

NATIONAL CENTER FOR
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Advancing the Robust Case Study II
A Summary of five Crisis Communication Case Studies Involving
Food Events from 2010-2014

University of Kentucky

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Introduction

The case studies summarized below represent five incidents in the food industry that provide a learning opportunity for practitioners and communicators in the industry. Each case will be summarized, the research method applied will be described, and conclusions and lessons learned from each case will be discussed. The goal is that those charged with communicating to stakeholder groups during a food related crisis will learn how to do so more effectively, ultimately mitigating harm and minimizing the damage done by the event. As the ultimate goal of the NCFPD is to defend the food system at all levels and phases, this research also aims to reduce the potential for accidental contamination and attack through intentional contamination.

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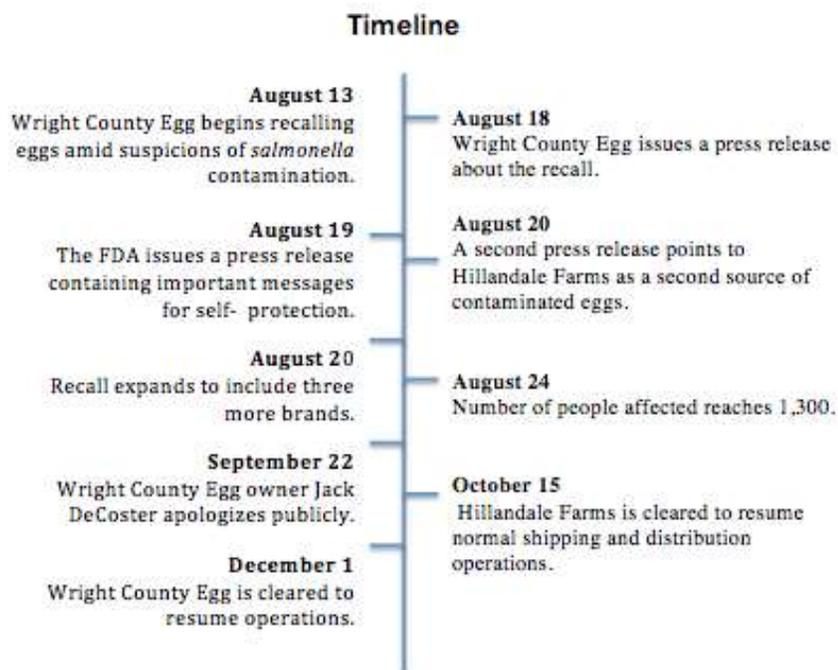
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Salmonella Egg Contamination

Case summary

Hillandale Farms and Wright County Egg found themselves in the midst of an organizational crisis when both were identified as the sources of *Salmonella*-contaminated eggs causing a food-borne illness outbreak across 16 states. As the recall grew, these organizations were conspicuously absent from the dialogue surrounding the event. Instead, the organizations allowed others, including the U.S. Department of Agriculture, the Food and Drug Administration (FDA), and various news reporters and television news anchors, to speak in their place. Unfortunately, these proxy communicators left much to be desired in the way of satisfying significant choice requirements and meeting the audience's health literacy needs.



Key Messages for Self Protection

1. Wash hands and cooking surfaces that come in to contact with raw eggs thoroughly.
2. Cook eggs thoroughly until the yolks are no longer runny.
3. Check egg cartons for recall information and Julian dates to ensure they are not part of the recall.

Salmonella Egg Contamination

Method

This case study focuses on the televised coverage of the crisis from August 13 to August 27, 2010. This time period was selected because it represents the onset of the egg recall, which was deemed the acute phase of this crisis. To complete the media content analysis, the researchers used the television tracking system housed in a southeastern U.S. university. Stations included in the study were CNN, CNNH, CSPAN, CW, CBS, Fox, FNC, NBC, ABC, PBS, and MSNBC. The keywords selected for this event were egg and *Salmonella*. If either of these words or combinations of words was found in a television segment, the segment was isolated and captured for further analysis. A total of 566 videos containing news about the recall were recorded and coded.

