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Do Social Media Support 'Social' Change? Insights from a Communication for Social Change Perspective in Agriculture and Rural Development

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Abstract

Scholars highlight a necessary transition from 'individual' to 'collective' and 'system-wise' change processes with regard to communication for agricultural and rural development. This is pertinent for enabling multi-stakeholder interactions that mobilize ideas and unleash resources from various sources in the public and private sectors as well as civil society. In an increasingly digital world, communication tools such as social networking media offer a means of triggering community dialogue, collective action and developing solutions to long standing problems in food, agriculture and the environment. The evidence indicates, however, that in its current use, social media does not enable 'dialogues' among agricultural and rural development stakeholders, and influence collective actions. Existing evidence is anecdotal or not yet changing existing agri-food systems. Using a Communication for Social Change (CfSC) perspective, and reflecting on two cases- social media, and 'radio+' (integrated use of radio and digital media) for agricultural and rural development in Canada and internationally, the paper attempts to provide insights on how social media is being mainly used for linear transfer of information, with little effort for dyadic communication. The case of radio+ suggests that there is latent potential for collective learning and participatory action through social media in rural communication. Collective change mediated through new media depends not only on 'access to tools' but on 'users' who express themselves and listen to others. Ultimately, the paper raises questions on the role of social media in social change – particularly for engaging communities, creating opportunities for communication and mobilizing resources.

Keywords

Social media; Communication for Social Change (CfSC); Radio+; agriculture; rural development

1. Introduction

Food is a basic human need. Farms and rural environments in Canada and around the world support a vast array of economic development, cultures and social well-being. How can agriculture and rural development be supported more effectively using new communication media? This is a recurrent question faced by communication for development scholars who are often engaged in approaches and arguments that revolve around two broader perspectives- 'behavioural change communication' and 'communication as means to social change'. In the 21st century, alternative discourses in communication for development have emerged through extensive work with agricultural and rural communities in low-income and disadvantaged regions (Manyozo, 2012). Communication for Social Change (CfSC) evolved in critical response to behavioural change communication approaches that concentrated on one-way message transfers (Gumucio-Dagron and Tufte, 2006). This critique challenges information dissemination and top-down, social marketing campaigns typical of behavioural change models (Manyozo, 2012). These linear models have been found to amplify socio-economic disparities within communities, both in the developed or high income nations (Leeuwis *et al.*, 2006; Klerkx, 2008) and in low-income nations (Woodhill, 2002; Röling, 2009; Pant & Hambly Odame, 2010). While possibly effective in the agri-food and rural context where there is an immediate environmental crisis or public or animal health situation, behavioural change communication is 'information' intense, and not likely to be conducive to 'knowledge sharing' agri-food and rural related discussions or learning.

Issues related to food, agriculture and rural environment (e.g. climate change, sustainability of food production and consumption, markets and value chains) are too complex for linear approaches to communication and use of media. The consolidation of local, indigenous and formal scientific knowledge, and establishing effective and trustworthy partnerships among broad stakeholder groups are required (Hall, 2005; IAASTD, 2009). Thus, communication as a means for social change in the context of agricultural and rural development emphasizes facilitating and learning from the knowledge of multiple stakeholders in order to explore ideas and mobilize public and private resources for activating innovation and addressing key challenges including environmental sustainability and social equity (Leeuwis & Van den Ban, 2004; World Bank, 2012).

CfSC emphasizes moving beyond influencing individuals to allow collective changes through iterative processes of 'community dialogue' and 'collective action' (Gumucio-Dagron & Tufte, 2006). The CfSC approach recognizes participatory approaches that operationalize the notion of dialogue as central to local appropriation of knowledge (Rockefeller Foundation, 1999; Gumucio-Dagron, 2001). It pays attention to the wider selection process and organization of information as well as how various media such as radio, theatre, video or community discussions can facilitate ongoing policy and structural changes. CfSC stresses that effective communication is neither contingent upon the quality of the channel nor that of the message. Rather, communication is

a social action that takes place through interaction (e.g. everyday or interpersonal) and construction of 'maps of meaning' by the communicating parties in relation to their contextual characteristics and namely, their past experience of relationships and interests (Bandura, 1977; Leeuwis & Aarts, 2011). The approach stresses a strategic use of communication media that engages stakeholders (e.g. researchers, development professionals, policy makers, and clients in private and public dialogue) in negotiated development as an empowering process (Waisbord, 2001; Gumucio-Dagron & Tufte, 2006).

Increasingly, digital communication tools broadly referred to as Web 2.0 technologies, and in particular, social media such as Facebook, Twitter, blogs and webinars are viewed as means of triggering community dialogue leading to collective action, possible social movements and solutions for longstanding development problems (Ashley *et al.*, 2009; Smith, 2010; Castells, 2012). Of course, in some contexts the new digital tools do not necessarily replace but rather, supplement existing media. This is the case, as explored further in this paper of social media combined with radio, referred to as "radio plus or radio+" which offer audiences active, not passive opportunities for engagement with radio (Balit, 2012; O'Donnells, 2011; Hambly Odame, 2012).

