

Event

According to a study done by the Pew Research Centre in 2010 six in ten (59%) Americans get news from a combination of online and offline sources on a typical day.¹ Online sources are the third major source behind local and national televised news, and the trend toward online news continues. Why does this trend matter in the context of agriculture innovation and to the people working in agri-food research and development? Anti-GM lobbyists have changed their 'modus operandi' and a whole new generation of activism has evolved using online channels that blur the distinction between news and activism. Where once interest groups would demonstrate or, in some extreme cases, resort to vandalizing field trials, interest groups are now rapidly adopting social media as a way to influence public opinion and to disparage modern plant biotechnology and associated practices.

Significance

Poor scientific information, pseudoscience or 'yellow' science involves the portrayal of claims as if they are credible. These claims may be inaccurate, which can be problematic, and a lack of accountability mechanisms means they may go unchallenged. Inaccuracies and falsehoods can persist, or worse, circulate rapidly through interconnected, fast-moving channels of Twitter, Facebook and other social media tools. Activists opposed to agri-food innovation use these tools to get their messages out quickly and into wide circulation. According to Paarlberg and Pray (2008)², these claims "...often gain quick acceptance ...and on occasion they do have direct impacts on government policy....".

Analysis

Given the Internet's capacity to hyperlink across geographic boundaries and the relative low-cost of access to the Web and affiliated tools, it is used as a primary organizing tool for many non-government organizations (activists, civil society organizations, etc.). As more advocacy activities move online, the need for off-line staffing and memberships to support these organizations dwindles. Thus, even the smallest of interest groups can greatly impact public opinion on a subject with a well-executed online campaign strategy. They can quickly build coalitions and mobilize the public around specific issues of interest at relatively low marginal costs.³

A complicating factor is that scientists have been slow in terms of taking up social media as communication tools to respond in the same format. According to Lackes, *et al.* (2009),⁴ very few scientists use social media tools, significantly lagging in adoption rates for both business and personal use. VALGEN researchers conducted a poll of other researchers at the first VALGEN ABC Workshop in January 2010. Of the 28 scientists in the room, only 58.3% stated that they used social media tools and only 36.9% of those used social media for professional purposes (professional networking, recruitment, sharing/accessing knowledge). It seems that very few scientists are equipped to respond to the anti-GM movement in the context of the Internet.

Conclusion

A perfect storm of factors is emerging that, in combination, could spell immediate trouble for agriculture innovation and long-term consequences for food security. The anti-GM agenda is rapidly gaining traction via the Internet through social media tools and fuelled by the influence of 'the celebrity'. This activity, combined with the lack of uptake of social media as a communication tool by scientists and science-advocates, promises to only advance the anti-GM agenda, when society needs balanced messages and open discussion about new science and technology.

¹ Purcell, K., L. Rainie, A. Mitchell, T. Rosenstiel and K. Olmstead. 2010. Understanding the participatory news consumer: how internet and cell phone users have turned news into a social experience. *Pew Research Centre*. Available online at:

http://pewinternet.org/~media/Files/Reports/2010/PIP_Understanding_the_Participatory_News_Consumer.pdf.

² Paarlberg, R. and C. Pray. 2008. Political actors on the landscape. *AgBioForum* Available online at: <http://www.agbioforum.org/v10n3/v10n3a03-paarlberg.htm>

³ Ryan, C.D. 2010. Framing, exploring and understanding online anti-technology advocacy networks. Working Paper. Available online at: <http://doccamiposterous.com/online-anti-technology-advocacy-networks-netw>.

⁴ Lackes, R., M. Siepermann and E. Frank. (2009). Social networks as an approach to the enhancement of collaboration among scientists. *International Journal of Web-based Communities*. Volume 5, Number 4. 577-592.