Results

Only 3% of the videos ($n = 17$) included instructions to wash hands and cooking surfaces thoroughly after handling and cooking eggs. The second key message of self-protection involved cooking eggs thoroughly until the yolk was no longer runny. This message appeared in 19

percent of the broadcasts ($n = 108$), which is the highest frequency of all three messages. Because cooking eggs to a high temperature has the potential to kill any strains of *Salmonella*, it is perhaps the most important message. Ideally, this message would appear with far more regularity. The third message involved instructions on how to check for recall information in egg cartons that consumers might have in their homes. This included checking for brand names, plant numbers, and Julian dates. The results indicate that only 9% ($n = 51$) of broadcasts included plant numbers, Julian dates, or both, which would help consumers determine if their eggs were part of the recall.



Lessons Learned

By their nature, crises create a need for information enabling potential victims to protect themselves. Naturally, any intentional effort to withhold such information in an effort to protect oneself or one's organization from criticism and litigation is unethical. This study suggests further that failing to account for the varying degrees of health literacy among the population is an ethical violation as well. As such, clear and open communication cannot be considered only from the perspective of the party sending the message, be it a large organization or a single practitioner. Rather, careful consideration of the audience's (or the patient's) ability to comprehend and act on the information is equally important.

Case Summary

On March 7, 2012 Diane Sawyer, America’s ABC News anchor, reported on a product she called “pink slime” claiming the product was “diluting” ground beef. “Pink slime” is actually Lean Finely Textured Beef (LFTB), produced by Beef Products, Incorporated (BPI), and has been successfully incorporated in food production for the past two decades. BPI supplies food production ingredients to other companies, with little to no public interaction. Due to the lack of public interaction, or public relations activities, BPI was ill prepared to speak in defense of itself or its’ product. In response to the crisis, the American Meat Industry spoke on behalf of BPI and LFTB to clarify both how the product was made and the safety of the product. The response did little to ease public concern.

On April 6, 2012, one month after the initial “pink slime” broadcast, Joel L. Greene, an agricultural policy analysis, documented the decline in LFTB noting that several large grocery chains announced they would no longer sell ground beef that included LFTB. The United States Department of Agriculture (USDA) announced that it would allow school districts to choose whether or not to purchase ground beef supplemented with LFTB. The policy changes resulted in serious damage to BPI and the beef industry. BPI shut down operations at three of its four manufacturing plants, resulting in the loss of 650 jobs. These changes lead to increases in the cost of lean ground beef and consumption of beef with higher fat content. The USDA also forecasted an increase in beef imports from other countries, increasing competition for U.S. American ranchers and beef processors.

Research Questions

RQ1: To what extent does the order of receiving news stories affect public opinion of:

- a) Severity of “pink slime?”
- b) Long term health effects of pink slime?
- c) Change in behavioral intentions?

53.3% female and ranged in age from 18-69. The sample was predominantly Caucasian.

Procedure

Participants were randomly assigned to one of three experimental conditions. These conditions were designed to experimentally replicate and extend the circumstances surrounding the ABC news report and BPI. In the first condition, the participants read a USA Today story outlining how ground beef at supermarkets contained Pink Slime (LFTB) and explaining the process involved with making Pink Slime. The USA Today story was written with several exemplars. After reading the article, participants were sent to a questionnaire online that consisted of questions designed to measure severity, likelihood and behavioral intentions. The

Method

Participants

The sample included 331 participants collected from several sources. Participants were recruited from two separate universities, through Facebook posts, and through online research pools across the country. The total sample was

Lean Fine Textured Beef “Pink Slime”

second condition had participants first read the USA Today story with exemplars concerning Pink Slime, and then read a United States Department of Agriculture (USDA blog post) on how Pink Slime was made. The blog post highlighted the safety of LFTB and explained the exemplars in the USA Today story (but did not refer to the USA Today story), in addition to refuting some of the myths about LFTB. In the third condition participants first read the USDA blog post, followed by the USA Today story.

Measures

After reading the materials in one of the three conditions, participants were asked to fill out a questionnaire evaluating their responses. To assess respondent's perceptions of severity a 7-point Likert type question asked, “How big of a health issue is lean finely textured beef (pink slime) in your opinion?” A similar question asked respondents “How severe is the potential long term health outcomes associated with lean finely

textured beef (pink slime)? To examine the likelihood a respondent would consume LFTB in the future; a 7-point Likert type question was used. The question asked respondents “How likely are you to eat lean finely textured beef (pink slime) in your everyday food consumption?”

