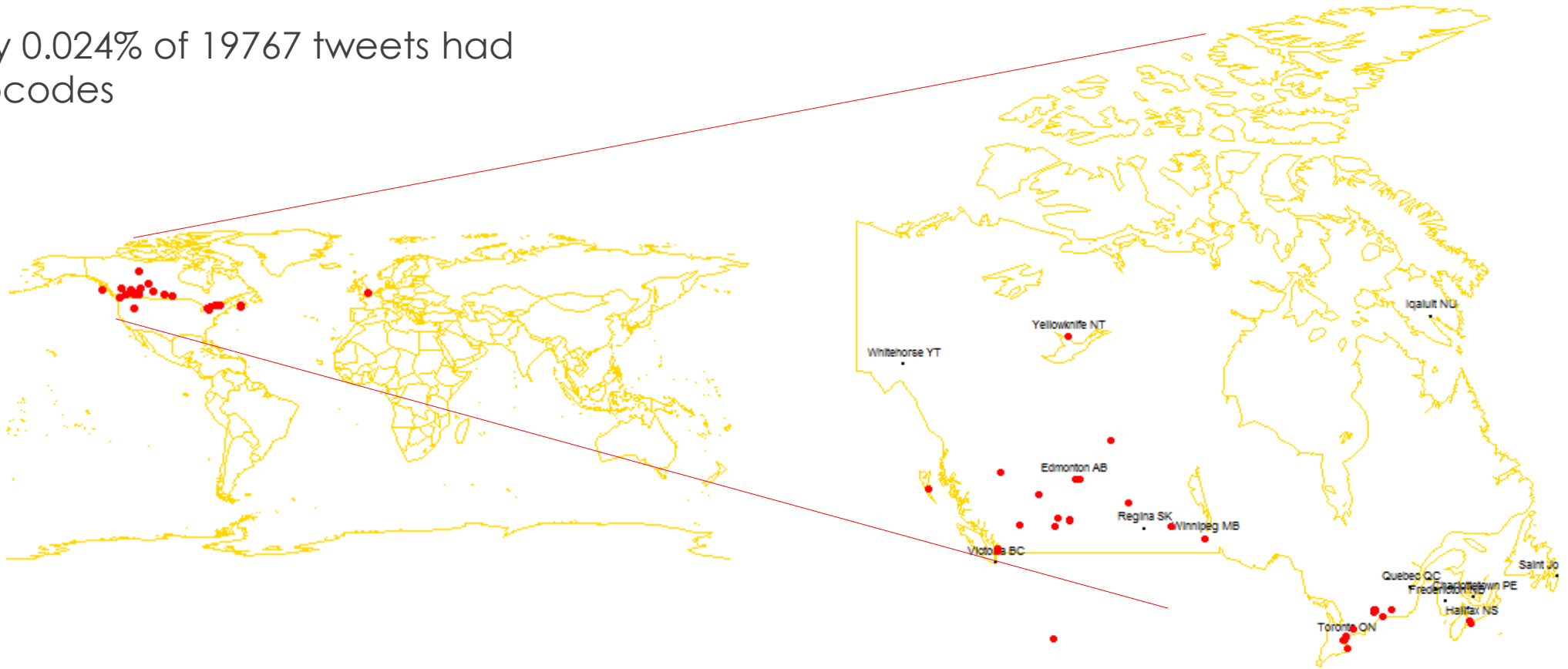
- ▶ H. C. Gruzd A, "Enabling Community Through Social Media," J Med Internet Res 2013;15(10):e248, 2013.
- ▶ E. & G. D. Dubois, "The multiple facets of influence: identifying political influentials and opinion leaders on Twitter.," American Behavioral Scientist, 58(10), 1260-1277., 2014.
- ▶ W. W. S. Y. B. S. & P. H. W. Xu, "Predicting opinion leaders in Twitter activism networks: The case of the Wisconsin recall election.," American Behavioral Scientist, 58(10), 1278-1293., 2014.
- ▶ A. O. Marthinussen, "Analyzing the US election using Twitter and Meta-Data in R," 29 July 2016. [Online]. Available: <https://www.r-bloggers.com/analyzing-the-us-election-using-twitter-and-meta-data-in-r/>.



