

twittering through Psychology: Using Social Networking for Out-of-Class Instruction

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Abstract

Twitter, along with other social networking sites like Facebook, has become very popular among college students. These sites enable people to be in constant contact and communication. Their value in meeting educational objectives is less clear. We describe an educational intervention in which we use Twitter to remind students of class topics. The intervention itself is quite slight: students received a humorous and informative tweet on average once per day. Students showed an increase probability at recalling items that were tweeted about. This appears to be an effective way to increase memory for important class concepts.

Introduction

Many people have recently discussed how social networking might be used as a means of instruction (e.g., Galagan, 2009; Manzo, 2009; Young, 2009). For example Young discussed how these sites could be used during class so that students could ask or respond to questions they might not have otherwise. However, very little research has been conducted to examine effectiveness. One social networking site, Twitter, allows the quick transmittal of short messages (“tweets”) to anyone who subscribes to a user’s message feed. These messages are meant to keep the receivers apprised of the sender’s thoughts and actions at regular intervals. These messages can be received not only through traditional computers but also most mobile devices. Through these means people can receive twitter messages whenever and wherever they are. Some Twitter users have begun using the site to tweet as historical figures, either humorously (e.g., historicaltweets.com) or in a more educational way (e.g., twhistory.com). We took these ideas and implemented an educational intervention in which we used Twitter to send messages to our students, approximately once a day, outside of class.

Method

Participants

One-hundred forty undergraduates (101 females, 39 males) at the University of Tampa participated in the study. All were enrolled in one of four introductory psychology sections taught by one of the three authors.

Materials

All sections used the full edition of Weiten’s textbook *Psychology: Themes and Variations* (2010). We wrote 84 tweets, 6 per chapter (see handout), that were broadcasted to certain students throughout the Fall 2009 semester. Tweets were written to cover the main aspects of a chapter. Students received the tweets once per day on average. The tweets were written to be both informative and humorous, pertaining to a topic that was recently covered in class. We also made the tweets appear to come from different individuals, by prefixing each tweet with a person’s name (to mimic the “@” convention within tweets to indicate a receiver, we developed a “!” convention to indicate a sender). We also adopted as much as possible other conventions and abbreviations popular among tweeters.

In addition to using twitter.com, we used twuffer.com in order to queue tweets. We also used the Selective Twitter Status Facebook application to transfer tweets to a Facebook fan page that students could subscribe in lieu of the twitter feed.

In order to assess the impact of the tweets on student memory, a “brain dump” activity was created. In this activity, students listed five items that came to mind first when thinking about a particular chapter. They also had to list the source of that memory.

