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# Interacting with Agricultural Policy 280 Characters at a Time: Twitter in the Classroom

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Abstract
This article describes how Twitter can be used as a pedagogical tool to increase student engagement with agricultural policy both inside and outside of the classroom. This assignment, which can be tailored by instructors to meet learning objectives for a variety of course levels, can be used specifically to bridge the gap between economic graphs and real-world applications. In addition to increasing student familiarity with current events and real-world application of agricultural policy, the Twitter assignment requires students to operate on every level of Bloom's taxonomy with a focus on students' creativity and critical analysis skills.

## 1 Introduction

In a course that discusses agricultural policy, students will analyze the economic effects of tariffs, quotas, and subsidies. They will calculate and identify consumer surplus, producer surplus, and deadweight loss. What students may forget in a sea of graphs and calculations is the human element behind the policies. Who created the policy? Why did they create the policy? Who are the winners? Who are the losers? Who are the special interest groups? Answering these questions provides a fresh perspective to students that brings the graphs and calculations into focus as students see how the policy applies to real-world events.

The purpose of this article is to describe how Twitter can be used as a pedagogical tool to increase student engagement with agricultural policy and current events both inside and outside of the classroom. I use Twitter as a pedagogical tool to promote higher levels of thinking in both an Introduction to Economics course and a 400-level Agricultural Policy course to bridge the gap between economic graphs and current events. Students become actively engaged with agricultural policy by creating tweets that relate to current events and course material. The Twitter assignment has increased classroom participation and interest in the course material, while developing students' higher-order thinking skills.

### 1.1 Why Twitter?

Twitter is an open, social microblogging platform that allows users to share 280 characters of text, known as tweets. Users may also attach hyperlinks, images, and video to each tweet. Twitter allows for asymmetric user relationships in that users can be followed without following the same users back.

Twitter is a social media platform of choice for many because of its ability to keep users up-to-date with the latest news and the fact that close to half of Americans ages 18–24 are Twitter users (Perrin and Anderson 2019). While SnapChat and Instagram, social media platforms used to share photos, videos, text, and drawings, attract more college-aged students, these platforms are less likely to have regular users that report policy related to course materials (Shearer and Matsa 2018).

In previous versions of the courses, course assignments were focused on exams, quizzes, a term paper, homework, and a series of current event articles posted on the learning management system for each unit. Although students were expected to review the current event articles because they would appear

on exams and quizzes, I found that students were not reading the articles with any sense of regularity. The Twitter assignments were devised as a way to encourage students to consistently interact with current events as they related to the class. Based on qualitative comments, students appear more confident in connecting current events based on assessment questions using Twitter.

# 2 Twitter in the Classroom

Twitter in the classroom has been well documented in the higher education teaching literature. In a seminal study on Twitter in higher education, Junco, Heiberger, and Loken (2011) found that using Twitter in an introductory seminar generated a deeper discussion of course content as compared with a traditional in-class student experience. My initial interest in using Twitter in the classroom stemmed from an article discussing how it was used in a project in a higher education geography course (Anderson 2017). In economics, the literature specific to Twitter centers on its use as an alternative to disseminating information through a learning management system (Al-Bahrani and Patel 2015; Al-Bahrani, Patel, and Sheridan 2017). Similar studies have been conducted in other disciplines (e.g., Elavsky, Mislan, and Elavsky 2011; Gikas and Grant 2013). Kassens (2014) is one of the only studies in economics to use Twitter as a writing assignment. She noted that Twitter assignments can improve writing skills in economics through forced efficiency via Twitter's character limit since students must focus on quality over quantity, improving focus on the key issues.

## 2.1 Twitter Assignment Overview

Each student selects an agricultural policy leader or organization to focus on and tweet about from their perspective for the duration of the assignment (for instance Sonny Perdue as a leader or American Farm Bureau as an organization). They create an account with an instructor-approved handle, and their tweets are only visible to their Twitter followers, which are restricted to the instructor and the class. The assignment can be varied depending on the length of the course/unit. For example, a student in the 400-level policy course may be required to tweet a minimum of three times a week for eleven weeks. Students in an introduction to economics course may be required to tweet over a shorter number of weeks to satisfy the Farm Bill unit.