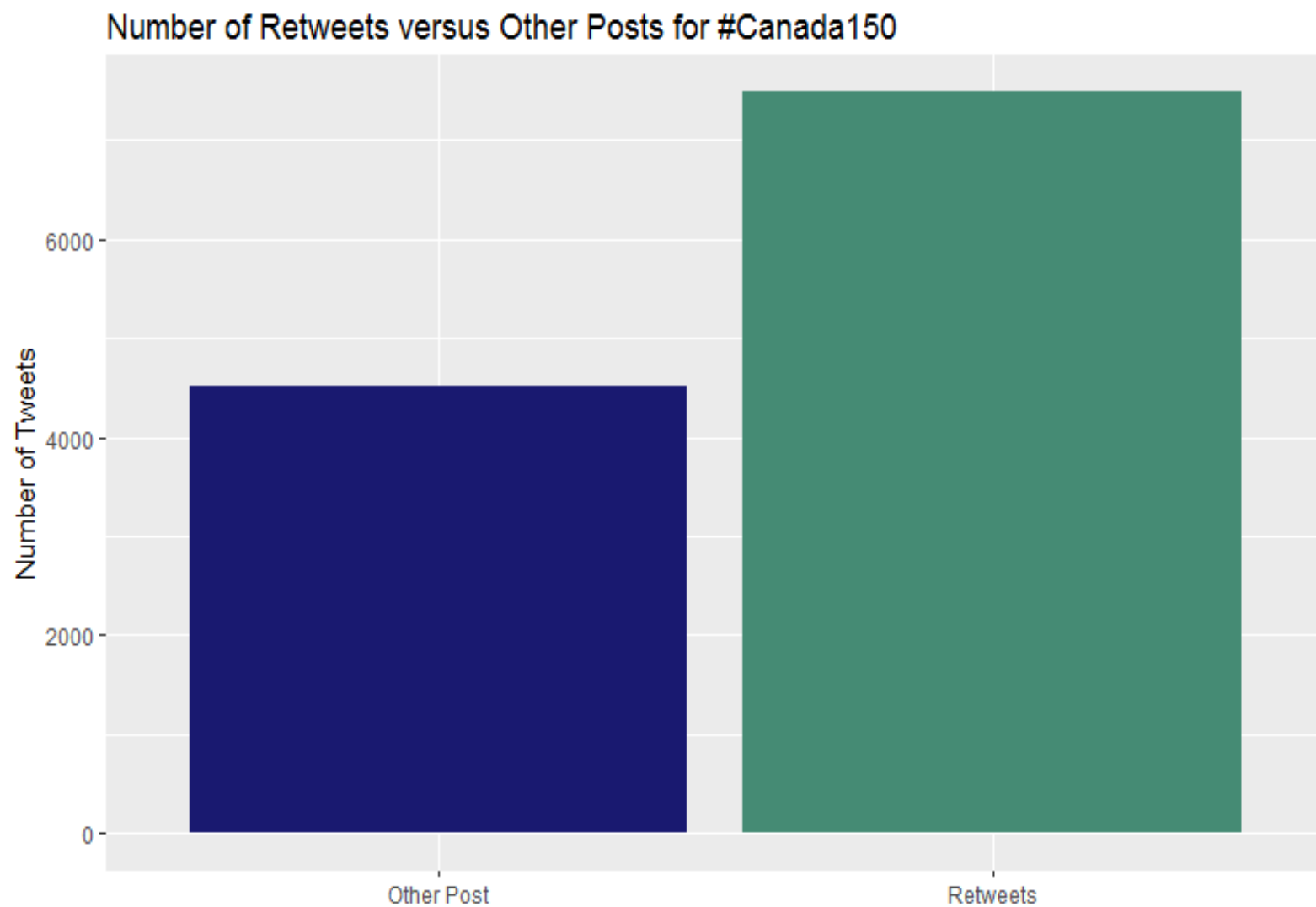


#Canada150 – Geo Plot

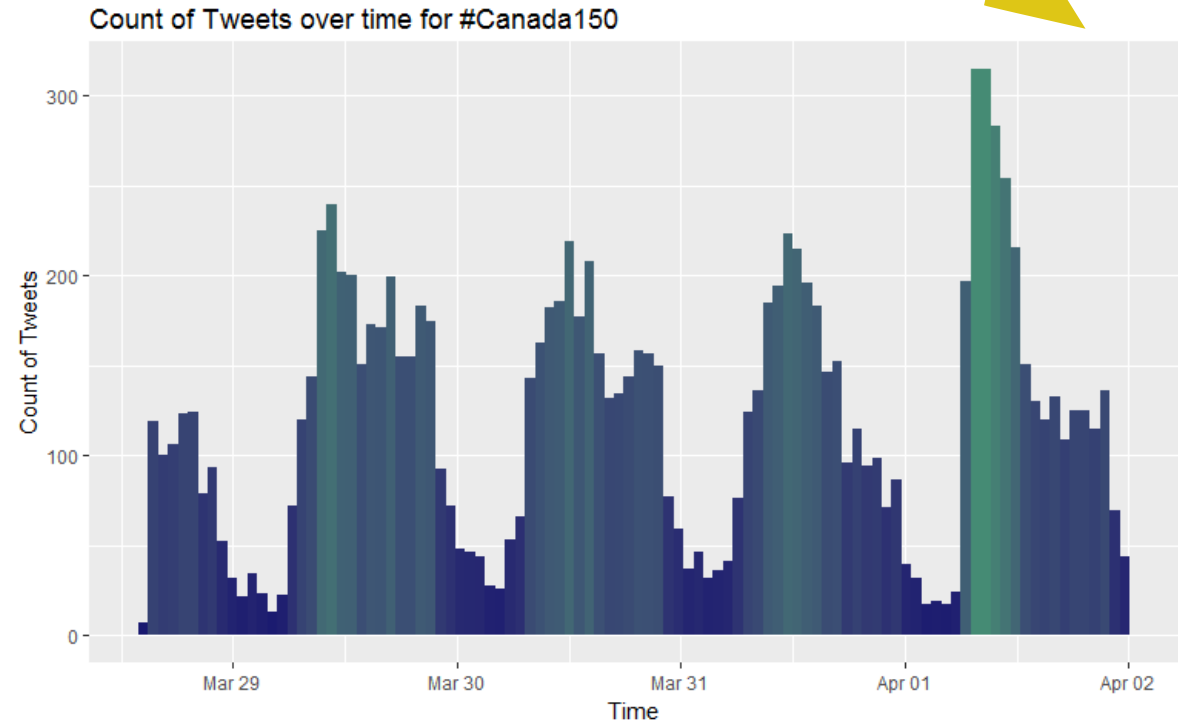
- Only 0.024% of 19767 tweets had geocodes



Retweets



Tweet Distribution over Time





Ontario Liberals and 12 others follow



Justin Trudeau  @JustinTrudeau - Apr 1