How can communication for development scholars and practitioners be certain that social media facilitates group learning processes that mobilise rural social structures and resources? The role of social media in social change depends not on technological merits (e.g. access to the hardware or software of new media *per se*), but on the attitude, interest and skills of those who use media as a means for social change (Lemish and Caringer, 2012). The CfSC perspective demands participatory and dyadic communication which are usually time and labour intensive processes. Notably, social networking media is expected to compress time and space while communicating between one-to-one, one-to-many, and many-to-many. How do users of social media ensure the quality time and effort needed for community dialogues and actions? While the role of social media in processes of social and political movements is increasingly evident (Castells, 2012), the extant knowledge about their role in initiating 'dialogue' among grass roots rural communities (e.g. agriculture, foods, natural resource user), is anecdotal or largely absent. Are various grassroots agriculture and rural development stakeholders such as, agri-food producers, rural entrepreneurs, scientists, community-level volunteers, and public servants using social media to create socially-distributed meanings, definitions or understanding among them? The paper draws on principles of CfSC and two cases of social media practices in agri-food and rural sectors to discuss these questions.

2. Social Media for Networking and Engagement of Stakeholders in Development

We have chosen to examine this topic in light of two different cases of social media: one involves agri-food stakeholder engagement through Internet-enabled social media in Ontario, Canada and the other involves

the integrated use of social media and radio broadcasting in rural areas of low-income countries, mainly in Asia and Africa. Comparisons between these two distinct contexts are useful for understanding the opportunities and challenges associated with social media for agricultural and rural development. Both cases share the need for information and knowledge and communication for engaging in dialogues and network building. They vary greatly in how social media is accessed and used.

2.1. Case 1: social media in agri-food and rural development in Ontario

Although social media has been established as a distinct topic of information and communication studies in different sectors (e.g. banking, commercial, health, and tourism), it is still in an early stage of development in the agricultural and rural development sectors. Very recently, scholars started to think more critically about social media as tools and processes to diversify mostly one-way dissemination of agricultural and rural information (Chowdhury and Hambly, forthcoming). This implies the use of a range of new media and communication technologies (e.g. social media) and its convergence with broadcast media such as radio, television or print to support interactions that co-produce knowledge and build networks of innovating people, institutions and systems. Dozens of Internet applications and services, generally referred to as Web 2.0 technologies, are already used or emerging in Canada's agri-food and rural sectors. In 2012-13, we used advanced search engines to develop an inventory of various social media used by individuals and organizations involved in agri-food innovation in Ontario. Considering their relevance, a content analysis was employed on 50 social media platforms (Facebook, Twitter and blogs) used by the Canadian agri-food and rural development stakeholders. Methods and results of the study have been discussed in more detail in Chowdhury and Hambly (forthcoming). In this paper, we report key findings of the study.

2.2. Case 2: Radio+

Radio's convergence with emerging information and communication technologies (radio+) is widely discussed in the development literature, but few empirical studies have been accomplished. Since the late 1990s, we have examined various cases of radio+ around the world. The first generation of emergent technologies used by rural radio stations were radio podcasting (archived digital broadcasts, internet radio browsing) and radio broadcasting that involved 'call in' by mobile phone texting (SMS) (Girard, 2003; Sullivan, 2011). The second generation use of more diverse digital technologies and social media platforms (Facebook, Twitter and blogs) in combination with radio broadcasting are discussed below in this paper.

3. Practice of Social Media by the Agri-food and Rural Stakeholders in Ontario

The findings of our inventory study (Chowdhury and Helen Hambly, forthcoming) indicate that social media as a communication strategy has emerged very recently in Ontario agri-food and rural development sectors. Stakeholders really only started to use social media in the last five years (since 2008). There is a dramatic rise of social media use since 2012. Most social media cases have only been functioning for the last 12 to 24 months. Individual users who are producers, retailers and family-based farms are dominant users of the media, followed by stakeholders of research and education, non-profit organizations, consultants, community activists and journalists. Government agencies were comparatively slow in adopting and participating actively in agri-food and rural social media platforms. Recently major government programs and media campaigns started to disseminate information via social media.

Sustainable agricultural practices and agricultural policy issues are the most widely discussed topics in social media, followed by topics of agri-food industry and market sales. Stakeholders are evidently using social media to fulfill various development related goals. They use social networking tools for social marketing campaigns, community engagement, and enhancing outreach of business and science. The use of social media for enhancing business, fundraising and economic transactions in agriculture and rural sectors, however, is at an early stage of development.