Students are instructed to construct tweets from their leader/organization's perspective given course material and current events, and include links to relevant articles with a tweet of how they think their leader/organization would react to the article. They are also required to interact on Twitter with other students in the course on a weekly basis by replying to their peer's tweets.

The assignment(s) counts for between 8 and 15 percent of their final grade, depending on the length of the project, and serves as a creative alternative to a traditional term paper. Tweeting regularly throughout the semester translates into a moderate-length term paper depending on the required tweets per week. An advantage of the assignment over a traditional paper is that students are required to engage with the course content consistently rather than in a shorter chunk of time. The consistency of the interaction with the material builds policy fluency, in which students can quickly recall the information necessary to discuss the current state of agricultural policy. This is an important skill that can be used in job market interviews with agricultural agencies, crop insurance providers, and agribusiness companies.

As a result of the tweets, students develop a repository of resources to discuss in class. I use examples from recent student tweets as class starters or to create a Twitter poll based on current events. A rubric is provided to students that outlines exemplary work related to content, interaction with classmates, and course themes (see Supplementary Appendix). The instructor requirements associated with this assignment are: (1) initial setup of approved leaders/organizations, (2) monitoring the content of tweets, and (3) grading the tweets based on the rubric. Compared with traditional assignments, the overall time required for this assignment is similar, while the benefits to both students and the course are greater. Course instructions for students are included in the Supplementary Appendix.

## 2.2 Pedagogy/Learning Objectives

The learning objective for students is to become actively engaged with agricultural policy by creating tweets that reflect policy leaders' responses to current events and course material. This creative assignment engages students in both analytical and evaluative thinking. Students are not searching for the right answer; rather, they are extending course information as it applies to their knowledge of their leader/organization to address current events. The assignment requires students to analyze the material, make decisions, and create an end product that demonstrates understanding of both course material and their leader/organization.

Students also develop a fluency with current events and course concepts since they are consistently required to connect course material to current events. The frequent tweets can serve as a method of retrieval practice for students as they are consistently building their base of core knowledge related to course content. The value of retrieval improves long-term learning and retention (Agarwal, Bain, and Chamberlain 2012). Similarly, Blessing, Blessing, and Fleck (2012) found that frequent tweets using course material can improve student learning.

This assignment engages students in higher-order thinking. To successfully complete the assignment, students must generate tweets based on current events and class content, compare and contrast the views of leaders, critique a Twitter user's argument, and create an accurate representation of a leader/organization's voice.[1] The assignment works because students are not expected to respond with the "right" answer; they are extending course information as it applies to their knowledge of their leader/organization to address current events in an original way.

## 2.3 Developing Twitter Identities

I created a master list of Twitter accounts that students could use to select their Twitter identity. The list is composed of both agricultural leaders and organizations. Students signed up for their Twitter identity using a Google spreadsheet. Students are not allowed to use their personal Twitter accounts for the assignment, and the Twitter handle must follow a standardized format (e.g., LeaderFirstInitialLastNameClassName). Students may only follow the instructor and their classmates.[2] The class selects a profile picture/banner to display on all Twitter accounts associated with the project, and a class hashtag is chosen to easily track all course tweets. The student's Twitter account privacy settings must be changed to protect the user's tweets so that only followers can see the tweets.

Students are required to create a predetermined number of original tweets per week in addition to interacting with a peer at least one time per week. Retweets do not count as an original tweet since they do not require the student to comment on the information. Bloom's spiraling, a process of starting at lower levels of Bloom's taxonomy and steadily increasing the level of thinking required to compose tweets, can be used to scaffold the assignment.[3] For example, students are encouraged to start the project tweeting about where a leader is, what they are working on, and who they are meeting as they track their leader/organization on Twitter and/or the news. This builds confidence and increases familiarity with their leader/organization's voice. As the project progresses, students are encouraged to find articles and construct tweets related to how they think their leader/organization would react to the article to reach higher levels of Bloom's taxonomy.

