**Public Outreach Evaluation Tool (POET): defining the reach of social media activities**

Ansgar Koene, University of Nottingham, Horizon Digital Economy Research, Ansgar.koene@nottingham.ac.uk

Andrew Moffat, University of Nottingham, Horizon Center for Doctoral Training, Andrew.moffat@nottingham.ac.uk

Public engagement is a key requirement of funding councils and supported by research-intensive universities as a means to inform the ‘public’ about cutting edge publicly-funded research. The European Commission has identified public engagement as one of the 6 keys of Responsible Research and Innovation (RRI). Increasingly researchers are using social media as a medium for communicating with the ‘public’ in engagement programmes. For example, Universities, research labs, teams and projects are investing increasing amounts of time and effort to develop and maintain blogs, social media pages and a twitter presence in order to communicate the work that is being done and in order to establish a pathway to broadening societal involvement in research.

Who is the ‘public’ in these public engagement initiatives? And how do they respond to messages through these mediums?

A defining feature of social media is that it is based on networks of friends/followers and information is accessed through a ‘pull’ model where the participants semi-select which information they will be exposed to, based on who it is they connect to. This poses a challenge for anyone trying to communicate beyond their existing circle of acquaintances, especially when trying to reach people who are not pre-disposed to searching for the offered information. It is more likely that people seek out information that confirms their existing beliefs than information that challenges them

A sizable body of research has looked at the network structure of on-line social networks and has modeled the information diffusion across such networks. While several of these studies have considered the impact of specific people in these networks who function as information hubs (communication focal points), the affective value of the communicated message is treated as of neutral value to recipients. Experimental/observational studies of social media information spreading have focused on commercial information (i.e. advertisements), political messages and the illusive nature of posts that ‘go viral’. The success of science outreach communication by research groups has received far less attention so far.

In this project we are using Twitter data from a number of volunteers within the University staff. In keeping with our philosophy of citizen centric research ethics, the participants collect their own twitter data, using a tool we provided them with, and are asked to send us their data in weekly installments, with express instruction that they can withdraw participation at any time if they are not comfortable with sending us a particular batch of Twitter data.

The data is being analysed to examine patterns of interaction on the social medium within the University and with external parties. Linguistic analyses will be carried out on the data to look for information dissemination to the wider world through social media channels, and to assess external attitudes to the University and its work.