Building our Community of Practice: Utilizing the new tools of Social Media in Relation to Hazard Communication: Is MySpace Really Our Space? Max Lum Ed.D. MPA. Director, Office of Health Communication and Global Collaboration. National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention, USA.

Introduction

There is a new urgency in government, which is mirrored by many professional organizations and institutions, to accelerate and transform public and private sector services and strategies. Policy changes from the highest level of government in the United States are placing increased demands for improving transparency and citizen involvement.

Social media, often referred to as Web 2.0, offers a wide range of tools that potentially can work to build and strengthened an occupational health and safety community of practice and reach and involve other networks of individuals and groups who share or might share our interests. We live in a networked world. Diplomacy is networked. Business is networked; every management manual published in the past decade seems to focus on shifting from a vertical world of hierarchy to the horizontal world of networks. Media is networked; online blogs and contributions to Wikipedia depend on networked conversations in the public space. Some consider blogs the new newspapers. Society is certainly networked; the world of MySpace, Facebook, YouTube, Wikipedia and Twitter are creating a global world of "Our Space" linking hundreds of millions of individuals in cyberspace.

But is MySpace really our space? How will knowledge development be protected from the corruption and whims of networking in a public space environment and is this the price that must be paid in order to achieve a higher level of awareness? It's not simply a change in form but a change in culture. Hierarchy and control are critical in science and a peer-reviewed culture but in a networked world control loses out to community, collaboration and self-organization. New knowledge development begins with conversations.

Many of the significant challenges we face in occupational health require that workers and employers have the information they need to make healthful decisions to change behaviors. Barriers to behavior change are well known and these compound our challenges even more. Based on extensive social science research over the last few decades we know that people make decisions about health within the context of the social and cultural environment in which they live and work. If employers are unaware or cannot find suitable information concerning a given hazard and are unable to deliver it in trusted environment their employees may not be able to be aware of and exhibit safe behaviors. Additionally, if employees are presented useful information through a socially unacceptable network they may not be inclined to adopt safe and healthy behaviors.

The implementation of social media strategies is one important consideration that should be a part of any comprehensive risk communication strategy. Social media identifies multiple levels of influence (interpersonal, intrapersonal, norm based, environmental, and most importantly institutional) and employs a variety of disciplines and tools in an effort to understand and tap into important decision making networks.

Being In Sync with Our Employees and Customers

The way many communicators dispense information may be out of sync with the way consumers use media according to "Media Myths and Realities," a comprehensive survey of media usage among consumers and communications professionals (Media, Myths and Realities, 2008). The study reports that advice from family and friends still remains the number one source that consumers turn to when making a variety of decisions ranging from purchasing consumer electronics to planning a vacation---and advice from an expert rates highest when making medical decisions and purchases based on a products utility.

Despite the strong evidence that friends, family and experts play a key role in influencing decisions, only 24 percent of communication professionals report having a word of mouth program in place. Another indication of this communication gap is the differing reliance on company websites. Communicators rank their companies own websites as the most effective way to share corporate news or issue a response to a crisis, but consumers rank company websites sixth and seventh among places they turn to for corporate news and crisis response, respectively. A recent study indicates that 93 percent of social media users believe a company should have a presence in social media and approximately 85 percent of social media users believe that a company should go further than just a presence on social sites and should interact with its customers (Cone, 2008).

Risk communicators should view today's worker and employer audience as a conversation not just a message. With digital media giving rise to increasing media choice, fragmentation and personal empowerment, the term mass market hazard communication is outmoded.

As a result, it is imperative that communicators view their audience as distinct groupings of individuals and meet risk communication needs to meet consumer searching and action behavior in a multi-media channel world. Clearly, today more than ever each consumer can search out the specific information he or she is seeking while tuning out the media sources that aren't personally relevant or meaningful. Risk communicators must focus on speaking to individuals, not just broadcasting to the masses when getting their message across the new networked public.

Media preferences are more personalized than ever. The "Media Myths and Realities" study reveals that 22 percent of US consumers use social networking sites up from 17 percent in 2007 and 19 percent of consumers use blogs, up from 13 percent. Among US consumers over 55 the use of blogs and social networking sites more than doubled. In 2009, it is estimated that 3 out of 4 Americans use social technology and about 66% of the global internet population visits social networks (Nielsen). Globally, time spent on social networks is growing at 3 times the overall Iternet rate accounting for 10% of all internet time. At the same time use of most other media outlets is slipping.

Search engines continue to be a gateway to consumer choice in information, with 60% of US consumers using them to find and select the news and other information they want to receive. Trends in EU countries are similar. The trend toward more personalized media is even stronger among "influencers" -the 10 to 15 percent of the population who initiate changes in their organizations or community through a variety of activities- with 35 percent using both social networking sites and blogs and 72 percent using search engines (Media Myths and Realities, 2008).