They took my suggestion! My favourite beer, now 3 times as patriotic. Can't wait to try it... [#Canada150](#) 

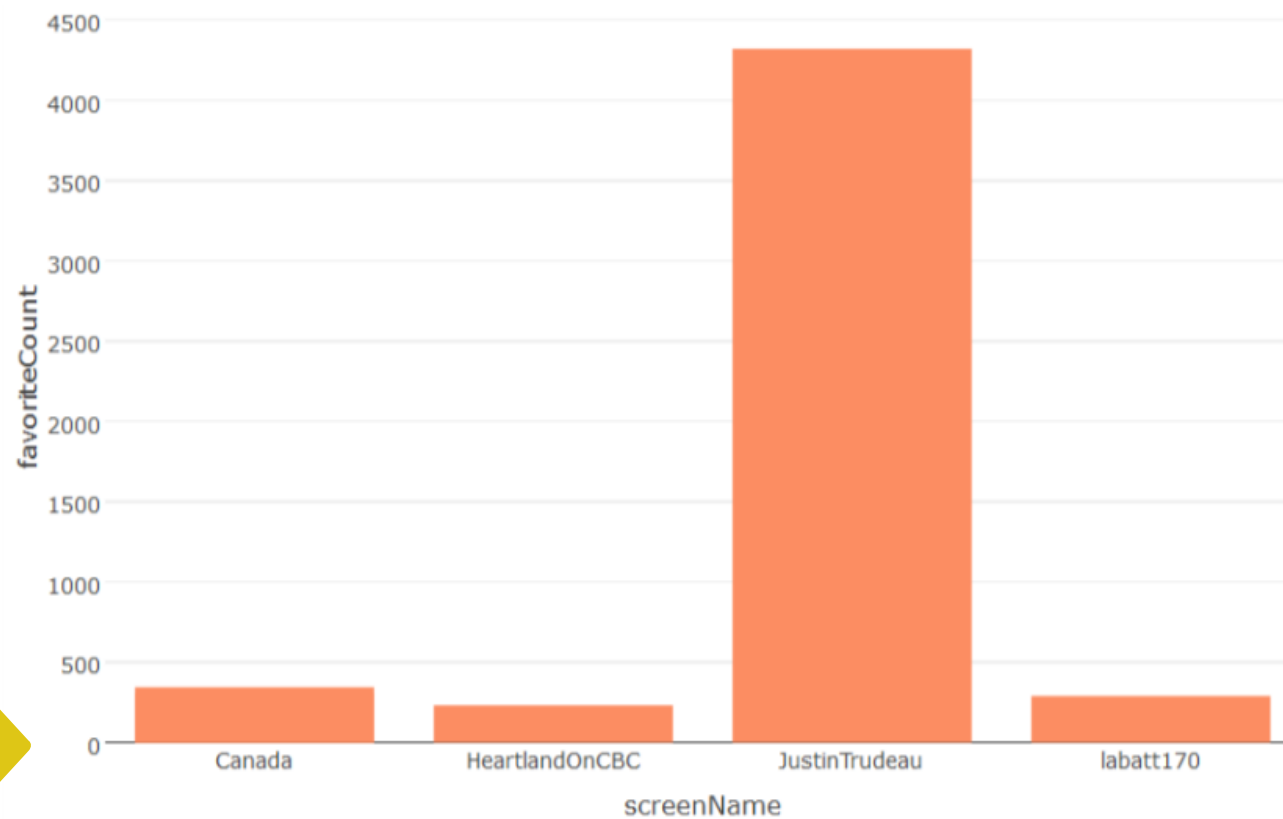


 349  1.3K  4.6K

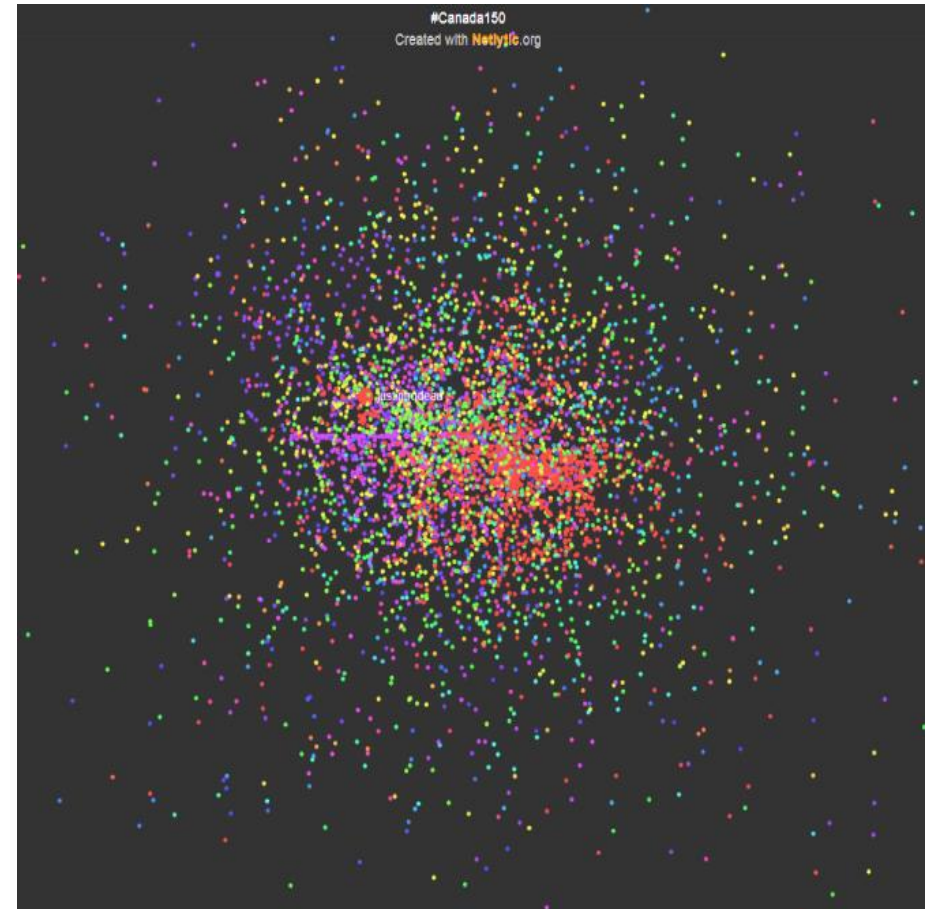
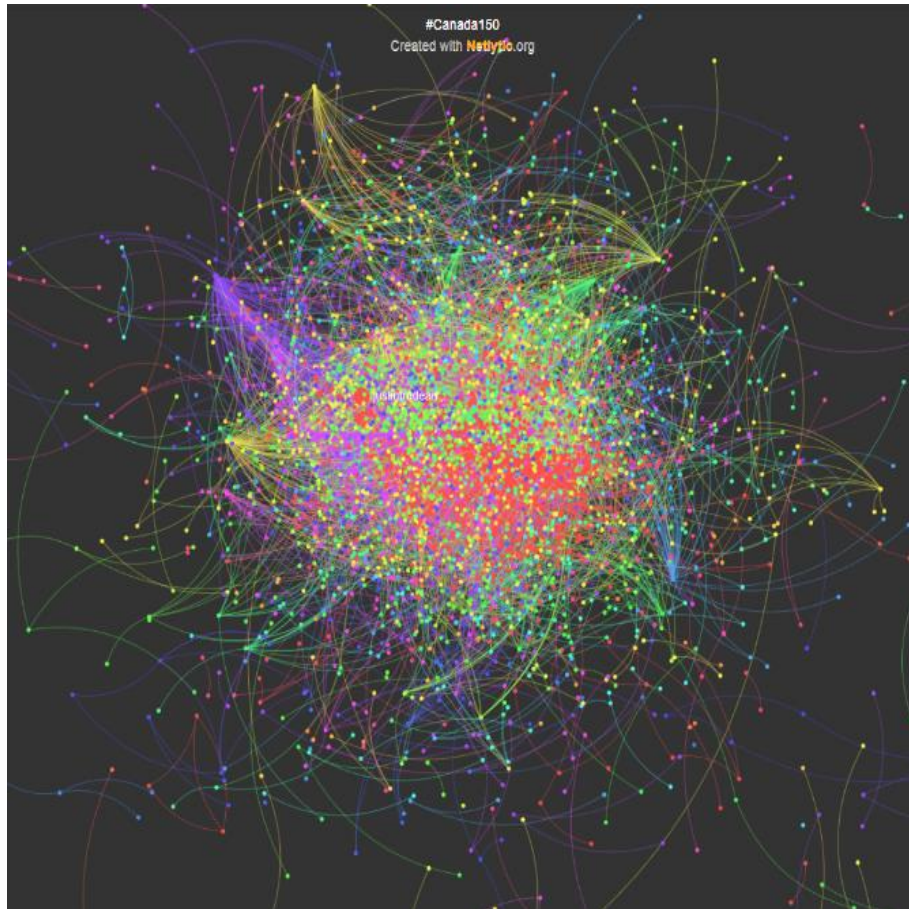


