# DS 784 – Project Idea Summation

### Project Title: (working title)

Social Media Content Optimization and Brand Advocate Identification

### 2.) Project Type

This project will be Client-Based. The client for this project is The Brewers Association (BA), a not profit organization focused on promoting and protecting American craft brewers, their beers and the community of brewing enthusiasts. There website can be found [here](https://www.brewersassociation.org).

### 3.) Project Description

(Brief Background and Overview of Project – include data science concepts that will be applied)

This project will be using data gathered from Facebook’s Graph API. It includes two main parts, the first is an analysis of previously published content. This analysis will be used to answer multiple different questions like, what type(s) of content engages our audiences the most (links, photos, videos, GIFs, etc.)? Are there words that are more appealing, certain images (color palette themes, lifestyle, technical, etc.), does specific days of the week and times matter, frequency, etc.

The second part will focus on identifying brand advocates of BA, specifically those who will help to spread the company’s message to the most people. This portion of the project will lean on many others research, and example of how these individuals could be identified is show in the paper *A Data-Based Approach to Social Influence Maximization* (Goyal, A., et. al.). The final algorithm that will be used will be depended on what I find in my research.

### 4.) Project Purpose/Rationale

BA has developed a need for this project because of the [recent announcement](https://www.engadget.com/2018/01/13/facebook-news-feed-people/) from Facebook outlining changes to the algorithm used within their news feed. The quick overview of this announcement states that the company will introduce less paid content from media companies into users feed. BA like many other companies have used the ability to sponsor content to create a wider reach with their messages, because of this change they likely could see a loss in this number. The overarching reason for this project is to counter act this problem.

### 5.) Project Objectives

The objectives of this project are three-fold and interconnected.

1. Gather BA relevant data from the Facebook API
2. Develop a cut in time dashboard and analysis that answers the question outlined in the project description
3. Identify top individuals that are accredited with high influence for BA related content

### 6.) Resources/Contacts that will be utilized for the project

BA will provide subject matter expertise relevant to their needs and what current metrics are used to within the company. For data science related problems I will use my own network of colleagues as well as other students within the UW Data Science program.

There is a possibility that the shear amount of social media data that could be needed to complete this project will require hardware beyond what a local computer could provide. If this is the case, AWS will be used in compute processes. This is quite likely when it comes to the objective of identifying the top individuals.

### 7.) Timeline

The time line of this project will be something similar to this:

1. Proposal Submission (Feb 5)
   1. agreed upon document with BA outlining the entirety of work to be done for the project
2. Activity Update 1 (Feb 19)
   1. Gather post related from Facebook for these accounts:
      1. Brewers Association
      2. American Homebrewers Association
      3. CraftBeer.com
   2. Transform data into a somewhat relational form for use in analysis
3. Activity Update 2 (March 5)
   1. Begin analyzing data to answer high level questions outlined in project description
      1. Begin developing dashboard (Tableau)
   2. Begin research on identifying brand advocates that “spread the word”
4. Activity Update 3 (March 19)
   1. Continued work on answering high level questions
   2. Begin analysis and application of research for brand advocates
      1. This likely will require identifying more data (2nd and 3rd degree data points)
5. Activity Update 4 (April 9)
   1. Finish work on high level questions
   2. Continue work on brand advocates
6. Activity Update 5 (April 23)
   1. Finish work on brand advocates
   2. Complete final write up and presentation (if needed)
7. Capstone Submission (May 11)