Finally five Likert type questions using a seven-



point scale ranging from “Not likely at all” to “Very likely” were used to measure respondents' behavioral intentions. Questions included “How likely are you to check the label on meat at the grocery store” or “How likely are you to purchase only organic or free range beef.” Coefficient alpha for this scale was found to be .87. Demographics were measured using several questions about various demographic characteristics of the respondent.

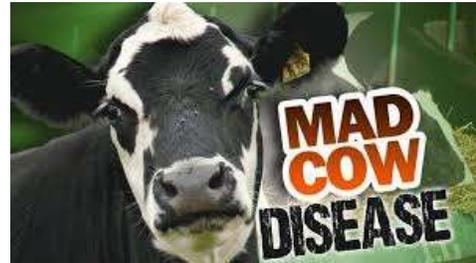
Lessons Learned

The type of message first viewed affects beliefs about product safety, perceptions of personal risk, and behavioral intentions to avoid or continue consuming a product. Messages high in negative exemplars of LFTB were more likely to create perceptions that the use of “pink slime” in meat is a big health risk with the possibility of creating long-term health risks. Individuals who only received negatively charged exemplar messages about LFTB reported the strongest behavioral intentions to avoid “pink slime”. Conversely, receiving a message refuting claims of negatively charged exemplars prior to viewing an exemplar message lead to the least perceived severity. These findings support the notion that being the first to respond has a direct impact on public opinion and behavioral intention. Additionally, individual receiver differences explain some variation in response to exemplar messages. Women will be more proactive or reactive, depending on the circumstance, and are more susceptible to messages with exemplars; it may be wise for organizations to target their messages at women as a primary audience when attempting to proactively diffuse exemplars, while at the same time having a secondary effect on the male audience. The issue at hand is one related to a complex assessment of risk; messages based in fact may be able to counter overreactions to risk that are driven by exemplification.

Bovine Spongiform Encephalopathy “Mad Cow Disease”

Case Summary

On April 24, 2012, the USDA announced the nation’s fourth confirmed case of Bovine Spongiform Encephalopathy (BSE), commonly known as mad cow’s disease. BSE is a neurological disorder in cattle caused by infection resulting from a modification of the animals’ prion protein. The source of the BSE infection is feed contaminated with cattle byproducts such as bovine flesh and bone meal. As such, the Food and Drug Administration (FDA) banned all mammal protein in animal feed in 1997. For humans who consume BSE infected meat and dairy products, the primary health concern is the risk of Variant Creutzfeldt-Jakob Disease (vCJD). vCJD is a neurological illness that presents psychiatric and sensory symptoms such as, but not limited to, anxiety, depression, memory loss, difficulty speaking and swallowing, and insomnia. The symptoms of the illness typically last six to 12 months, however the symptoms tend to affect children and adolescents more often than adults.



Thankfully for the American public, there was only one animal found with BSE in 2012. Immediately following the discovery, that animal was destroyed before it and its offspring were introduced to the national dairy or meat food supplies. The 2012 case of BSE is notable because it represents the best example yet of how the USDA has publicly handled BSE outbreaks. Immediately following the discovery of the infected cow, USDA Chief John Clifford held a press conference announcing the presence of the infection and assuring the public all potentially infected animal material had been removed from the food supply.

Method

This case study looks at not only the media coverage of and response to the 2012 BSE case but compares that coverage and response to the previous three BSE cases in the United States. Data collection for the case study required the use of the LexisNexis database for archived historical media reports of the outbreaks. The researchers selected relevant articles and reports based on keyword searches exhausting the time periods around each event.

The researchers used the multiple-case case study approach. This approach seeks to create multiple case descriptions

for the purposes of comparison. For this project’s purposes, the researchers sought to compare the evidence of organizational learning present in each of the previous three cases with that of the fourth. In other words, the researchers wanted to determine if the response from the previous cases exhibited evidence of the characteristics of best practices and whether what the learned from those previous cases contributed to the successful response in the most recent case. Four cases were analyzed for this project.

Bovine Spongiform Encephalopathy “Mad Cow Disease”

Best Practices for Risk and Crisis Communication



Results

Analysis of the cases indicates the response to the 2012 case exhibited characteristics consistent with the organizational learning phenomenon. Evidence of that is in the statement by John Clifford. The USDA confirmed the existence of the infected cow on April 24, 2012 and Clifford recorded and released his statement the same day. This is consistent with the tenets of best practices as outlined by the NCFPD, which suggest risk and crisis communicators remain accessible to the media and meet desires for mediate information and action. Though the success of the 2012 strategy could be attributed to the practical handling of the cattle by agricultural personnel, it is difficult to deny the communication aspect of the cases. Each of the previous three BSE cases in the US were incidents involving lone cattle but only the first two reached the food supply. The preliminary findings would argue the USDA and other agencies can attribute the public response and outcry from the outbreak to poor communication by their officials.