Popular Screen Names

Screen Names with over 200 Likes

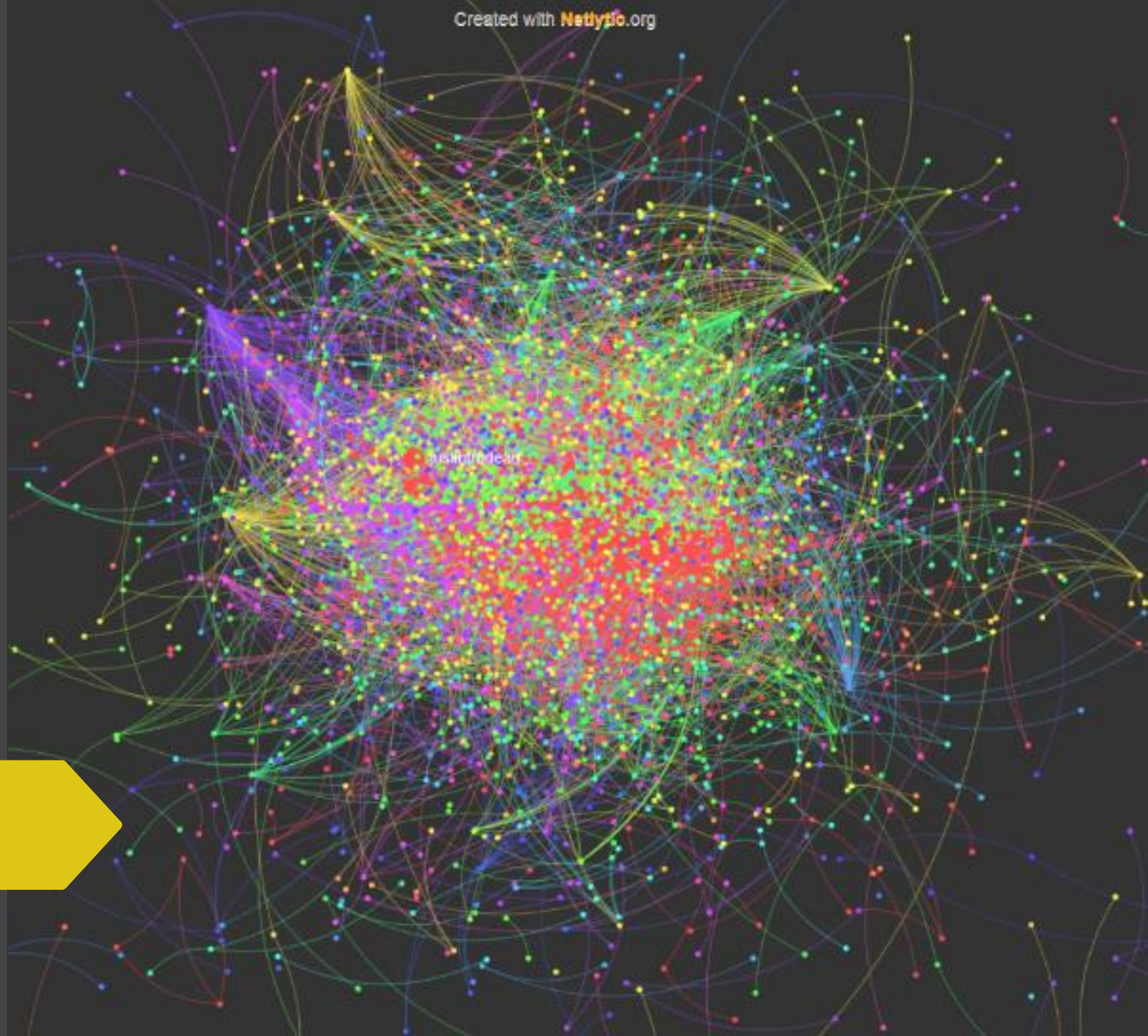


Network Graph (With and Without Edges)

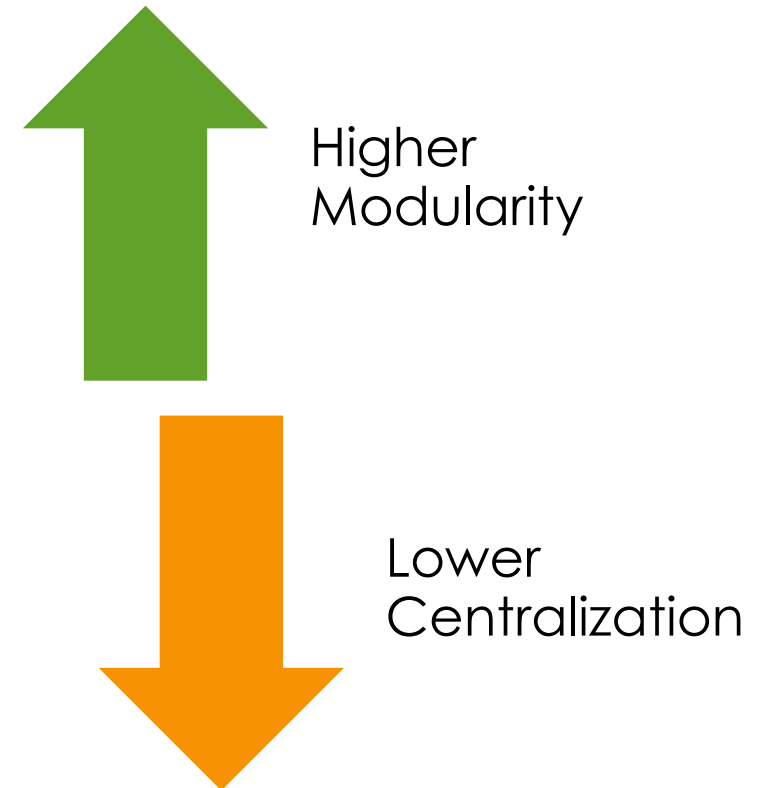
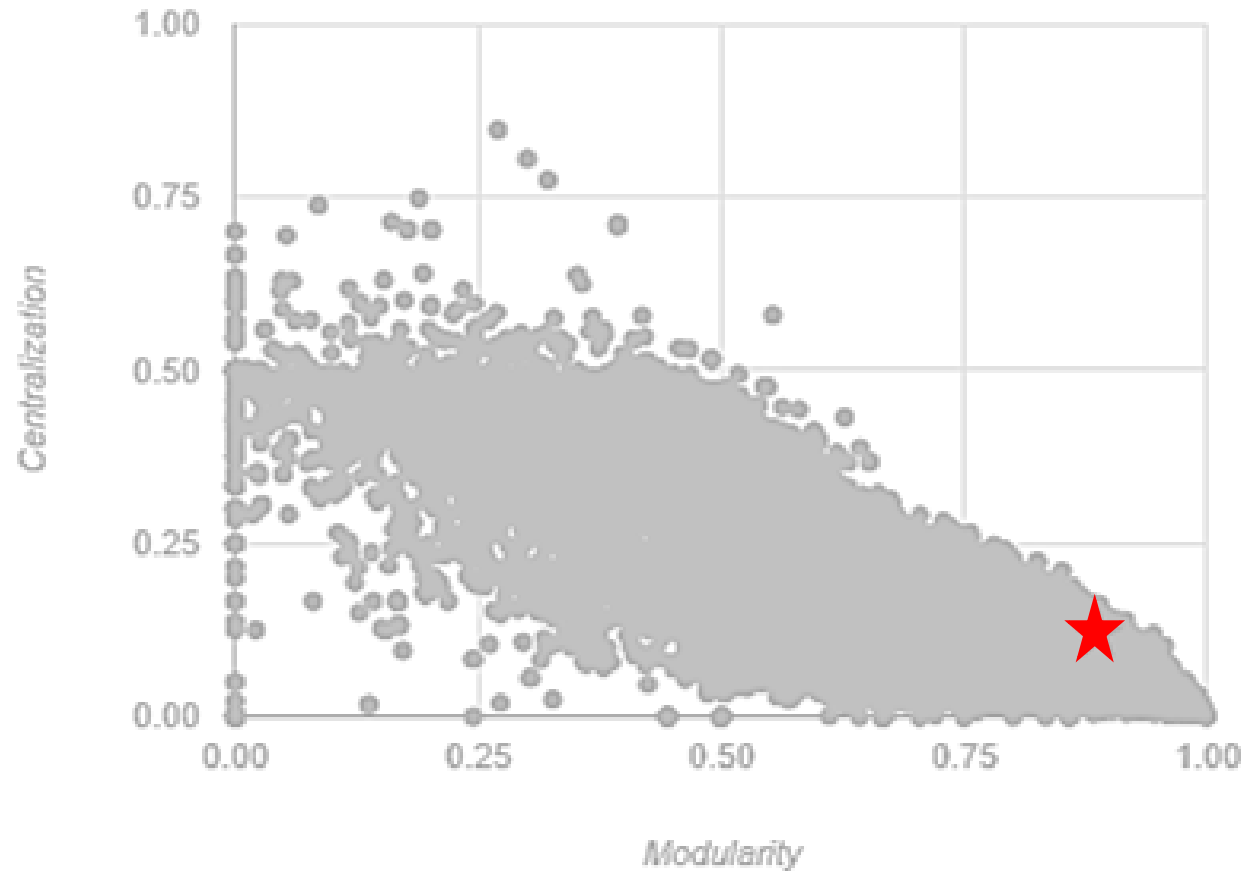