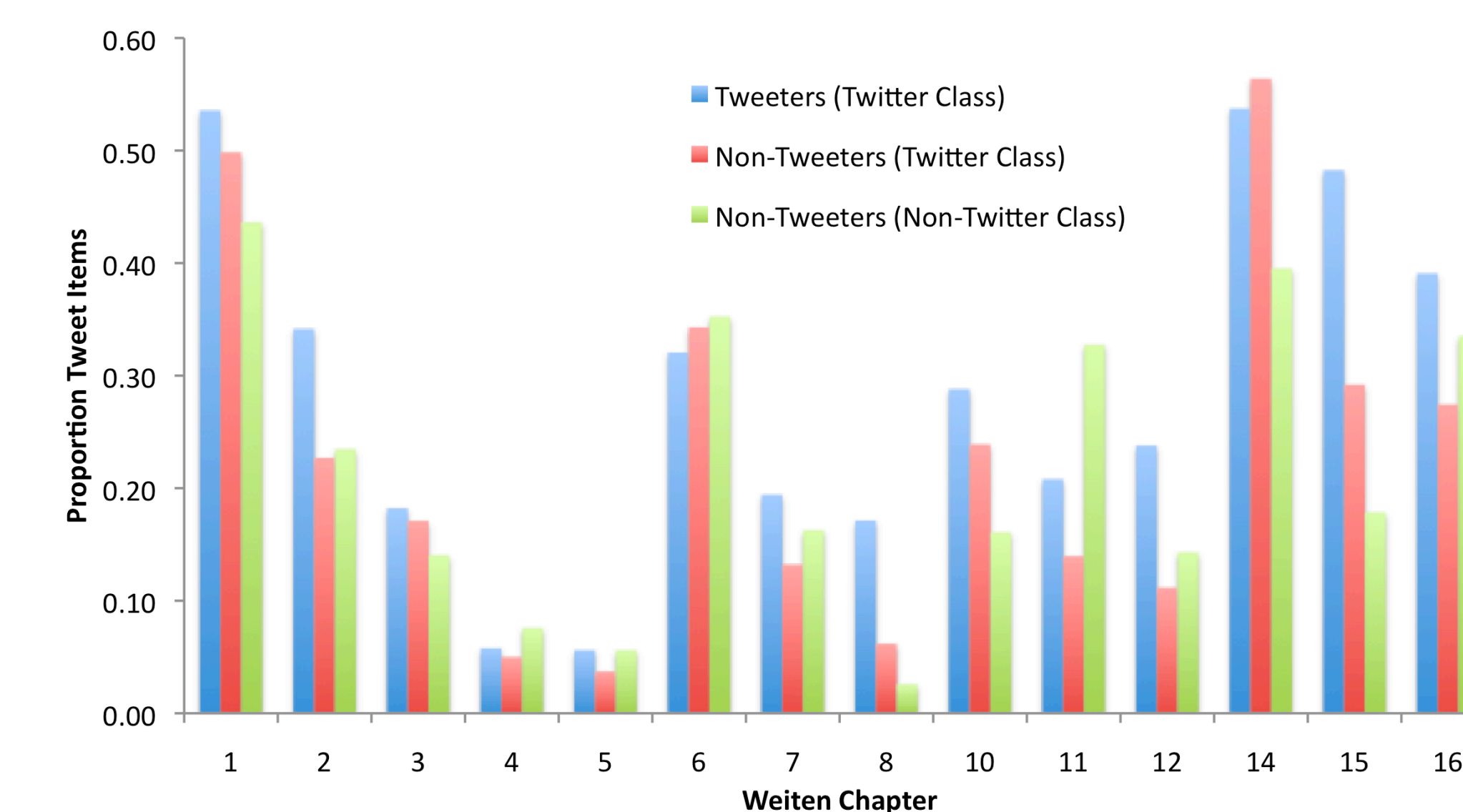
Procedures

At the beginning of the semester, students in three of the four sections were told about the twitter feed and asked to subscribe to it. At four points during the semester (the class period before an exam) students did the brain dump activity over the chapters to be on the exam.

Results

We used the brain dump activity to assess the impact of the tweets on memory. We analyzed each item that the student wrote as either pertaining to a tweet item or not. We adopted a liberal criterion for counting an item as a tweet item. For example, a tweet from chapter one was, “! Skinner: @Watson good call on just the observable behavior. I’ll tell you more about operant conditioning and free will at poker Friday.” We gave credit as a tweet item if the student listed anything to do with Skinner, Watson, behaviorism, operant conditioning, or free will. While this casts a wide net, it makes the task of deciding if a an item was a tweet item or not more objective.

We informed three sections about the tweets, one section we did not. Some students in the three informed sections chose not to subscribe to the tweets. The graph shows the percentage of tweet items, split by chapter, between those students who followed the tweets, those who knew about the tweets but did not follow, and those who did not follow the tweets at all.



Across chapters, tweeters listed a tweet item 29% of the time, non-tweeters in the tweet class 22% of the time, and the other group of non-tweeters, 22% as well. The differences between the three groups are significant ($F(2,1740)=14.92, p<.01$). Post-hoc Tukey HSD tests reveal that the differences between the tweeters and two non-tweeter groups are significant ($p < .05$).

In examining the source information that students listed, in only 6 instances (out of 5891) did a student explicitly state that their remembrance came from a tweet.

Discussion

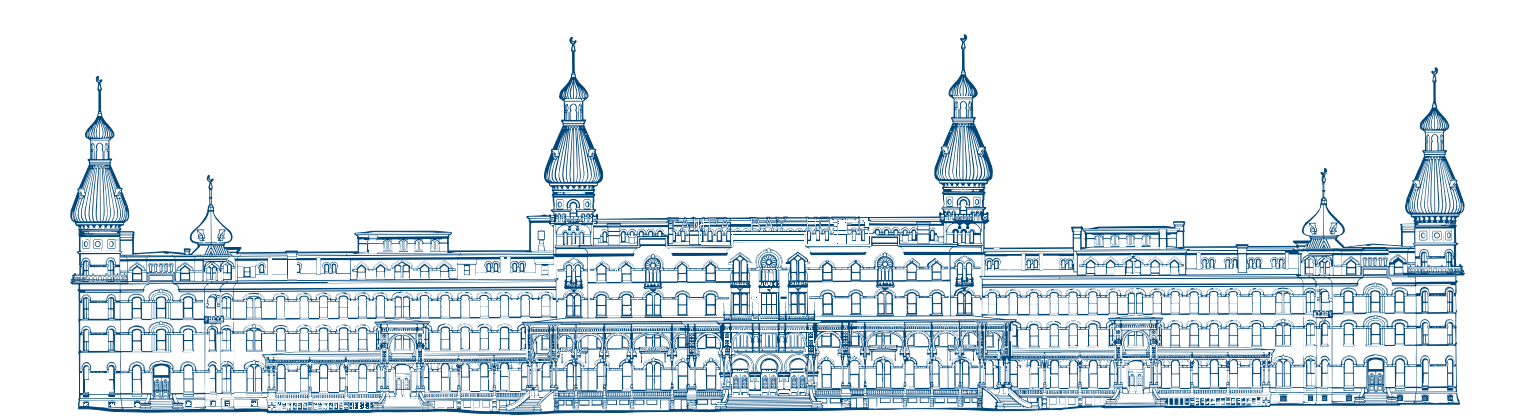
The results indicate that we were successful at increasing the probability of an item being remembered by tweeting about it. Students did not appear to be aware that the tweets were influencing their memories. Given the incidental nature of the intervention, the fact that even a slight effect exists is interesting. At most students spent a couple of seconds a day reading the tweet messages. Also, the fact that the students in the twitter class who followed the tweets versus those who did not follow differed significantly from each other addresses a potential confound of instructor differences. For items that instructors deem most important, this simple intervention appears to be effective.

Example Tweets

- !Watson: Little nephew Albert in from out of town. Need to find someway to entertain him-bring him into the lab?
- !Ebbinghaus: Met HOT chick at bar 2NTE, her name is YAT PED. Hope I can remember it. (LOL) My BFF Wundt not there.
- !Harlow: Happiness is a terry cloth monkey.
- !Little Miss Muffet: WTF! Spiders! Why did it have to be spiders? My one and only phobia.
- !Asch: Went to movies to see 2012, but 4 people ahead of me got *New Moon* tickets, so I saw it. Not sure why.

References

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