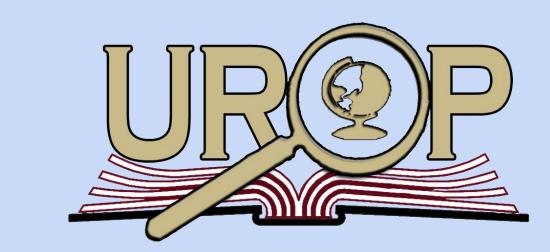


Communication of STEM to Diverse Stakeholders <u>Lily Johnson</u> and Will Hill



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Introduction

• This study explores the various stakeholder audiences and how communication is most effectively generated, communicated, and received to its respective communities. The RIDER program is attempting to advertise its projects to a wider audience for the purpose of collaboration, funding, and support. The difficulty lies within the mediums needed to execute their goals. Each category requires a different medium or method to reach its audience.

Methods

- This study focuses on the following stakeholders: researchers, students, politicians, and community members.
- Data was collected from the use of peer-edited resources

Conclusion

• Each demographic group has a different medium that must be utilized to best reach its audience. Social media is generally the best outlook for student and community member stakeholder, but is not as effective of a resource for politicians and researchers. Researchers tend to prefer personal interactions paired with short, comprehensive overview of objectives and past or present work. Politicians must be guided through their best interest of creating social solutions that will increase the strength of their platform. That can best be accomplished through meeting groups, tours, set-up phone calls, and department newsletters.

Discussion

- The research found allows for a broad overview of each category and level of stakeholder, however, limitations do exist
- All categories targeted at the international level are culturally dependent, and

what may work for some counties, may not work for others

- The current social media means are conclusive to the current popular modes; innovation of a new platform and relevance of each platform may age with time and replace the current selection
- The findings have determined that the least amount of research for stakeholders in current production lies in the regional category of each stakeholder
- Further research can be built upon regional outreach alongside new media platforms that may rise in relevance

Findings

Stakeholders:	Local	Regional	National	International
Community Members	Social media, twitter, and Instagram, to highlight local events offered and show project progress to build interest (Mongaji)	information to larger	 Simplified information presentation, less charts and data, more clarification questions, and simple explanations Drop preconceived notions on what a community may want and opening communication to gain more insight on what the public would want to see and support (Joosten et al) 	 Cultural themes influence the exact targeting Social media is the super-connector Posting the experiences of people in the field to show primary experience to build credibility (Jurgens et al) Facility handouts such as one-pagers and targeted videos in a variety of languages (Cunningham-Erves et al)
Students	• Social media, ex Twitter, Instagram and Facebook, to provide links to local events and academic opportunities (Mongaji)	 Offering research opportunities to undergraduate level students to build relationships and foster current and future research collaboration Community building events to encourage collaboration (Schneider et al) 	 Social media provided quick responses to hard questions to save time and build trust enables quick communication Combination of multiple social media platforms, specifically Twitter, LinkedIn, YouTube, Flickr (Clark et al) 	 Attending and participating in international recruitment fairs virtually (Onk & Joseph)
Researchers	 Introductory meetings to establish if a collaboration should be formed Relationship building within the local STEM community to foster relationships (Pratt) 	• Social practitioner sessions sponsored by research organizations to create a forum for multiple parties to communicate for potential collaboration (Hinkin et al)	• Short, comprehensive innovation portfolio to send to possible researchers in the field or find a best match (Flipse et al)	 Desktop reviews of existing opportunities for information Semi-structured interviews with planning professionals Designated conferences and web portals (Hurley et al)
Politicians	 Social media is not a good outlet for outreach Contact mapping (Gibbons et al) 	 Set up phone-calls, meeting, working groups, and tours with a segment of gov. targeted at sustainability and climate welfare (Gibbons et al) 	 Annual virtual conferences to discuss issues in the field and solutions Submit short articles of projects and research to state government department newsletters (Gibbons et al) 	 Stakeholder workshops and conference presentations Face-to-face engagement with written documents Formatted in simplified terms Publishing work in international peer-reviewed journals (Uzochukwu et al)

References

Cunningham-Erves, Jennifer, et al. *Engagement of Community Stakeholders to Develop a Framework to Guide Research Dissemination to Communities*. Wiley Online Library, 25 May 2020, https://onlinelibrary.wiley.com/doi/full/10.1111/hex.13076.

