TODO 20170915

<Current TODO>

1. Investigate previous work & Determine tools to use
   1. Determine programming language to use
   2. Determine libraries to use
   3. Determine data analysis tools to use
   4. Get familiar with those tools
   5. Investigate how the NHISS Public Health Alarm Service anticipates general cold cases (compared to flu from specific influenza virus)
2. Collect flu data
   1. Contact CDC@Korea to get weekly flu cases by location\*
   2. Parse and aggregate data if needed
3. Collect social media data
   1. Investigate various SNSs whether they provide locations and searching capabilities for posts.
   2. Enumerate searching keywords
   3. Collect data from available SNSs
   4. Grab previous data at the time when flu data is available
4. Process weather data
   1. Collect designated data or image
   2. Perform image processing, if needed
   3. Grab station information, and previous data at the time when flu data is available
5. Visualize flu data and social media data in one screen (Requires 1~3)
   1. Determine what information is to be displayed
   2. Get the location map for Korean counties
   3. Generate image for the visualization
   4. Optionally, make an interactive design
6. Examine correlation between flu data and social media data (Requires 1~2)
   1. Enumerate dimensions of the data
   2. Enumerate the candidate set of correlation models
   3. Make a scoring function
   4. Find the model and parameters best describing the data
   5. Decide whether social media can be used as the substitution of non-real-time flu data\*
7. Examine correlation between all data (Requires 1~3)
   1. Repeat procedures on 5.1~5.4 for whole data

\* Needed to success in order to continue the project.

<Future Work>

1. Make an autocollecting program for all data
2. Build prediction model assumptions (Also consider age distribution)
3. Program the prediction model
4. Visualize the prediction model
5. Validate the prediction model