Diameter	{ • 22
Density	{ • 0.0002212929117
Reciprocity	{ • 0.0343535290443
Centralization	{ • 0.1270800852121
Modularity	{ • 0.8937551840649

#Canada150



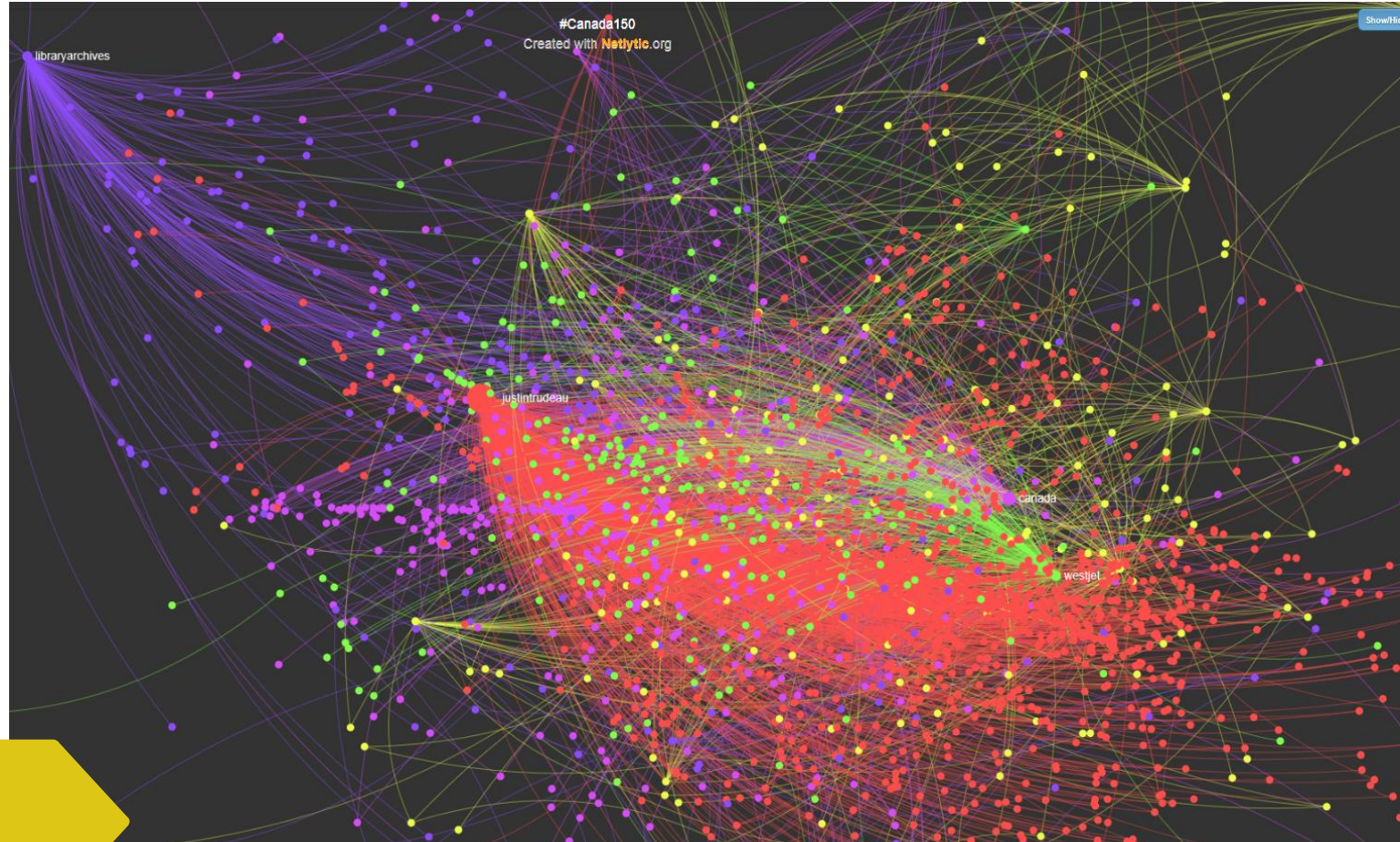
#Canda150



#Canada150

In-degree Centrality

9% Zoom with Edges (In-degree)





Justin Trudeau



Canada



WestJet



Library and
Archives Canada



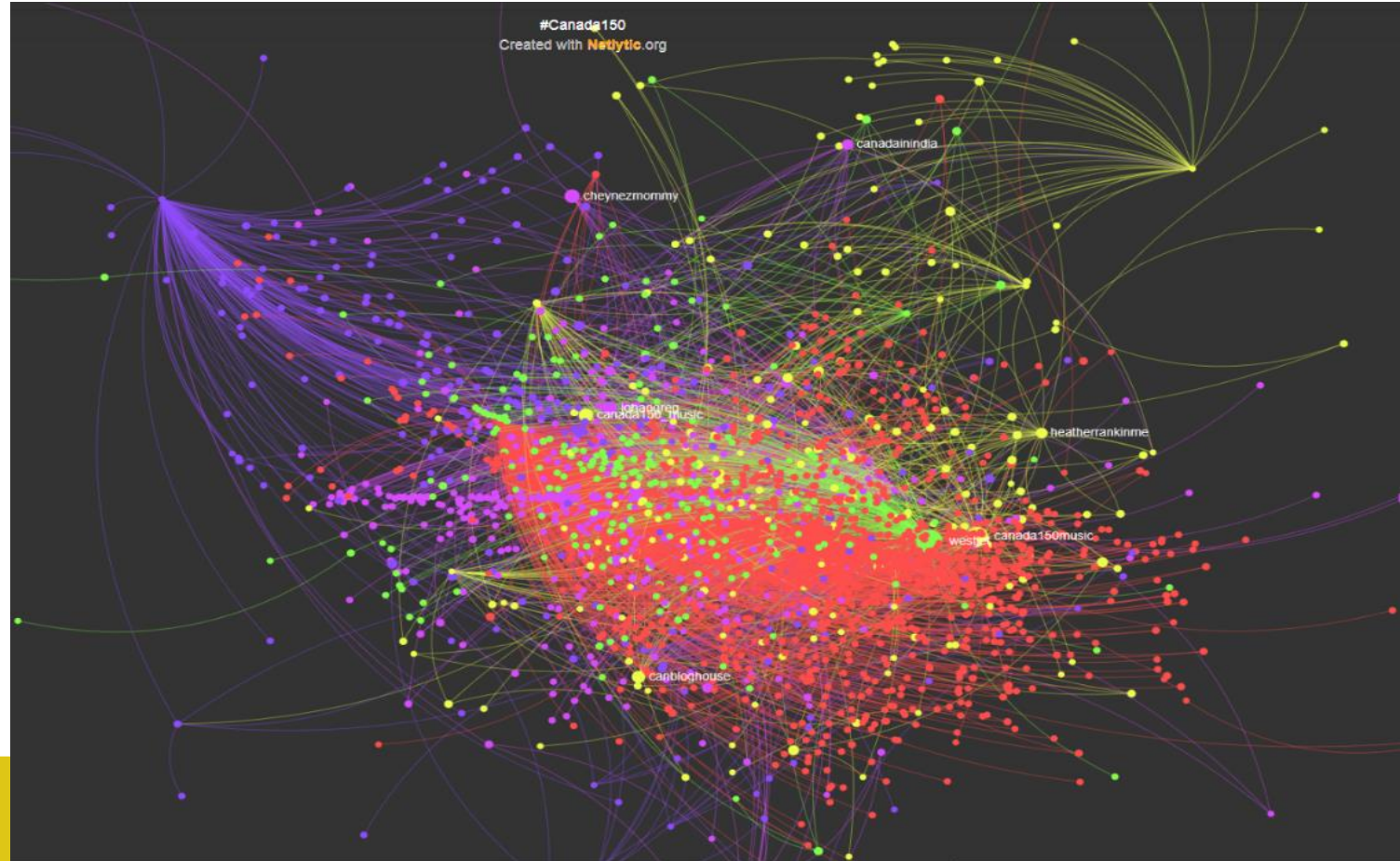
Canada150Music

In-Degree Centrality

#Canada150

Out-Degree
Centrality

6% Zoom with Edges (Outdegree)