Lessons Learned

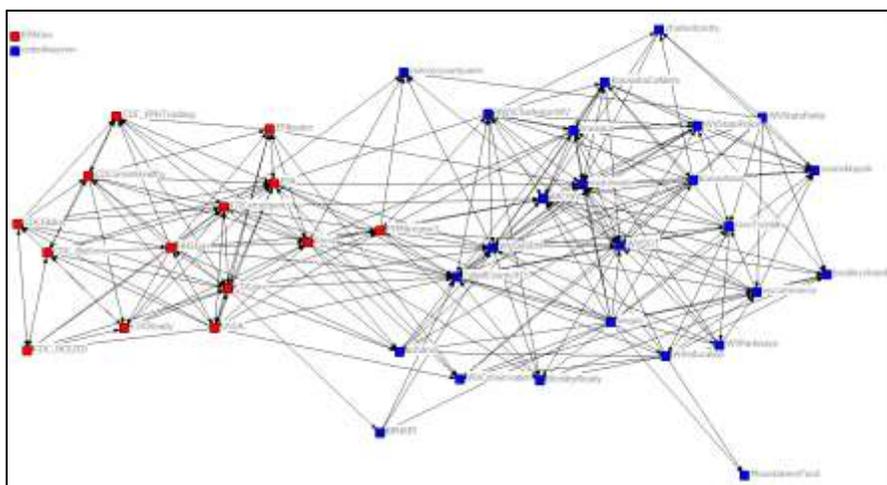
Using the multiple-case approach of case study analysis allows risk and crisis communication scholars to compare the crisis response from previous related issues to those of recurring and persistent issues. These cases particularly show how helpful an understanding of the mistakes and successes from past crisis can be. This is an important component of organizational learning. When organizations show they have learned from the mistake of their past, the public they are charged with protecting will have more faith in their ability to handle future crisis which inevitably occur.

In this case specifically, the USDA showed they understood how crucial successful handling of the mass media narrative around a crisis can be. If organizations are not proactive in reaching out to the media and their audiences, the narrative around a crisis can get away from them and their actual success in handling the crisis can seem irrelevant when compared to the perception. Best practices suggest listening to the public's concerns, demonstrating honesty, and understanding that risk and crisis communication is ongoing.

Results

Analysis of the network formed by the 41 official accounts tied to this event show a network that is not as well connected as it should be. The EPAgov and UnitedWayCWV accounts are totally isolated from the network and are not connected to any other accounts. Additionally, the network is clearly divided into two factions representing the local level and national level organizations with very few connections between the two.

The category with the largest count was “re-tweeted,” with “info sharing” as a close second. The category with the smallest count was messages of actionable self-protection.



CATEGORY COUNT		NOTE
Number of tweets coded "INFO SEEKING"	185	0.30%
Number of tweets coded "INFO SHARING"	27444	45.16%
Number of tweets coded "OUTRAGE"	3075	5.06%
Number of tweets coded "ACTIONABLE/SELF-PROTECTION"	120	0.20%
Number of tweets coded "ACTIONABLE/ACTIVISM"	347	0.57%
Number of tweets coded "OTHER"	251	0.41%
Number of tweets coded "RETWEETED"	28314	46.59%
Number of tweets coded "QUOTED TWEET"	1272	2.09%

Lessons Learned

It has been established that new media are changing the face of risk and crisis communication both in the ways that the public seeks information and messages for self-protection from official sources and the way organizations involved in the incident communicate and share information with each other. Best practices for risk and crisis communication have already pointed to the importance of creating strong networks as part of the pre-crisis planning phase, but the field has yet to acknowledge the importance of creating strong social networks via the primary social media sites. By analyzing the largely disconnected Twitter network surrounding this event, we see the potential for a disruption in the flow of information and a delay in the transmission of pertinent messages.

