

Affordance Use Differences Between Personal and Professional Scholarly Tweets.

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INTRODUCTION: It is imperative that scholars investigate social media sites because their policies, configurations, designs, and affordances (the perception of functional attributes of objects by an agent in its environment (Gibson, 1977)) are constantly evolving in order to meet the needs of both their users and investors. The focus of this work is to explore the way in which scholars make use of affordances differently when they are creating personal and professional (as categorized by Amazon Turkers) messages in the microblogging site Twitter. This is important because social media is having an impact on the once invisible backstage activity of scholars, as Priem (Priem, 2014, p. 264) argues, by bringing “the background of scholarship... out onto the [front] stage.”

Twitter, the 9th most visited website in the world, claims over 200 million active users who create over 400 million tweets each day (Wickre, 2013); it is a “global platform for public self-expression and conversation in real time” (Twitter Inc., 2013). Research has shown that approximately 10% to 30% of scholars (Priem, Costello, & Dzuba, 2011; Pscheida, Albrecht, Herbst, Minet, & Köhler, 2013; Rowlands, Nicholas, Russell, Cauty, & Watkinson, 2011) make use of Twitter. This social media site presents a variety of unique affordances with which users can create tweets; these include the ‘@’ at symbol used to address messages to particular users (i.e. @user), the retweet feature (i.e., RT @user), the ‘#’ hashtag symbol (#ASIST) to group tweets and to search for tweets, the ability to add URLs, and the ability to add links to media (such as images and video). It is important to examine the way in which these affordances are used because they can influence the way in which the audience frames (Goffman, 1974) and interprets the tweet. This work is guided by the following questions:

- Which affordances are scholars using?
- Do personal or professional tweets vary regarding affordance use?
- To what extent do scholars use affordances?
- Does Twitter activity influence affordance use?

METHODS: The personal Twitter streams of 445 scholars were downloaded in May 2014 using the Twitter API. The sample was derived from a selection of assistant, associate, full and distinguished professors across eight disciplines (Physics, Biology, Chemistry, Computer Science, Philosophy, English, Sociology, and Anthropology) from 62 Association of American University member universities. In sum, the scholars published a total of 585,879 tweets from 2006 to 2014. The sample of collected tweets from May 2014 totals 289,934 and the amount of tweets retrieved per user ranged between 1 and 3,263. A random subset of 75,000 tweets was placed into Amazon’s Mechanical Turk (AMT) application and three Turkers categorized each tweet into one of four categories: personal, professional, non-English, and unknown.

PRELIMINARY RESULTS: Of the 75,000 tweets added to AMT, Turkers completely agreed (3 of 3) on the categorization of 34,969 (47%), partially agreed (2 of 3) on 37,355 (50%), and disagreed (0 of 3) on 2,674 (3%) of the tweets. Of the agreed tweets, 27,264 (78%) were categorized as personal and 6,810 (19%) were categorized as professional. As show in Figure 1, 67% of the personal tweets contained mentions as compared to 56% of professional tweets.

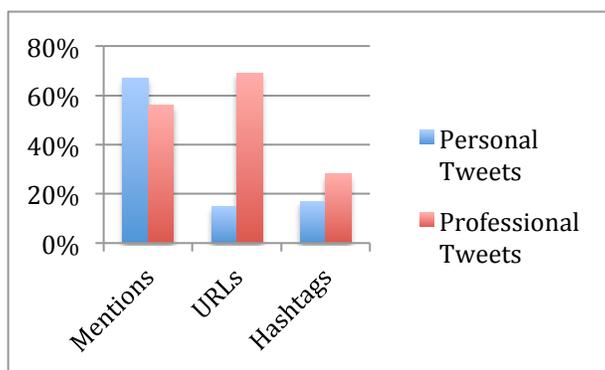


Figure 1: Affordance Use

When comparing the URLs used between personal and professional tweets, URLs were found in 15% in personal as compared with 69% in professional. Finally, 17% of personal tweets contained hashtags compared with 28% professional tweets.

PRELIMINARY CONCLUSIONS AND OUTLOOK: The analysis of this sample of scholarly tweets indicates that there are differences in affordance use between personal and professional tweets in Twitter. There are several possible implications of this work including a potential way for scholars examining altmetric data to automatically classify personal and professional scholarly tweets and evaluate their findings accordingly, advice for scholars explaining how to distinguish personal from professional tweets, and advice for university committees looking to create social media use policies.

This study has served as a useful pilot in that it has demonstrated the efficacy of this approach. Future work will compare scholarly publication frequency with tweet frequency, expand the examination of affordance use to other social media environments, provide further insight into altmetric data, and examine the implication of these findings in regards to university policy making.

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