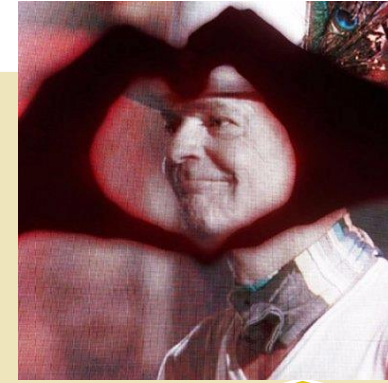
CanBlogHouse



Heather Rankin



WestJet

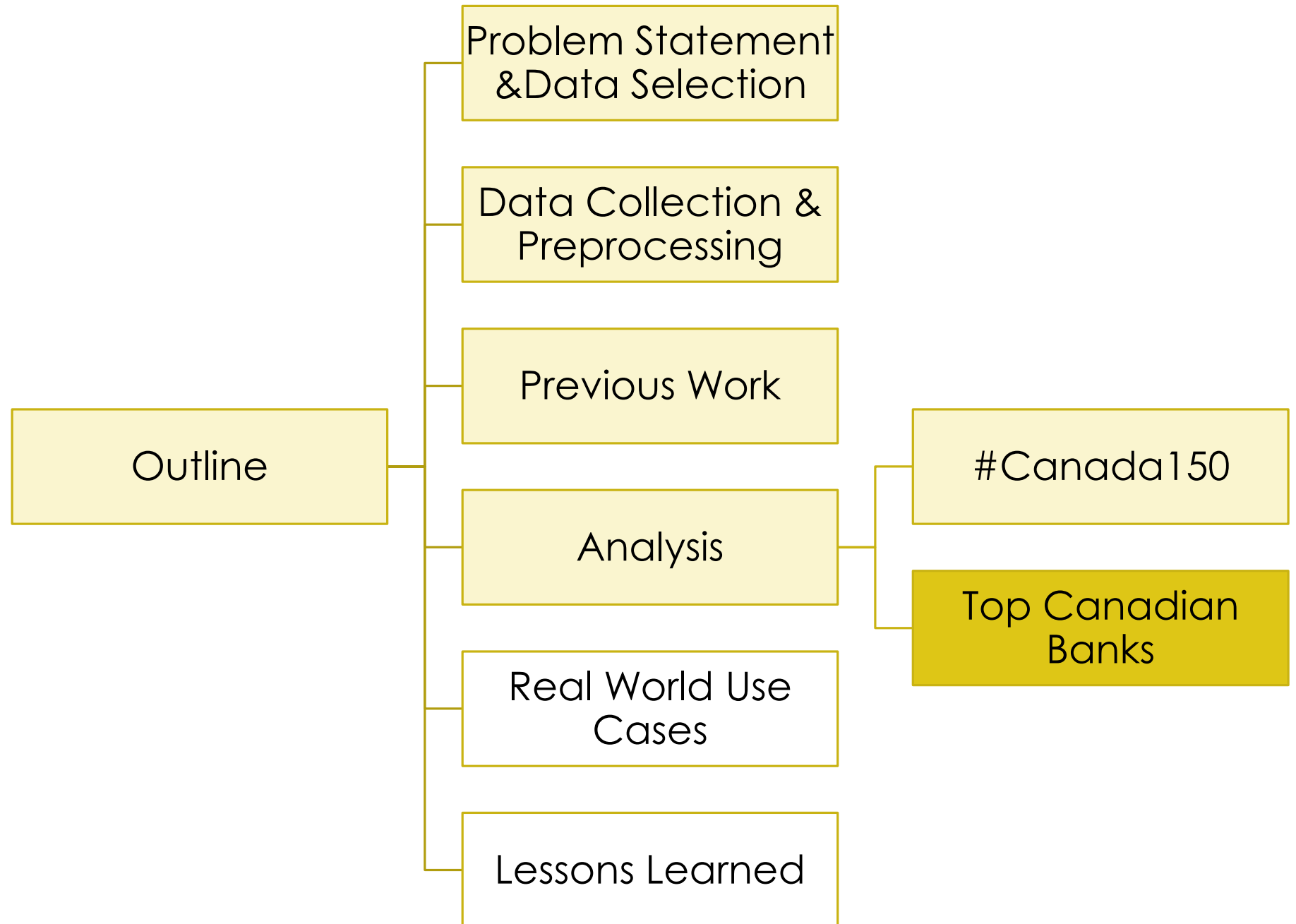


Paula Lambert



Canada150Music

Out-Degree Centrality

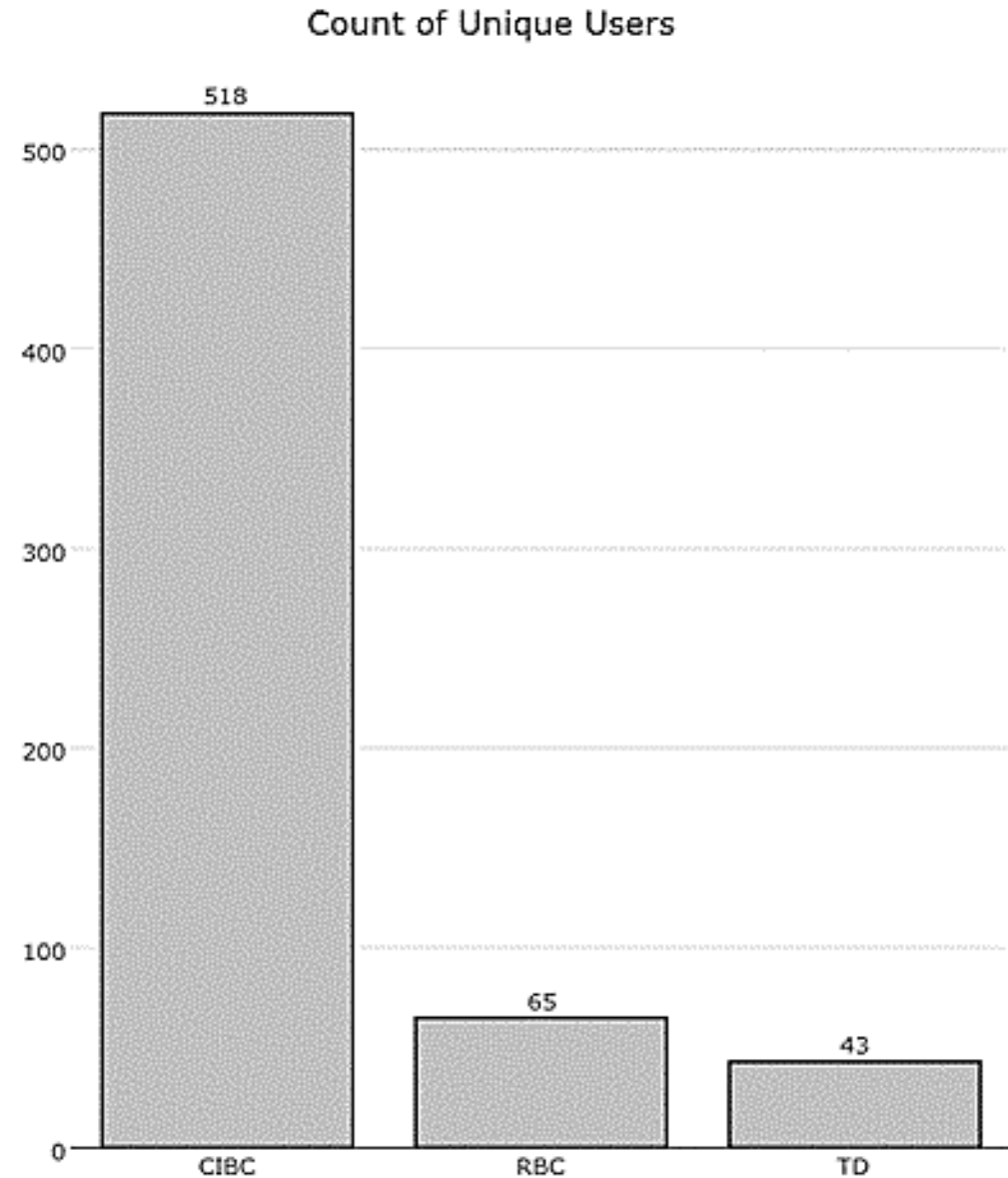



	Unique Users	Network Graph	Tweets vs. Retweet	Liked Tweets
RBC				
TD				
CIBC				



Top
Canadian
Banks

Number of Unique Users in the Network

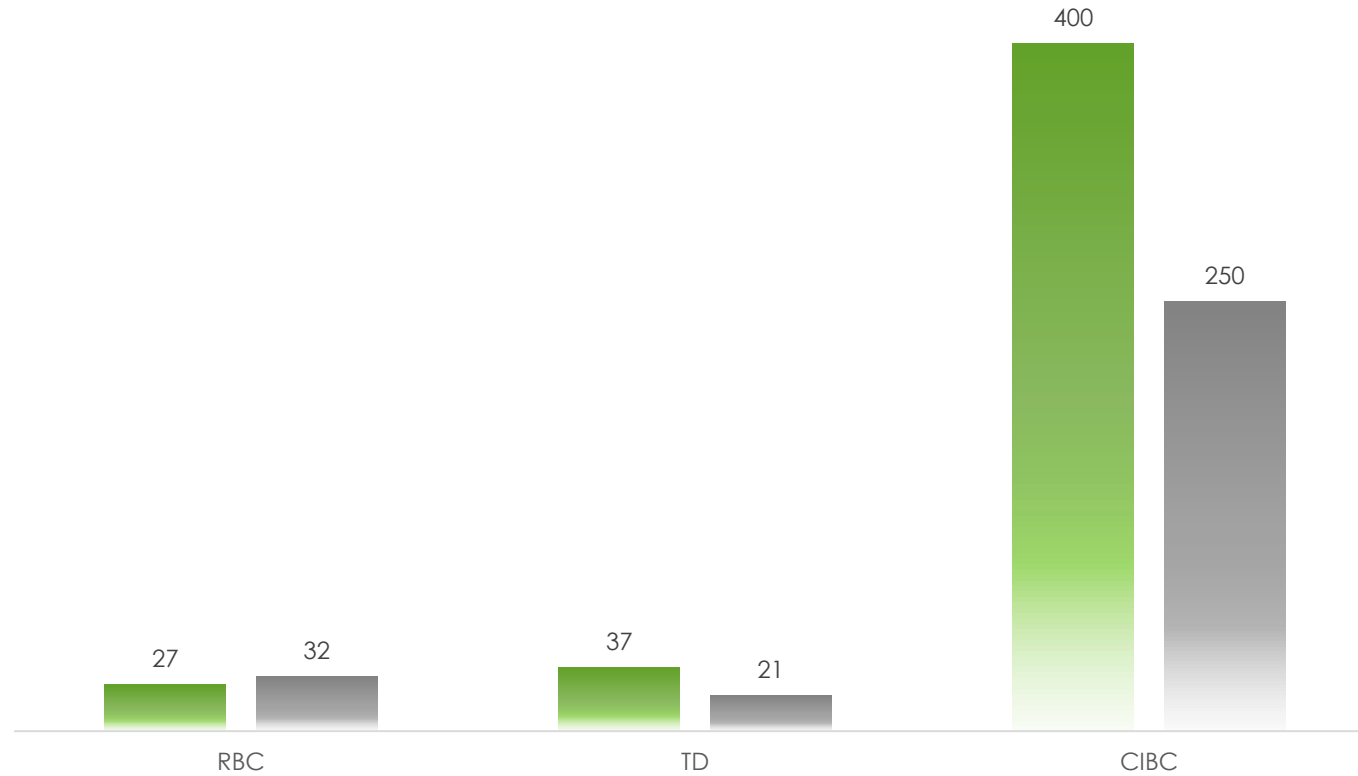


	Unique Users	Tweets vs. Retweet	Liked Tweets	Network Graph
RBC				
TD				
CIBC				



Top
Canadian
Banks

■ Retweets ■ Other Posts

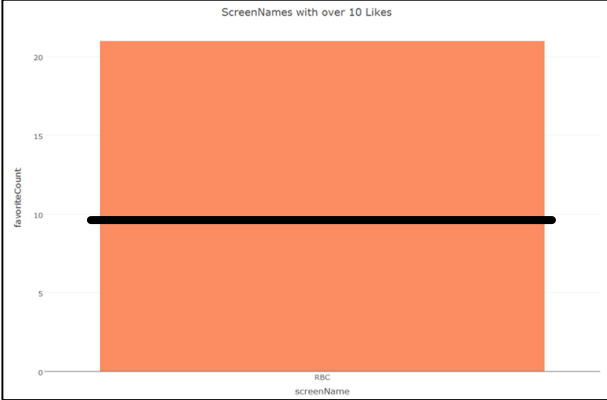


➤ Tweets vs. Retweets

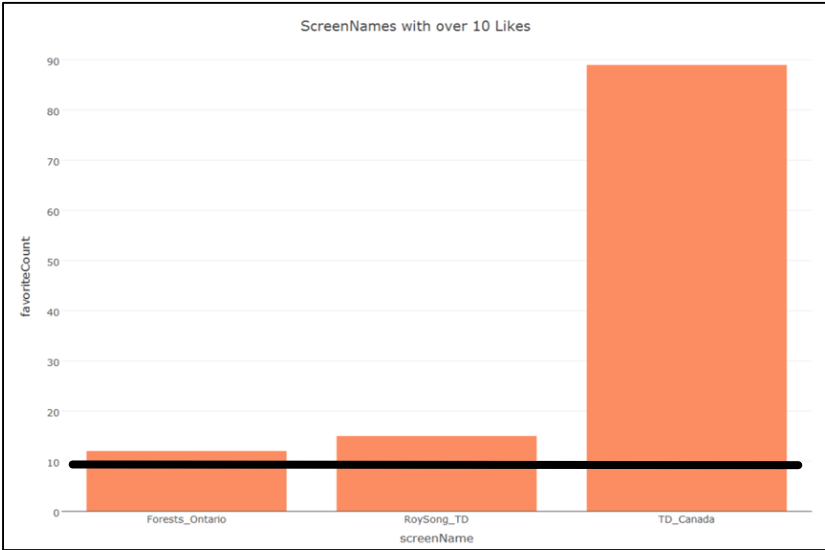
	Unique Users	Tweets vs. Retweet	Liked Tweets	Network Graph
RBC				
TD				
CIBC	★	★		



