4-2016

Engineering Outreach Education Through Social Media

Katie E. Meiergerd  
*University of Nebraska-Lincoln*, katie.meiergerd@huskers.unl.edu

Dagen Valentine  
*University of Nebraska-Lincoln*, dvalentine2@unl.edu

Jennifer R. Keshwani  
*University of Nebraska-Lincoln*, jmelander7@unl.edu

Bradley Barker  
*University of Nebraska-Lincoln*, bbarker1@unl.edu

Follow this and additional works at: http://digitalcommons.unl.edu/ucarereresearch

Part of the Bioresource and Agricultural Engineering Commons, Engineering Education Commons, Other Engineering Commons, and the Social Media Commons

Meiergerd, Katie E.; Valentine, Dagen; Keshwani, Jennifer R.; and Barker, Bradley, "Engineering Outreach Education Through Social Media" (2016). UCARE Research Products. 80.
http://digitalcommons.unl.edu/ucarereresearch/80

This Poster is brought to you for free and open access by the UCARE: Undergraduate Creative Activities & Research Experiences at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in UCARE Research Products by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.
Objective
The objective of this work is to identify ways to use social media to provide support to K–12 educators interested in implementing engineering education with their students.

Introduction
Familiarizing teachers and educators with Engineering and other related STEM fields is crucial in educating students, so ensuring teachers with access to these resources is important. Many resources have been developed to promote engineering in K-12, including WearTec (Figure 1 and 3) (Barker, 2015). Social media provides a large and diverse set of resources and tools in which teachers and educators can delve into and use. Providing aid and guidance with these resources through specific social media outputs can ease the process of finding resources for educators, as well as provide helpful suggestions for age group appropriate activities.

Methods
Accounts were set up specifically to cater to teachers in several popular social media hubs to develop a structure for providing social media access to online teaching and activity resources. These include a Facebook page, as well as an active Twitter account under the name UNL4H_WearTec. The following steps were taken to achieve this goal:
- Identified popular networking sites for social media output
- Identified consistent themes in which to post content
- Planned scheduled posts using Hootsuite to cover these topics:
  - Lesson plans and activities
  - Interesting engineering content
  - Local engineering related events

Local events relating to engineering and STEM fields were also shared, sharing specific dates and locations to encourage teachers and educators to get involved in the community. Spreading the information was difficult, but new methods using website-specific topic tracking (such as hashtags on Twitter) has allowed the posts to show up in more areas of the website (Figure 4).

Progress
The accounts that were set up have consistently posted resource-related content over the course of several months. The accounts posted three times a week, sometimes more depending on local calendar events (Figure 2). Frequent posts included content from online Engineering or STEM related fields, which provided content to better understand the real-life applications that these fields relate to. Lesson plans from a variety of sources such as teachengineering.org were shared, providing educators with useful and engaging activities for their students.

Discussion
Setting up and creating a social media presence for this project was more challenging than originally anticipated. There were a lot of factors to be considered when dealing with social media outlets, since there were a variety of ways that could be used to approach it. Using a consistent system to post has worked well so far, and keeping with consistent themes for the content allowed for easier planning and queuing of engineering content.

Future Work
- Survey educators to determine social media needs related to both content and mode of communication.
- Utilize analytical tools such as Twitter analytics to assess effectiveness of various tweets and posts.
- Create more social media outlets as needed to accompany educators needs.

References