Flipse, Steven M., et al. "Setting up Spaces for Collaboration in Industry between Researchers from the Natural and Social Sciences - Science and Engineering Ethics." *SpringerLink*, Springer Netherlands, 7 Mar. 2013, https://link.springer.com/article/10.1007/s11948-013-9434-7.

Gibbons, Phillip, et al. *Some Practical Suggestions for Improving Engagement between Researchers and Policy-Makers in Natural Resource Management*. Wiley Online Library, 10 Dec. 2008, https://onlinelibrary.wiley.com/doi/full/10.1111/j.1442-8903.2008.00416.x?casa_token=xKovCChjYb0AAA AA%3AT5QSZYOEKCpkRauu4E1PKrO98keYOHQ5lCjHKcQmUdCzqawVK9kI2r5hVqnl5LAZW0gZlvS o7niYUaY.

Hinkin, Timothy R., et al. "Developing Mutually Beneficial Relationships between Researchers and Organizations." *Developing Mutually Beneficial Relationships between Researchers and Organizations*, 1 Jan. 2007, https://ecommons.comell.edu/handle/1813/72048.

Hurley, Joe, et al. "Exchange between Researchers and Practitioners in Urban Planning: Achievable Objective or a Bridge Too Far?/the Use of Academic Research in Planning Practice: Who, What, Where, When and How?/Bridging Research and Practice through Collaboration: Lessons…" *Kudos*, Taylor & Francis, 2 July 2016, https://www.growkudos.com/publications/10.1080%252F14649357.2016.1190491/reader.

Joosten, Yvonne A., et al. "Enhancing Translational Researchers' Ability to Collaborate with Community Stakeholders: Lessons from the Community Engagement Studio: Journal of Clinical and Translational Science." *Cambridge Core*, Cambridge University Press, 31 Oct. 2018,

https://www.cambridge.org/core/journals/journal-of-clinical-and-translational-science/article/enhancing-translational-researchers-ability-to-collaborate-with-community-stakeholders-lessons-from-the-community-engage ment-studio/AF78811DF6C4223A44B6910FC4347CAE

Jurgens, Michele, et al. "Social Media Revolutions: The Influence of Secondary Stakeholders." *Business Horizons*, Elsevier, 19 Jan. 2016,

https://www.sciencedirect.com/science/article/abs/pii/S0007681315001524?casa_token=tQXegUvwA9gAAA AA%3A8VuSelneOVwb-13L1IZMHbdk3wrE-ga-gI2QvBVQo1WdvU6CsJVn30L_IAG5d_h4WLXRAKmi YQ.

Mogaji, Emmanuel. "Strategic Stakeholder Communications on Twitter by UK Universities." *SSRN*, Research Agenda Working Papers, 7 Sept. 2019, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3445869.

Onk, Veronica Bou, and Matthew Joseph. *International Student Recruitment Techniques: A ... - Ed.* Journal of Academic Administration in Higher Education, 2017, https://files.eric.ed.gov/fulltext/EJ1139145.pdf.

Pratt, Bridgett, et al. "What Should Community Organisations Consider ... - Springer." *Springer*, Health Research Policy and Systems, 11 Sept. 2020,

https://link.springer.com/content/pdf/10.1186/s12961-020-00617-6.pdf.

"Relationship Quality in Higher Education Marketing: The Role of Social Media Engagement." *Taylor & Francis*, Journal of Marketing for Higher Education, 27 Dec. 2016,

https://www.tandfonline.com/doi/full/10.1080/08841241.2016.1269036?casa_token=87K9NbmcnWgAAAA A%3Aw5kdEzocyu9HMHIdqwjfGYO8Hd_dGR1qfvHsvil0OV8vvtAiv4vmgkwPR_meNRDBreCYHerdpEh S

Schneider, Kimberly R, et al. "Planning and Implementing a Comprehensive Student-Centered Research Program for First-Year STEM Undergraduates." *Journal of College Science Teaching*, National Science Teachers Association, Jan. 2015,

https://www.jstor.org/stable/pdf/43631937.pdf?refreqid=excelsior%3Ae216c32403f5ad28c3b3437026705fc7 &ab_segments=&origin=.

Uzochukwu, Benjamin, et al. *The Challenge of Bridging the Gap between ... - Biomed Central*. Globalization and Health, 4 Nov. 2016,

https://globalizationandhealth.biomedcentral.com/track/pdf/10.1186/s12992-016-0209-1.pdf.