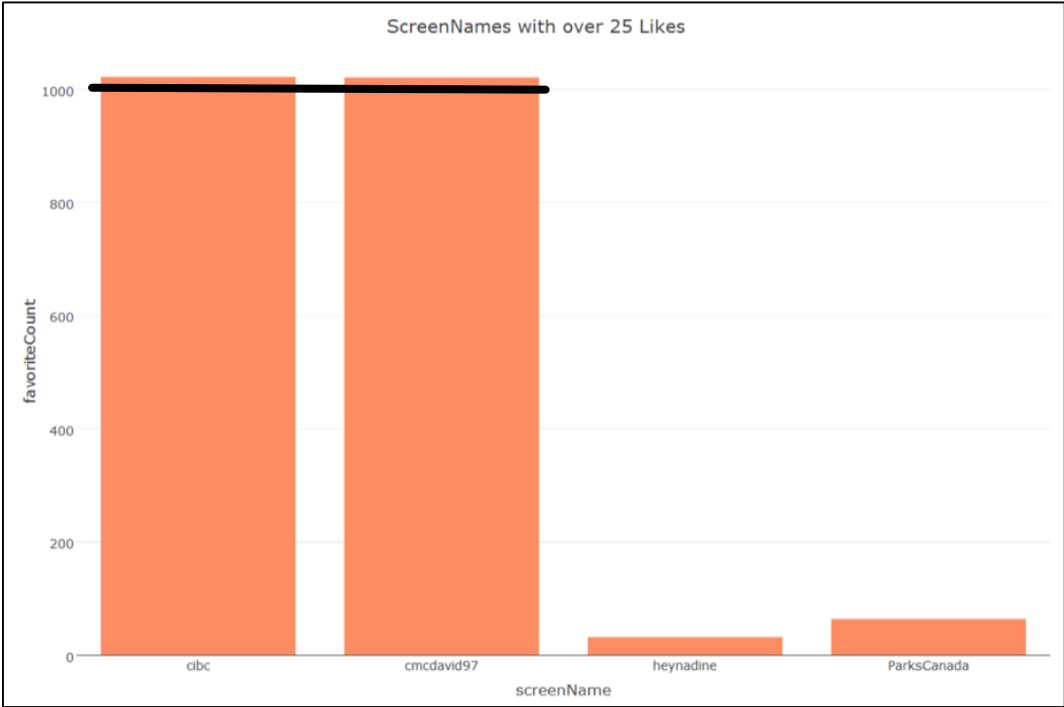
Top
Canadian
Banks



RBC



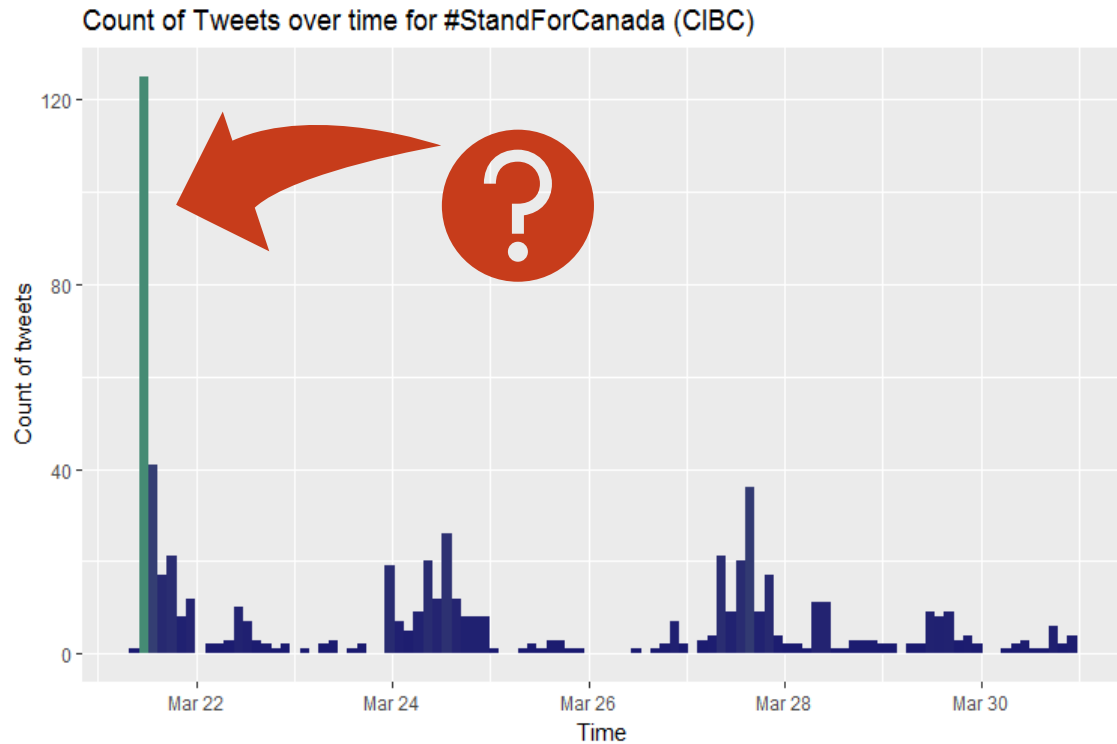
TD



CIBC



Users with most liked Tweets



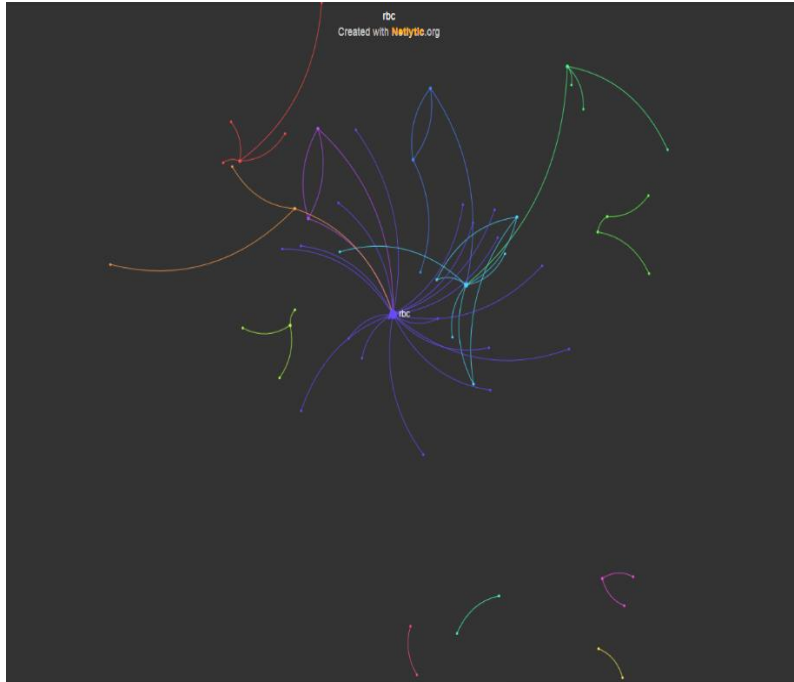
Connor McDavid
Captain of Edmonton Oilers of the National Hockey League

	Unique Users	Tweets vs. Retweet	Liked Tweets	Network Graph
RBC				
TD				
CIBC	★	★	★	

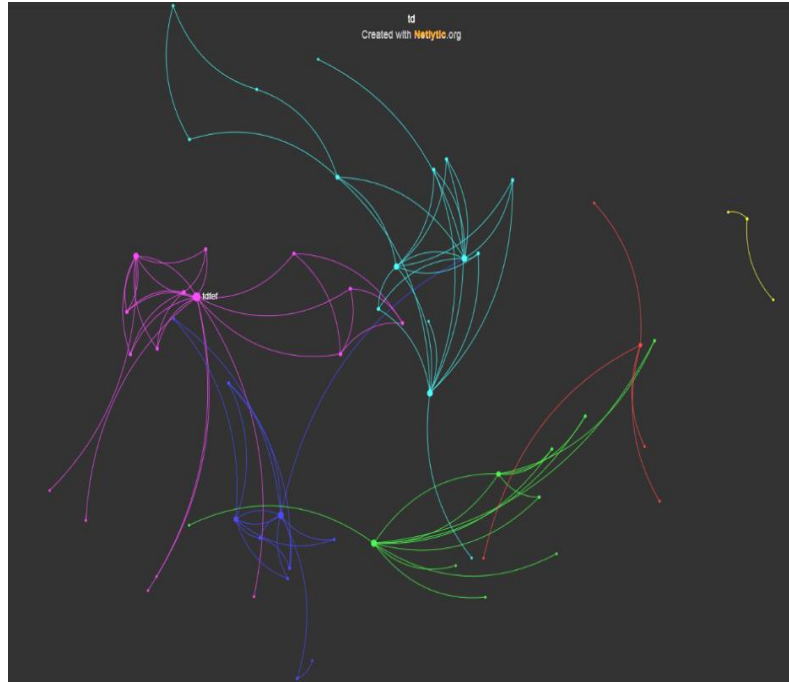


Top
Canadian
Banks

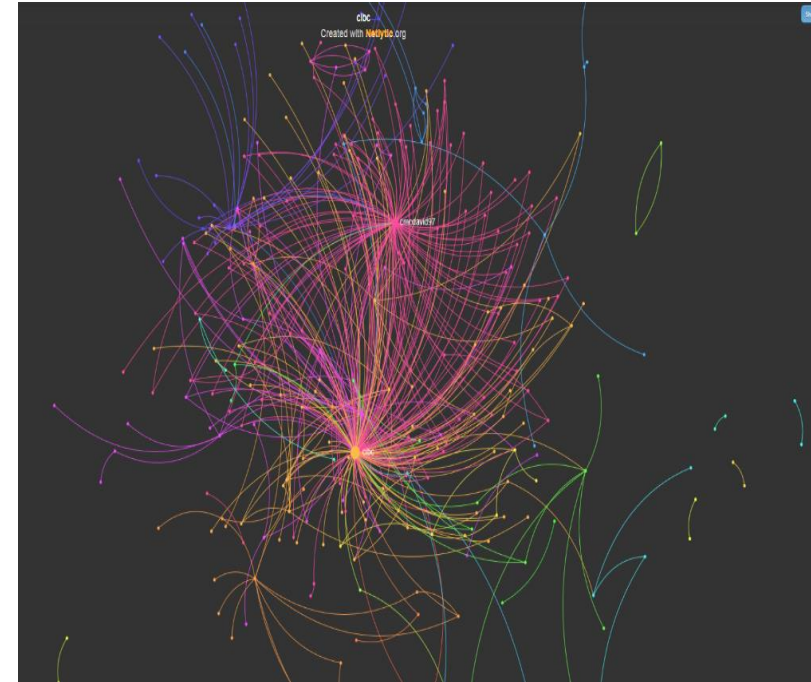
RBC



TD



CIBC

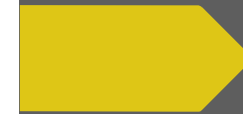


Network Graphs

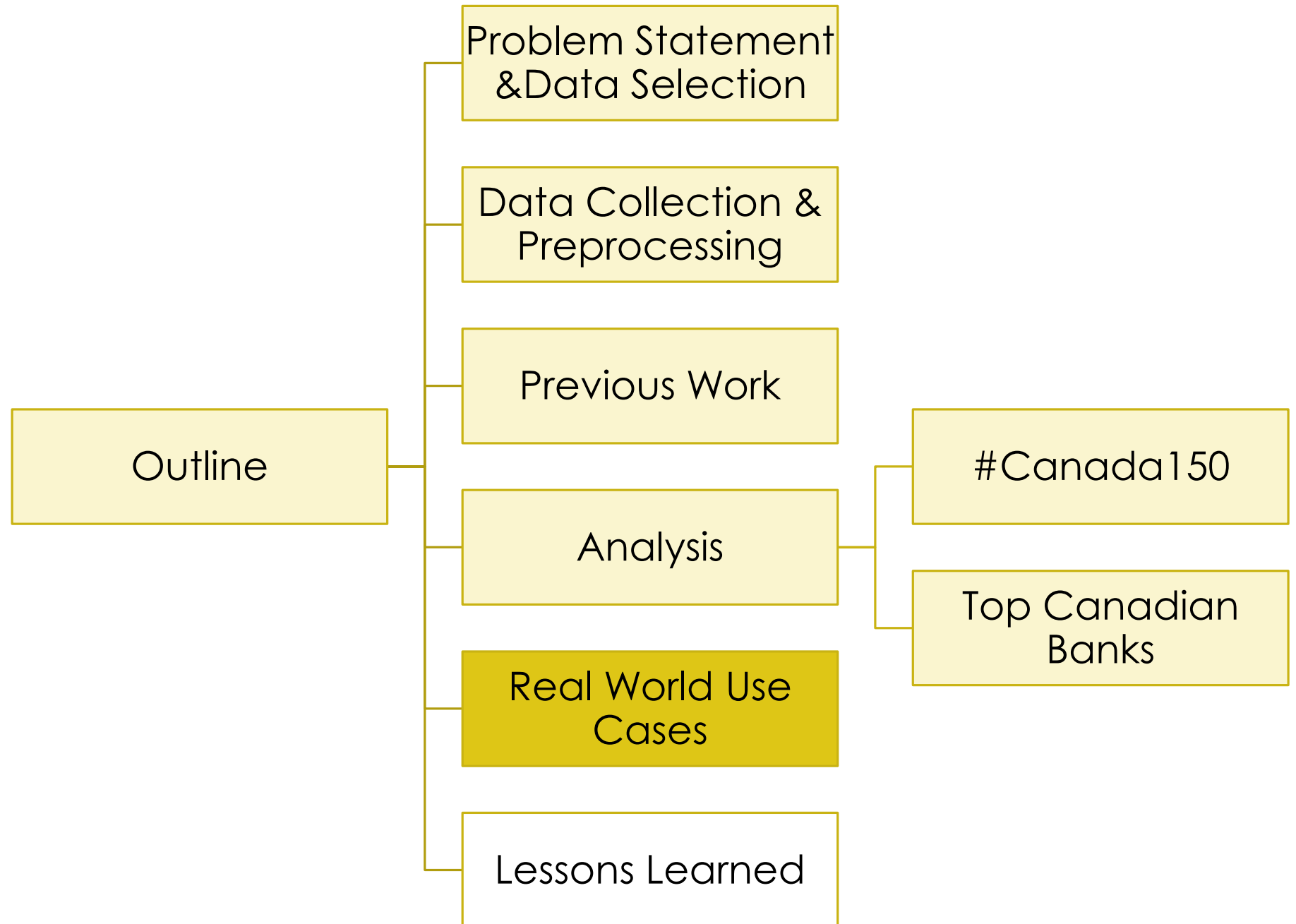
	Unique Users	Tweets vs. Retweet	Liked Tweets	Network Graph
RBC				
TD				
CIBC	★	★	★	★