If networking with our target audience is really to be a conversation we must treat audiences as communities of customers not just faceless masses in digital space. Rather than rely on the reputation of a newspaper or visual media outlet to carry our message, we need to relate to the public directly by creating content that is relevant, evidenced based, impactful, engaging, and motivates our audiences to share information with like minded people and to take action. Safety experts, researchers and health providers have a special duty to help provide evidence based context, rather than just basic content, and provide the quality and independence that more and more customers are demanding.

A private or public website should not be the only choice for communicating to our audiences. While websites provides us a comforting measure of control over the message, and serve an important archival function in today's media environment they appear almost quaint and out of touch with the way consumers are searching for information. Risk communicators need to stay on top of the latest research and avoid becoming reliant on any single communication technique regardless of how new or exciting it may seem and we should always be alert to measurement in terms of outcomes and impacts.

Social media is increasingly recognized as a useful tool in prevention. However, the process of crafting social media tools that are appropriate for employees and employers is often done by hiring consultants or engaging in a lengthy focus group based process. These options tend to be expensive and time consuming and may not significantly engage the target community in sustainable prevention efforts that harness the power of social networks.

Network Communications are Powerful

In 2003 academicians Nicholas Christakis, and James Fowler began searching through the personal records of those involved in the original Framingham Heart Study. Pouring through the meticulous records categorized from 1948 to the present the researchers mapped out the relationship of 12,067 people with more than 50,000 ties (connections between friends and relatives) among them. Analyzing the network, the authors noticed that obese people tend to be friends with other obese people, while thin people tend to be friends with other thin people. On one level, this is obvious and unsurprising; birds of a feather and all that. But based on their reading of the data (which other researchers have questioned), the authors concluded that the relationship was causal: being associated with overweight people, even indirectly, is likely to make you overweight. As Christakis and Fowler (along with other researchers) have found, obesity spreads by contagion. So if your friend's friend's friend — whom you've never met, and lives a thousand miles away — gains weight, you're likely to gain weight, too. And if your friend's friend's friend loses weight, you're likely to lose weight, too. Christakis and Fowler explore network contagion in everything from back pain (higher incidence spread from West Germany to East Germany after the fall of the Berlin Wall) to suicide (well known to spread throughout communities on occasion) to sex practices (such as the growing prevalence of oral sex among teenagers) to politics (where the denser your network of connections, the more ideologically intense and intractable your beliefs are likely to be). (Christakas and Fowler, 2009)

How does network contagion work? What is the mechanism whereby your friend's friend's obesity is likely to make you fatter? Partly, it's a kind of peer pressure, or norming effect, in which certain behaviors, or the social acceptance of certain behaviors, get transmitted across a network of acquaintances. Christakis and Fowler argue that through network science we are discovering the same principle at work in humans — as individuals, we are part of a larger network or community of interest that shapes our world view and provides a springboard and support for action

Examples from the NIOSH Social Media Portfolio

The NIOSH Science Blog.

Every day, millions of online diarists, or bloggers share their opinions with a global audience. Drawing upon the content of the international media and the World Wide Web, they weave together an elaborate network with agenda setting power on issues ranging from human rights in China and emergency response needs in Haiti to sharing soup recipes and highlighting health information.

NIOSH established its science blog in 2007, the first external science blog created within the Centers for Disease Control and Prevention. The NIOSH blog is updated twice a month and provides online commentary on a workplace related safety and health research with minimal or no editing of externally received comments. The over 250 visitors per day are encouraged to leave comments. The number of visitors to the site has grown steadily since its inception. NIOSH blog posts always encourage transparency and include hyperlinks to other sources enabling commentators to draw upon the content of information on the main NIOSH website. It provides users with access to credible, science-based health information when, where, and in the detail they want it. www.cdc.gov/niosh/blog/

Social Networking Sites

Social networking sites are online communities where people can interact with friends, family, co-workers, acquaintances and others with similar interests. Most social networking sites are Web-based and provide many ways for their users to interact, such as chat, messaging, email, video, file-sharing, blogging and discussion groups.

Facebook

In February 2004 Mark Zuckerberg a Harvard student launched "The facebook", as it was originally known. Within 24 hours, 1,200 Harvard students had signed up, and after one month, over half of the undergraduate population had a profile. The network was eventually extended to all US universities. As of September 2006, the network was extended beyond educational institutions to anyone with a registered email address. Facebook is the most popular social networking site in the United States and most of Europe with Germany being the notable exception.

Global estimates of time per day spent on the site are over 5 Billion minutes. Surprisingly the 50+ age group is the fastest growing demographic followed by the 41-45 age group. NIOSH has over 1,500 fans on its Facebook page which it uses primarily to connect with individuals and organizations to receive and disseminate information. www.facebook.com/niosh

MySpace

Myspace began as a for-profit venture in 2003, bolstered by generous startup money. Most of the users of the site are in their teens and early 20s, making it a very attractive market for reaching young workers and managers. It is estimated that 60 percent of MySpace members are under than 25. NIOSH uses its MySpace page (www.myspace.com/**niosh)** to keep users informed about current NIOSH research and activities. In addition, NIOSH felt a need to reach out and network with younger mostly volunteer fire fighters. After some focused audience research it chose MySpace. Currently NIOSH has over 600 friends on its Fire Fighter Fatality Prevention and Investigation Program page(www.myspace.com/firefightersfirst). The average size of a Myspace site is approximately 100 friends.