Twitter is currently the most widely used social media tool in the inventory. Nonetheless, there are few Twitter accounts which daily engage a large audience by tweeting, or actively following others and being followed by others. The majority of accounts have not reached an audience of more than 50-100 followers. Typically, Twitter accounts were introduced more recently (within the past 12 months), and had intermittent activities in their accounts within this time period. Low audience engagement is apparent and can be attributed to the inability of users to adopt effective strategies of audience engagement such as, choosing potential followers, being followed by others and posting relevant and effective messages. On average, Twitter accounts performed more tweeting than re-tweeting and replying to posts. Tweeting a message or link is a means of exchanging knowledge and information. Re-tweeting and replying to the tweeted posts indicate expressions of intentional communication typically in the form of an offered insight, example or a shared meaning or perception of the communicating parties.

Next to Twitter, agri-food and rural issues social media users favour Facebook and blogs. There is a tendency, however, to use the tools for sharing information and endorsing messages using the 'like' (or similar) endorsement buttons. This indicates user behaviour for instant and prompt ways to respond to a post, although it does not provide sufficient insight into users' interactional communication behaviour on a specific

issue. The accounts that post comments and resend additional comments to one another suggest greater interaction. The frequency and tendency for such activity is apparently low among the overall range of cases. Instead, it is more typical that users focus on sharing or dissemination of information in all three social media platforms. More often users do not completely disclose their 'identity' or create an 'avatar' for their participation in social media. While Twitter and Facebook functions to some extent in creating relationships and building the user's reputation, people use blogs mainly for enhancing individual or organizational reputation. Facebook enables some conversations. But, Twitter and blogs do not initiate conversations among users.

Social media use in agri-food and rural development related contexts in Ontario favour text and image. Video and audio are the least preferred forms of communication. This is possibly indicative of Internet access and capacity challenges that stakeholders encounter in the development and use of video and audio, including exchange of such material through different social media sites. Social media tools such as wikis, Facebook, blogs and YouTube require high download and upload speeds. In comparison to other users in urban and peri-urban areas of the Province, rural Ontario is disproportionately affected by the lack of synchronous digital connectivity (Dixon, 2012).

The findings corroborate earlier observations made by Greenberg & MacAulay (2009) that most Canadian Environmental Non-profit Organizations (ENPO) do not leverage social media for dialogical forms of communication such as, constituency engagement, relationship building and conversations. The findings of our study and that of Greenberg & MacAulay (2009) identify existing tensions between instrumental and dialogical forms of communication. The findings are also in line with Guiry & Hilderley (2012) who conducted a comprehensive survey with 439 agricultural professionals in Ontario to understand their social media use. Their study revealed Twitter as the most often used tool followed by YouTube, Facebook and blogs. The majority of agricultural professionals (68%) use social media for sharing and/or capturing knowledge and information in order to fulfill their agricultural roles and duties.

Our findings raise questions about the role of social networking sites in building trust relationships, and reducing multiple layers of bureaucracy in problem solving relationships that contribute to direct "hands on" benefits such as adaptation of productive technologies, enhanced peer-to-peer knowledge flows or improved financial or time-saving transactions in rural areas (Staiger-Rivas *et al.*, 2010; Gajjala *et al.*, 2011). In addition to the constraints that may be explained by technological, access and capacity challenges, we suggest that some users may be skeptical about the use of social media due to concerns related to risk, credibility and benefits associated with time and other resources spent on developing Web 2.0 media.

Analysis of social media behaviour of people living in remote and rural areas provide valuable insights into the potential use of media for social change. For instance, research indicates that rural people in America keep their networks nearby, and use the social media for replicating off-

line friendships (Gilbert, Karhalios & Sandvig, 2010). There are several plausible explanations of this social media behaviour: less geographical mobility of rural people, rural people's necessity of deep interpersonal knowledge before making friendship, limited access to technology (e.g. broadband connections) and their tendency to follow incremental trust building process (e.g. gradually sharing more personal information online). In Ontario, our preliminary results indicate that social media use for agri-food and rural development is recent, with many stakeholders slowly or sporadically emerging in their online presence and not yet at a point where they are using social media to engage actively in dialogue and collective action.

4. Radio+: An Approach of Converging Social Media and Radio to Support Communication for Rural Development

The study of radio for agricultural and rural knowledge mobilization in low income years has been an ongoing effort by the second author for more than a decade (Hambly & Kasam, 2002). From existing inventories and reviews of rural radio in Africa and Asia, three specific examples were chosen to illustrate the trend and characteristics of radio+ and to examine how social media when converged with broadcast media such as radio, enables information and knowledge sharing as well as community engagement.