Top
Canadian
Banks



Winner!!!



#Canada150

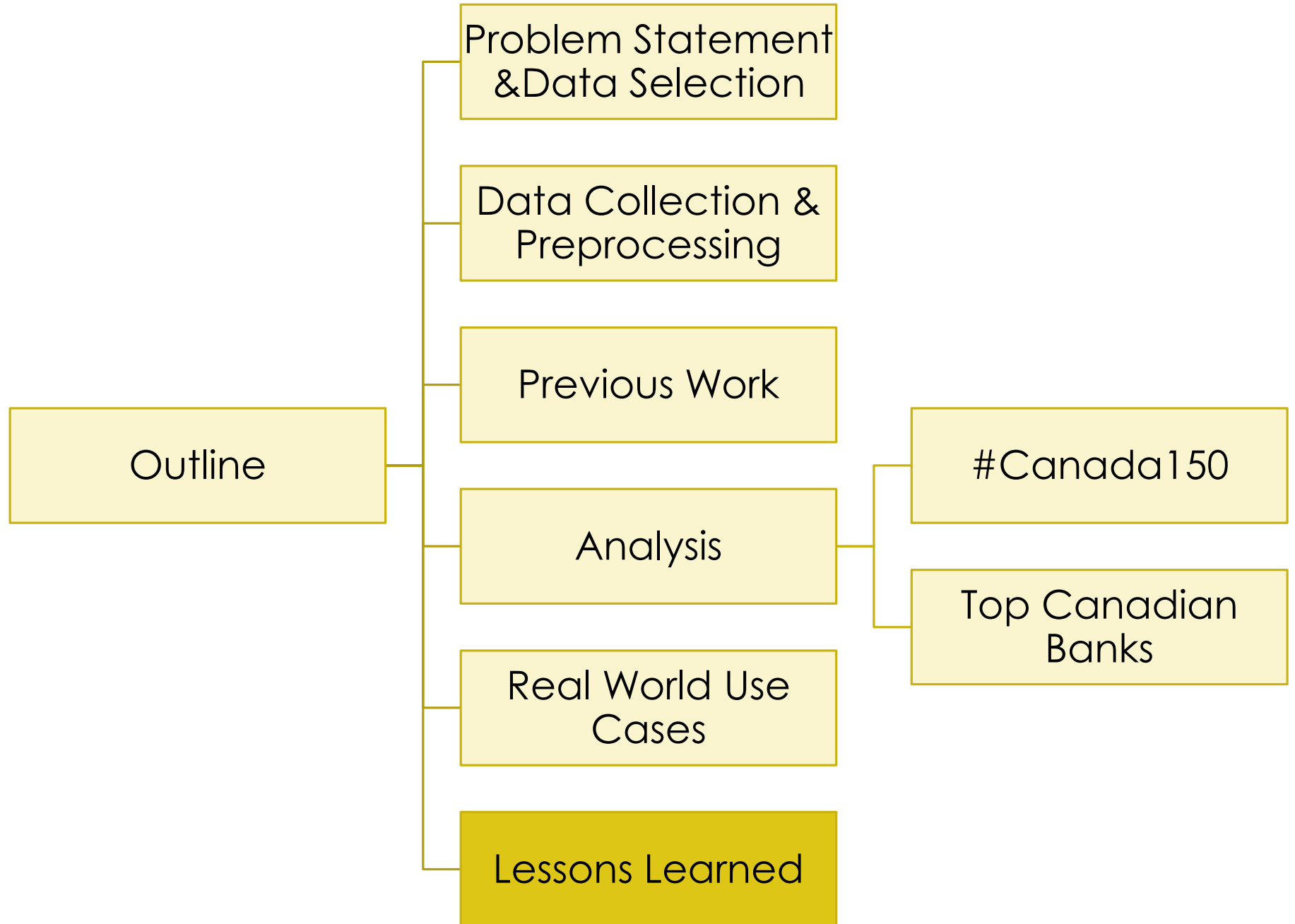
- Government Officials
- Researchers

Top
Canadian
Banks

- Strategize
- Assess Impact & Involvement



Real Life
Use Cases

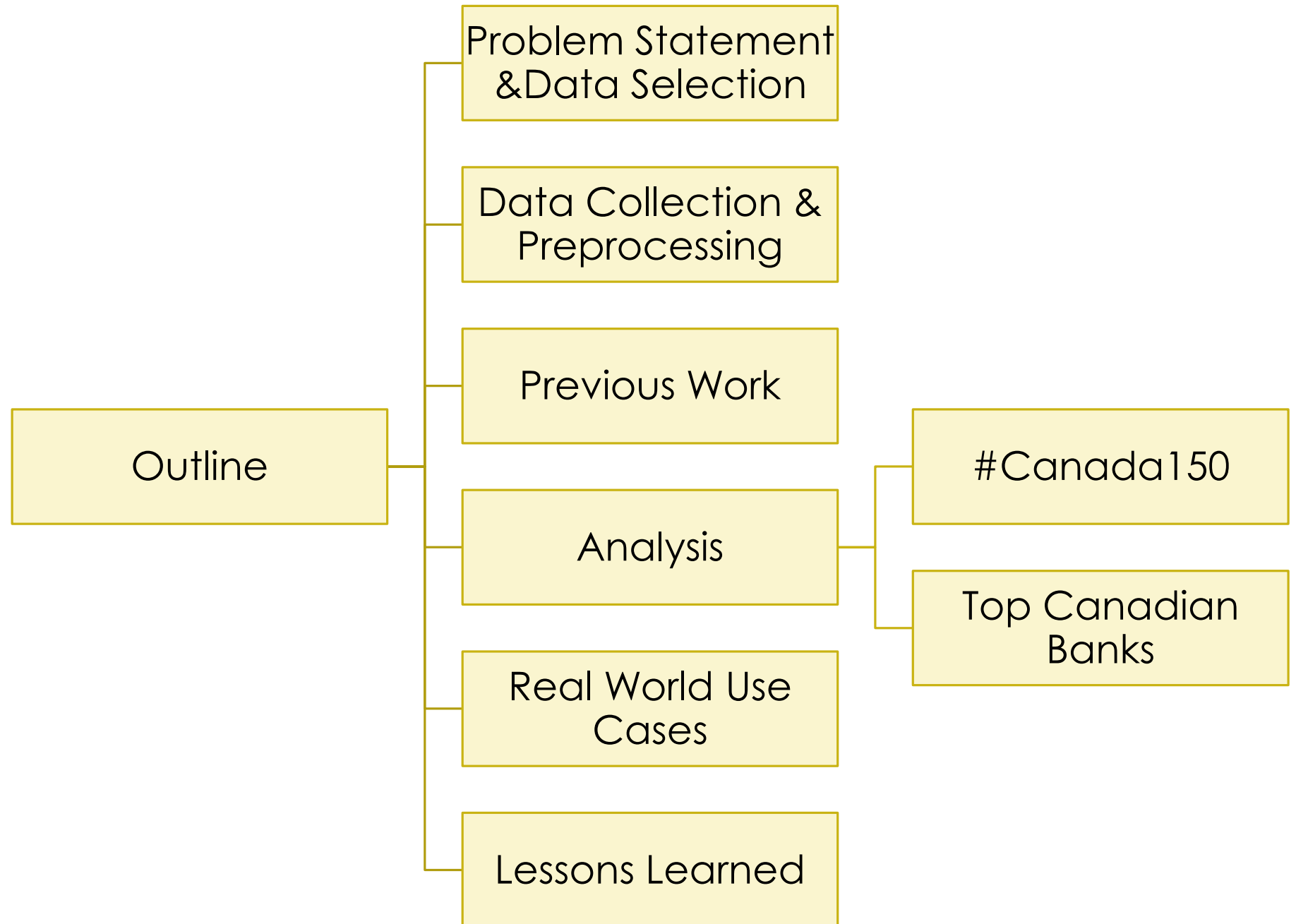




Timing
Matters



Lessons
Learned



Questions

Comments

Suggestions

Feedback



THANK YOU!