Implications from the analysis of the tweets show that an alarming lack of instructional messages for self-protection disseminated via Twitter. Additionally, the large amount of outrage indicate that the time is right to push for stricter regulation and oversight of mining and fracking industries, harsher fines for violators, and more frequent inspection of sites. Additionally, a large amount of tweets coded as “other” contained expressions of religion/sympathy (e.g. Keeping WV in my thoughts and prayers.) The researchers did not anticipate this when creating the coding scheme, but future researchers working with similar data sets/contexts should consider this when examining the types of messages disseminated.

Case Summary

This case focuses on foodbabe.com blogger Vani Hari, and her quest to get Kraft Foods Inc. to remove artificial dyes and GMO wheat from its macaroni and cheese products. In April 2013 Hari delivered a petition with 270,000 signatures to the Kraft headquarters in Chicago asking them to remove from their products certain petroleum based dyes that have been linked to ADHD in children. In the UK, products that contain these dyes must be sold with special warning labels on them but there is no such requirement in the US. In her initial meeting with them, Hari said that the Kraft spokespersons failed to address why the products contained these dyes and answered only by saying their products complied with FDA guidelines. Shortly after this meeting, a foodbabe follower posted a video of Kraft Macaroni and Cheese on the shelves at a Tesco in Ponders End, U.K. with a label that said it “may have an adverse effect on activity in children” and may contain genetically modified (GMO) wheat. Hari posted the video on her blog and social media sites and it quickly went viral. Kraft responded by insisting that it did not use GE wheat in any of its products and that because they did not have an authorized distributor in the UK the sticker was not authorized either. Snopes.com got involved and upon further investigation, found out that the label was indeed a hoax and “mostly false” because it was true that the dyes used have been linked to activity and attention issues in children.



Method

This case study looked specifically at the comments on Kraft Macaroni and Cheese’s Facebook page to demonstrate the ability of online activists to change the tone of Facebook posts from positive to negative. We examined the user-generated comments added under Kraft’s posts on their Macaroni and Cheese Facebook page from May 28 – June 15. The May 28 post was already up on the Kraft Macaroni and Cheese page when Hari posted the hoax label story to the Food Babe blog, so we were able to see the change in comments from positive to negative. The user comments under the posts during the following weeks were

also analyzed to determine how that tone maintained after the blog post. Comments were coded as either positive/neutral or negative, and if negative, whether the comment included the terms GMO or dye. If both GMOs and dyes were listed in a single comment, the comment was coded based on whichever term was listed first. 20% (n = 93) of the comments were first coded separately by two coders. Cohen’s Kappa was used to determine intercoder reliability. Reliability was satisfactory (K= 0.939), and the rest of the comments were coded by one of the coders.



Results

Overall, of the four Facebook posts that were studied as part of the content analysis, they received a total of 471 comments. Of those comments 197 were coded as positive or neutral while 274 were coded as negative. Seventy five of those negative comments specifically mentioned GMO's and 23 specifically mentioned the food dyes in the product. The social media hijacking furthered the promotion of the label hoax and drew attention to the ingredient differences in Kraft Macaroni and Cheese sold in the U.S. compared to other countries. Hari was able to increase the signatures on her Change.org petition to Kraft to almost 350,000 signatures (personal communication). Despite Kraft's adamant statement that they had no intention to change their stance on the dyes, on October 31, 2013, Kraft announced that they would indeed be removing Yellow No. 5 and Yellow No. 6 from the character pasta products of Macaroni and Cheese.

Kraft claimed the change had nothing to do with Hari and that Kraft had been planning the roll out of the new, more wholesome line of products for kids for several months (Wilson, 2013). But Hari and her Food Babe Army claimed victory and flooded Kraft Macaroni and Cheese's Facebook page once again. On October 30, 2013, Kraft Macaroni and Cheese posted a Halloween costume idea using Macaroni and Cheese. The post received 123 likes and 143 comments. Of the 143 comments, 141 commented on the news that Kraft was removing artificial dyes from three of its products. Most of the comments were in the vein of saying "thank you, it's a nice start but there is more work to do."