[1] To help students connect to their leader/organization's voice, students complete a Twitter Voice assignment prior to the start of the Twitter assignment. The assignment can be found in the Supplementary Appendix.

[2] Students are encouraged to look at their tweets daily, but following the actual leader could draw attention from the actual leader and cause them to report the account as a bot or fake or the account could be suspended for impersonation. This is largely avoided because accounts are kept private, but I err on the side of caution here.

[3] Bruner (1960) originally coined the term spiral curriculum.

The following are examples of student tweets resulting from the assignment:

Example 1:

Leader 1: *The Trump administration's proposed cuts to the SNAP program will leave 1 million children ineligible for free school lunches. They are unlikely to get the nutrition that they need at home. We should be giving more children the opportunity for free lunch, not taking it away.*

Reply to Leader 1 by Leader 2: *With efforts to try to cut back spending, many people like the elderly and children will be greatly affected. The proposal's main focus should not be on saving money, but on helping those it will affect.*

Reply to Leader 1 by Leader 3: *I agree that children and the elderly need to be helped, but where are the adult children/parents? If they are not willing to help themselves (working a job or 2—and saving money), why should the government? Requirements for SNAP should be changed regarding work requirements.*

Example 2:

Leader 4: *The hemp and cannabis industry is bringing young people back into agricultural jobs.*

Reply to Leader 4 from Leader 5: *As the market for hemp grows on a yearly basis, the number of young farmers is surely going to continue to rise.*

Reply to Leader 4 from Leader 6: *In the Senate, I worked to secure language for the legal cultivation of hemp. We must continue to work to protect the farmer's right to diversify their crops.*

Reply to Leader 4 from Leader 7: *Hemp is sparking the interest of young farmers. Information is still gathered on the eligibility for crop insurance and other payment programs. The THC level in the crop is a determining factor that has to be regulated.*

As students become more comfortable tweeting, their confidence with course material increases as they develop a more solid and consistent Twitter voice based on their selection. In addition, the Twitter assignment offers students an alternative to participating in large classroom environments. I have seen students who were initially reluctant to share their opinion in class exceed the required number of tweets for the assignment, a signal that the assignment generated interest above and beyond its requirements. While this is certainly not a guaranteed outcome, it does provide an important potential benefit of using Twitter in the classroom.

The effectiveness of Twitter in the classroom will vary depending on its purpose and use. Since 2017, I have used this assignment in five sections of two courses: an introductory agricultural economics course and a 400-level U.S. agricultural policy course with an intermediate microeconomics prerequisite. Below I offer guidance for instructors considering implementing Twitter in a policy specific course, but many of the recommendations are appropriate for any assignment using Twitter.

## 2.4 Challenges

Using Twitter in the classroom has presented the following challenges: (1) class hashtags, (2) how to evaluate tweets, (3) retweeting, (4) user names, (5) framing the assignment, (6) banners, and (7) protect tweets.

1. Initially, I did not require students to use a course hashtag (e.g. #AG 400) with every tweet. This made tracking the class tweets more challenging since I follow more than students.
2. Second, assessing the tweets presents the typical grading challenges in terms of addressing participation, quality, and engagement with peers.
3. Third, without any tweeting restrictions, many students began to retweet without comment (e.g., copy a tweet from someone else with nothing additional added).
4. Fourth, usernames were initially not standardized, and students chose names that could be confused with the actual person.
5. Fifth, I initially framed the assignment as an activity separate from class discussion, creating missed opportunities for students to connect the assignment to course ideas.

6. Sixth, I did not standardize course banners/profile pictures, and some students chose backgrounds/profile pictures that were the same as their chosen leader/organization.
7. Seventh, I did not require students to protect their tweets, and this made it hard to restrict discussion to the class.

## 2.5 Recommendations for Challenges

The challenges outlined in section 2.4 are based on my first attempt incorporating Twitter in the classroom. I update the assignment each semester to address new challenges, provide clearer directions, and/or change expectations. Below are recommendations for instructors using Twitter for the first time.