The first example is that of Mobile Vaani, in Jharkhand, India, operating a low-cost radio platform that automates many interactions with listeners. The technology was developed by Gram Vanni (meaning 'voice of the village'), a social use technology company of the Indian Institute of Technology. The platform enables radio station operators to schedule broadcasts, preview programs, make and receive phone calls, record live transmissions, stream over the internet, view station analytics, and maintain a searchable library (USAID, 2012). As well, the major advantages of such a platform is the use of metadata and search mechanisms to organize radio content for later use or sharing with partner stations, including those in other regions of India, or even in other countries. The key challenge is the sustained used of the platform, beyond special projects, as a study by Koradia, *et al.* (2010) found that the radio stations can be resistant to changing existing practices that in the long term sustain audience engagement.

Similarly, FrontlineSMS:Radio is a free, open source software run by radio stations on laptops, mobile phones, or a GSM modem to manage SMS with their audience. Radio stations such as the example of Star FM in Bulawayo, Zimbabwe, can send and receive text messages to alert listeners, receive and synthesize feedback, survey listener interest in broadcast topics and conduct audience research. In the example of Star FM, its Facebook posts document how the technologies have engaged rural youth in communication of social issues covered in the broadcasts, mobilizing efforts aimed to address problems such as youth unemployment and violence in the community.

The example of African Farm Radio Research Initiative (AFRRI), an initiative of Farm Radio International has shown that participatory radio campaigns are encouraging greater listener involvement in programming design and deliver. As well, radio stations used SMS alerts to remind listeners of upcoming programming boosting radio listenership by up to 20% (Sullivan, 2011). Audience members who subscribed to radio stations' SMS service were sent messages 30 minutes prior to a broadcast and also asked to pass the message along to their farm neighbours, further increasing listenership by word of mouth. In this example, users became more aware of and comfortable with using the SMS features of their phone as a result of the SMS broadcasts, and that receiving SMS broadcasts increased listenership loyalty. Web 2.0 enabled technologies for participatory radio campaigns in rural Africa are still in their early stage of monitoring and evaluation.

In these three examples the media convergence between radio and social media (or first generation SMS use in radio) suggests technological challenges. Time and commitment to collect listeners' phone numbers and offer services in local languages to non-literate users have been cited. New media also relies on inputs such as batteries and electricity for charging mobile devices, network reliability and signal strength. Within radio stations computer software and hardware resources are often strained and updates and training are needed. As indicated, outside special project funding there is a lack of affordable internet access or donated or subsidized bulk credit for SMS broadcasting from service providers.

The observed social challenges of social media use for agri-food and rural areas in low income countries is reminiscent of past work by radio activist Bruce Girard (2003) who differentiated the concept of 'interactive social communication' from 'interactivity'. In the context of radio, the latter refers to the ability of listeners to interact with broadcasters, often through the use of call in programs, letters, and open microphone shows, and now through emails, texting, tweeting, Facebook posts and blogging. This is certainly evident in the cases and suggests that new media can enable rural dialogue and collective action. As Girard argues, radio's great strength is in stimulating 'interactive social communication' within a community. This is the potential of radio+, by raising awareness around an issue, such as the examples of Star FM and AFRRI suggest to stimulate interactive communication among members of the community separate from the radio broadcast or media intervention. It is ultimately the local talking and action that will lead to sharing meanings, building common understanding of problems and proposing action for resolving problems.

5. Discussion and Conclusion

In this paper, it is revealed that the current use of social media in agri-food and rural development often lends a greater emphasis on disseminating information and transferring messages as compared to engaging users in dialogue, reflective and problem-solving discussions for agricultural and rural development. From the ideas and experience of

CfSC perspectives we know that many initiatives fail to support stakeholder dialogue due to a lack of conducive attitudes towards participation and attention to the considerable time and effort needed to engage communities in collective action. For instance, there is a tendency among various social media users in agri-food and rural development in Ontario to adopt one-way information dissemination instead of initiating and engaging in dialogue, is indicative of how difficult it is to change established patterns of communication.

Internationally, and specifically in low income countries, the experience of radio+ suggests that social media use, converged with rural radio can enable community engagement, dialogues and potentially, collective action. Nonetheless, a major question that still needs to be addressed going forward is how radio+ will be able to move from simple interaction with new digital technologies and social media to go beyond connecting individual listeners to the radio station towards a more interactive process of social communication that will stimulate and sustain social change.

More empirical evidence is needed to understand how social media users in rural areas or involved with agri-food and rural issues in both high and low income contexts accommodate necessary time and effort for supporting effective community dialogue through social media. The findings of the study imply that 'access to new technology' does not ensure renegotiated power relations within communication processes that would enable a wider civic engagement and social change. Ultimately, more work is needed to analyze critically and enable attitudes, skills and capabilities among stakeholders of agri-food and rural development in Canada and around the world who just beginning to use new media for advancing their economic, socio-cultural and environmental well-being.

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