Twitter

Since its creation in 2006 Twitter has gained notability and popularity worldwide. Twitter is sometimes referred to as a mini blog with a mix between email and chat, where one gets the benefits of connecting with groups as well as individuals. NIOSH uses its Twitter site to send and receive messages known as *tweets*. Tweets are text-based posts of up to 140 characters displayed on the NIOSH's profile page and delivered to subscribers who are known as *followers.*

NIOSH works to deliver the freshest and most relevant occupational safety and health information possible often several times a day. We do not think of Twitter as a social network, but as a key information network. It tells our followers what they want to know in real time and provides them a venue to send us direct messages in return. One of the major benefits of Twitter is the re-tweet function, where a follower of NIOSH essentially tweets our twitter post on to their own followers. The power of this re-posting of information cannot be underestimated. About 20 percent of our followers re-tweet NIOSH information on a regular basis. When NIOSH had only 2,500 followers the re-tweeted exposure during a 7 month period allowed us to reach a sum total of over 400,000 followers. NIOSH launched its Twitter site in May, 2009 with 451 followers joining within that month. As of January, 2010 NIOSH had over 60,000 followers and had been positively

recognized by Twitter as well as our customers. Because of its direct message option Twitter provides a mechanism for directly reaching the Institute complimenting the current toll free call-in function. Follow NIOSH @ www.twitter.com/niosh

Flickr

Flicker is an online photo management and sharing application. Through Flickr, NIOSH has posted workplace-related photos available free of charge to anyone who wants them. As with many social media tools sharing photos are a powerful way to engage stakeholders and get visual messages out to the public. In 2009, Flickr had 36 million members with over 75 million monthly unique visitors. NIOSH encourages Flickr visitors to use our photos for print media needs, academic lectures, training seminars, and document development. www.flickr.com/niosh

Wikipedia

Wikipedia is a multilingual, web-based, free-content encyclopedia based on an openly-editable model. Wikipedia is written collaboratively by an international group of volunteers. Anyone with Internet access can write and make changes to Wikipedia articles. Since 2008 NIOSH has created over 600 pages or edited existing Wikipedia sites. Visits to Wikipedia account for about 10,000 additional visits to the NIOSH Web Site per month. In addition, the overall exposure and long tail reach of Wikipedia is much greater than the NIOSH website and exposes narrowly defined content to readers..

YouTube

YouTube provides a forum for users to watch and share original videos worldwide on the Web. NIOSH has just begun to post safety and health related videos on YouTube which provides tremendous opportunity for distributing video content for training and educational purposes to customers that may not know about the NIOSH mission or its Web presence. A feature called YouTube Insight give the YouTube account holders who have uploaded videos to the site a range of statistics, charts and maps about their audiences. What's very distinctive about YouTube Insight is the immediacy of the information and the discovery element, for example how viewers found the content. It has the potential of becoming a large online focus group.

E-Cards

Electronic greeting cards, or e-Cards, are communication tools used to encourage healthy behavior by communicating programs, products, and information to individuals. E-Cards are an effective and inexpensive way to reach individuals with personalized and targeted health information by allowing users to send a personal message as well as health messages to their friends and family. NIOSH used e-Cards to commemorate Workers Memorial Day and to help communicate safe work practices in the body art industry.

Podcasts
A podcast is a digital audio or video file that can be saved for playback on a portable media player or computer. NIOSH has created podcasts on a variety of topics including respirator guidelines for H1N1, seat belt use among fire fighters, workplace stress, and safety and health issues for women.

Conclusion

The ultimate goal for the risk communicator is to create insight which can lead to impactful action. If we ignore the tools of social media in the pursuit of this goal we are ignoring the reality of the powers of social networks and their ability to effect action. A generation of citizens that have grown up immersed in these concepts and technologies are entering into the workforce and placing an imperative on change. It's important for all of us concerned with workplace and safety

to network together to explore the advantages and options of how the tools of social media can transform risk communication for the better.

Social media provides an infrastructure that allows us to develop new ways of looking at communication challenges and to re-frame established strategies and techniques with ease. We can make connections and relationships at a pace never before imagined. We need to do it together. We need to do it in a public way and we need to measure the results.

Every hyperlink and every playlist has the potential to enrich our shared understanding, creating potential connections that we don't often anticipate. Each connection tells us something about who we are connecting with, about the culture involved in that connection, and about the sorts of people who find that connection without being prompted. The public construction of meaning within a network of evidence based communities is a challenge. For us to be effective we must accept that networks are not directed and controlled as much as they are managed and orchestrated. Good management on the part of the occupational safety and health community assures contributors are integrated into a whole greater than the sum of its parts-an orchestra that plays independently but most importantly according to the trust and vision of its conductor.

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