

Sigma's 30th International Nursing Research Congress

The Role of Social Media in Catalyzing Collaborations: Exploring the Global Influence of Nursing

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Introduction/Background: In the last decade there has been an explosive increase in social media (SM) use and influence. Nursing has entered into these virtual communities representing a variety of specialties across numerous SM platforms. The use of Twitter, a networking service with strict posting character limits, has emerged as a primary SM channel for nursing. The object of this research is to explore the global reach of these efforts using a set of nursing hashtags from Asia, Europe, and North America, including World Health Organization initiatives, in the months preceding the Sigma 30th International Nursing Research Congress. This work is guided by the following research question: *What are the key characterizations of current nursing discourse on Twitter?* This investigation will include review of the volume, reach, and impact of Twitter posting associated with general nursing hashtags (#Nurse, #Nurses, #Nursing) as well as targeted campaigns (#NursingNow2020, #WeNurses, #YesThisIsNursing, #BedsideandBeyond, and #GlobalNursingExcellence). Additional hashtags may emerge during the initial data collection period and will be added as appropriate.

Methods: A Twitter-stream monitoring application has been developed using Python and the Tweepy library to collect data for this study and will capture posts associated with the aforementioned hashtags. This method has been trialed successfully in a previous North American focused project and will be expanded in this effort to capture a more global representation, including geolocation data when available. In the months immediately preceding the conference the Python scraper will retrieve nursing related tweets to populate a SQL database. Using Python and a natural language processing toolkit, the raw Tweets will be analyzed for trends and common themes. This analysis will include separating original Tweets from re-Tweets, assessment of tone using sentiment scores, and the identification of the most impactful Tweets and/or Tweepers in terms of volume and reach.

Results: The relative frequencies of the targeted hashtags will be evaluated over an initial two-week period allowing for refinement of the Python code to establish a robust tracking system. In past study this period typically produces several thousand tweets for the data set supporting efforts to capture a comprehensive near-real-time analysis of activity related to nursing on the Twitter platform. During this time, additions can be made to the tweet-set as needed, capturing emerging trends or campaigns. Data collection then continues for several months and in the weeks immediately preceding the conference a full suite of analytics, as previously detailed, is completed. When possible, the influence of world events, and/or the timing of publicized nursing campaigns are integrated into the analysis. The results are then translated using visual data mapping techniques to provide a comprehensive view of the data supporting new insights into the global reach and effectiveness of nursing on SM.

Conclusions: Nursing lacks a globally endorsed set of professional hashtags. While certain campaigns or initiatives have resulted in more focused messaging, the nature of SM does not permit ownership or control over popular tags such as #nurse or #nursing. This study will highlight the effectiveness of current SM efforts in nursing including a comparison of generic versus targeted postings or campaigns. SM is a key, albeit often overlooked, aspect of the emerging technologies that comprise our digital future. These media can be employed more effectively to deliver enhanced opportunities for collaboration and knowledge exchange, including the development of individualized personal learning networks to better prepare the profession for the future. Nursing organizations should continue to promote the importance of SM in the pursuit of global connectivity for the discipline and maximize the use of these tools in demonstrating the knowledge and critical contributions of nursing around the world.

Title:

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References:

Burton, C. W., McLemore, M. R., Perry, L., Carrick, J., & Shattell, M. (2016). Social media awareness and implications in nursing leadership: A pilot professional meeting campaign. *Policy, Politics, & Nursing Practice*, 17(4), 187-197. doi:10.1177/1527154417698143

Flury, C. G. (2017). Claiming the corner office: Social media as a leadership tool for nurse executives. *Nursing Economic\$, 35(5)*. Retrieved from <https://www.nursingeconomics.net/necfiles/2017/SO17/272.pdf>

Kung, Y. M., & Oh, S. (2014). Characteristics of nurses who use social media. *Computers, Informatics, Nursing*, 32(2), 64-72. doi: 10.1097/cin.0000000000000033

Moorley C., & Chinn T. (2016) Developing nursing leadership in social media. *Journal of Advanced Nursing*, 72(3), 514–520. doi:10.1111/jan.12870

Risling, T. (2016). Social media and nursing leadership: Unifying professional voice and presence. *Canadian Journal of Nursing Leadership*, 28(4), 48–57. doi:10.12927/cjnl.2016.24561

Scruth, E. A., Pugh, D. M., Adams, C. L., & Foss-Durant, A. M. (2015). Electronic and social media the legal and ethical issues for healthcare. *Clinical Nurse Specialist*, 29(1), 8-11. doi:10.1097/nur.0000000000000089

Surani, Z., Hirani, R., Elias, A., Quisenberry, L., Varon, J., Surani, S., & Surani, S. (2017). Social media usage among health care providers. *BMC Research Notes*, 10(1), 654. doi:10.1186/s13104-017-2993-y

Abstract Summary:

Nursing voice is being amplified on social media. However, a lack of consensus on principles to direct these efforts contributes to persistent challenges with diluted or unfocused messaging. This near real-time analysis of nursing-related Twitter discourse highlights the need for universal standards in our professional hashtags to truly advance #GlobalNursingExcellence.

Content Outline:**Introduction**

- Rise in popularity of social media use (global statistics and usage patterns)
- Overview of nursing efforts in social media including popular hashtags and campaigns from around the world (presentation of hashtag set used in this research)

Body

Social Media 101 (statistics on content produced per minute)

- Popular platforms used by nursing organizations and individual nurses

- Usage by health care professionals (statistics)
- Introducing content aggregators – the hashtag #

Collecting Social Media Data

- Overview of data collection process (explaining Python and how natural language processing or NLP aids in this work)
- Brief history of the use of the method, and how it is refined in the initial weeks, hashtags added, or removed as new trends emerge, how data is pulled from Twitter
- Details on the number of tweets gathered during the project and how these are prepared for analysis

Results

- Use of visual representations to allow participants to easily see the progression of a hashtag over time, trends related to frequency, re-tweets, etc.
- Tone and sentiment scoring will also be displayed with several ‘tweeted’ examples to explain this analysis
- Top influencers in nursing will be identified with visual representation of most impactful tweets, considering volume and reach
- Lastly a discussion of #nursing impact in comparison to other healthcare profession campaigns will be provided visually

Conclusion

- Call to action for nursing to develop a standardized global set of social media hashtags
- Role of global nursing organizations in promoting and leading this work
- Power of social media in catalyzing collaborations and creating significant connections in nursing to advance both practice and research and in supporting the creation of valuable personal learning networks (PLNs), with a few practical tips to conclude on how to create or enhance your own PLN

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Author Summary: Tracie Risling RN, PhD is an Associate Professor in the College of Nursing at the University of Saskatchewan. Her program of informatics research has two foci, social media and the advancement of professional and patient voice, and the development and implementation of patient-centered technologies. Dr. Risling is exploring the role of technology in supporting patient empowerment and engagement through access to electronic health data, and specific application design for healthcare transition.

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Author Summary: Derek Risling MSc IS, MBA, PMP is an ICT professional and Senior Project Manager. He has a diverse background in software design and development, with a particular interest in blending user and collaborator perspectives into software creation and developed the social media analytic processes featured in this presentation.