1. Require students to use a course hashtag on every tweet (e.g. #AG 400). The primary benefit of the hashtag is to connect the instructor with students and allow students to easily find their peer's tweets. In addition, the hashtag makes it easy to search tweets from the course and track assignment participation. The course hashtag ends when the course ends.
2. Create a rubric that clearly describes your expectations regarding participation, quality of tweets, and engagement with peers. The rubric in the Supplementary Appendix emphasizes the requirement that the tweets reflect course themes to signal to students the importance of satisfying this element of the assignment. The rubric also outlines the minimum number of tweets required weekly and for the course. If you do not set a weekly minimum, some students may delay tweeting until the last two weeks of the assignment. If students have created a Twitter account for this assignment, it is straightforward to search their Twitter feed and observe the dates that they posted. Last, use Twitter lists to help you group students together so you can more easily track their posts.
3. Do not allow students to retweet as part of their total tweeting requirements. Retweeting without comment does not align with the purpose of the assignment and does not generate further discussion with peers. Emphasize to students that each tweet should be related to course themes in the voice of the leader/organization. The student must compose a tweet that explains why an article was chosen and/or how they think their leader/organization may respond.
4. Require a standard username each semester. I did not do this the first time I ran the assignment, and students chose names too close to the actual leader/organization. In addition, some students used their personal account, and this is problematic since the tweets may not reflect their personal views but can be seen by their followers.
5. Use student tweets in class. This helps students view the assignment as part of the course rather than as a separate assignment. Use their tweets to start a class discussion. Use the articles they have tweeted about as required reading for discussion forums. Create exam/quiz questions based on the twitter conversations. Instructors can create both formative and summative assessments based solely on student tweets.
6. Require students to use a standardized course banner and profile picture. This signals to anyone that sees the tweets that the account is for educational purposes only. The profile picture could be standardized as the school's mascot for added clarity.
7. Require students to change their privacy settings to protect their tweets so that only followers can view their content. Since the students are tweeting as if they are leaders/organizations, it is important that people outside of the class cannot see the content. We do not want students to interact with the larger Twitter community.
8. Require students to write a reflection after the Twitter assignment ends. This allows students to reflect on the course themes they connected to current events while also tracking their interaction with peers. It also provides valuable information that can help improve the assignment for future students.
9. Show students' techniques for detecting bias in sources. This helps students make sure that the source they are using in their tweets is reliable and helps put "fake news" in a clearer context. Examples of resources to enhance digital literacy are the CRAAP test (Lewis 2018) and the Check, Please! Starter course (Caulfield 2019).

# 3 Conclusion

The Twitter assignment is a pedagogical tool to promote higher-order learning. Using Twitter creates a strong connection to course material and builds agricultural policy fluency. To successfully complete the assignment, students must operate on every level of Bloom's taxonomy: they must identify and define concepts, summarize content and rewrite tweets in their own words, generate tweets using current events and class content, discuss the views of other leaders in comparison to their tweet, critique a peer's tweet, and create an accurate representation of their leader/organization's voice.

All assignments carry benefits and costs, and the Twitter assignment is no different. Using Twitter in the classroom may result in changes to your syllabus, as you respond to a trending topic in class. While this can make the class challenging to prepare for, it is worth it to build policy fluency and connect students to the graphs and calculations necessary to compare and contrast policies. The assignment is suitable for small to mid-size classes (roughly 65) even without the help of a teaching assistant. The time required to grade the assignment is similar to what is required to grade a term paper of similar length, especially with the use of a class hashtag and standardized student account names.

For courses that discuss agricultural policy, the Twitter assignment is a good option because of its ability to connect students with both the course content and their peers. Students noted that the assignment led to a deeper understanding of the material, kept them involved with current events, exposed them to different points of view, and made them feel more prepared for class. Incorporating Twitter into a course also provides students with sources for continued learning as they have a list of leaders/organizations they can track following the conclusion of the course.

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