Lessons Learned

This study offers several implications for online activists and public relations researchers and practitioners by 1) providing an example of how traditional activist strategies have adapted for the online environment; 2) dismissing the notion that "slacktivism" cannot lead to change; 3) encouraging further research on collaborative relationships between activist groups; 4) presenting hoax as a viable, albeit potentially unethical, strategy to motivate action; and 5) outlining the benefits of more proactive issue management strategies. Kraft may still maintain more than 80% of the macaroni and cheese market share, suggesting that this campaign produced little economic threat; however, the constant negative comments on Kraft's own social media page could lead to an identity threat (Waldron et al., 2013). Rather than ignoring online activists until they build an army, organizations need to embrace online tools as a direct line for discussing consumer concerns.

In Summary: Lessons Learned

Each of these cases presents a unique opportunity for organizational learning and lessons for the food industry. By examining the communication failures of Wright County Egg and Hillandale Farms, the two companies at the center of the 2010 salmonella egg contamination, we see the importance of considering the health literacy levels of audience members when communicating messages of self protection during a crisis. During a crisis, people seek essential messages for self-protection key instructions on how to best shield themselves and others from the negative effects. In this case, the three key messages for self-protection were shared via the media at an alarmingly low rate. Additionally, confusing instruction and the use of industry jargon such as “cook eggs to 160 degrees” and “check egg cartons for these Julian dates” fail to consider the potentially low health literacy levels of those receiving the messages. Not only does this defeat the purpose of best practices for risk and crisis communication, it also violates the principles of significant choice, which claim that the only ethical decision making scenario is one in which the decision maker has all the information he/she needs. Thus, by not communicating in a way that could be understood and processed by individuals at various health literacy levels, they denied the audience the benefits of significant choice and an ethical decision.

When the media first coined the term “pink slime” to refer to the product lean fine textured beef (LFTB), it created a huge problem for the beef industry. By creating this negatively charged exemplar and presenting it to the public, it became more difficult for spokespersons from the beef industry to refute these messages with positively charged exemplars from their own. The study performed shows that the order in which exemplar-containing messages are received does affect audience perceptions of severity and long term health effects as well as their behavioral intentions to avoid consuming “pink slime.” The results of this study underscore the importance of being the first to speak in a situation like this and “set the tone” with positively charged exemplars.

Mad Cow disease is a term that has the potential to cause panic each time it is discussed in the media. The USDA is the organization charged with handling these cases when they occur. Though it has had some missteps in the past, the USDA learned from those mistakes and when a case of Mad Cow Disease was reported in 2012, it acted swiftly and appropriately. The actions taken by the USDA in 2012 are consistent with the organizational learning phenomenon and demonstrate adherence to the best practices for risk and crisis communication. Though the USDA learned its lesson from its own missteps during a crisis, other organizations need not learn these lessons the hard way and should instead engage in vicarious learning by focusing on how the USDA improved its response and incorporated the best practices for risk and crisis communication into their own crisis response plans.

In Summary: Lessons Learned

The state of West Virginia is no stranger to environmental disasters and contaminations caused by coal mining and fracking operations in the area, so when the Elk River was contaminated with 10,000 gallons of hazardous chemicals, the community was outraged. By using two separate data sets obtained from Twitter, we see that the organizations that should be connected to each other via a network to facilitate rapid transmission of key messages and information have failed to apply this best practice to their on-line social networks. It is recommended that organizations be proactive in forming online networks with each other in anticipation of a crisis situation that would cause them to work together and require the rapid dissemination and sharing of important information and key messages. Additionally, organizations should focus on disseminating more instructional messages for self-protection via social media sites. Given that this region has experienced its fair share of environmental contaminations and disasters, it only makes sense that people would feel outraged at yet another event. Those who focus on food defense should use this outrage as a prime example of why there should be stricter regulations, harsher fines, and more frequent inspections of those organizations in the mining and fracking industries. Finally, future research on the use of social media during crisis should account for the use of these technologies to not only gather and disseminate pertinent information, but also for expressions of religion and sympathy.

Kraft Foods quickly learned how social media could be used against it when a video of a Kraft Mac N Cheese box with a label claiming the product “may contain GMO wheat” was posted on foodbabe.com. The Kraft Facebook page was soon inundated with negative comments telling it to remove the chemicals from its products or risk losing customers. Though the label turned out to be a hoax, Kraft still suffered the consequences of negative press. The results of this case study show that “slacktivism” can be a viable strategy to bring about change and shows how activist groups have adjusted their strategies to the online world. Kraft learned this lesson the hard way and should have been more proactive in its management strategies. Other organizations faced with threats from online activists should not wait to address these issues until an army is formed and the response is reactive rather than proactive.