

ENHANCING NOFA/MASS' SOCIAL MEDIA OUTREACH CAPABILITIES

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ABSTRACT

In our project, we worked with NOFA/Mass (Northeast Organic Farming Association) to evaluate strategies for effective use of social media in support of its outreach and then produced our own content that could be distributed to further these goals. Our research included analyzing the NOFA/Mass Facebook page to see which topics drew the most traffic to the page, and to determine which groups would benefit the most from the production of new content. The content we produced during the course of our project included three video productions, each of which represented a category of outreach messaging of interest to our sponsor NOFA/Mass.

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We would like to thank our project sponsor Nicole Belanger, NOFA/Mass' Public Relations Coordinator and Newsletter Editor. Nicole's knowledge of NOFA/Mass' outreach material and guidance in selecting topics and interviewees for our digital stories allowed us to complete this project. We are also thankful for her help in evaluating the content on the NOFA/Mass Facebook page as well as her feedback on the multiple video drafts we produced over the course of the project.

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The goal of our project is to enable the Northeast Organic Farmer’s Association of Massachusetts (NOFA/Mass) to better reach out to their online community with material that is both compelling and informative. We have worked with the NOFA/Mass staff to decide on content that is useful to both organizations and outside individuals in order to create a series of digital stories that can be published on the web in video form.

The emergence of social media and its associated tools has allowed individuals and organizations to share information readily across the web in a variety of formats, such as simple text posts or photos, as well as more interactive methods such as videos that can be linked from third-party websites. The use of social media to share information with contacts is not dependent on paid services or other possible limitations that would restrict general users from publishing their own material where it can be viewed by others. Another main function of social media is its capability to link together different individuals into an online community.

Popular social media services in use today such as Facebook and Twitter provide users with a way to “follow” others and receive any updates that these contacts submit online. Social media is also widely used in the world of business and various organizations to contact supporters and for public relations purposes. The forms of communication between companies or organizations and their communities can often take the form of online testimony, questions and answers, or feedback about the company or organization.

Continuing development of web technology further expands the possible uses for social media. In recent years much of the advancement in social media took the form of applications designed for use on mobile devices, to facilitate the easier sharing of videos and other content. Facebook and Twitter both have mobile versions of their services that can be used on smartphones or tablets

One format of media that can be highly valuable to nonprofit organizations is the digital story. A digital story can take a multitude of forms on the Internet, but by far the most common variety is displayed via online video hosting websites, such as YouTube. A digital story consists of a speaker or host discussing a topic or event that holds great importance to them. In the case of NOFA/Mass, these topics are often about experiences relating to organic farming, agricultural policy, or even video productions that display a favored technique. The advantages of using digital stories to share information over the web are apparent, given the low production costs as well as the ease of sharing across social networks.

NOFA/Mass' current methods of communication with their community take several forms. These include their public page on Facebook, their Twitter feed, the NOFA/Mass website, and an online newsletter. NOFA/Mass' Facebook page is used frequently to update community members about opportunities for attending workshops or other educational events, as well as raising awareness of fundraisers. A part of our project involved evaluating the types of material that NOFA/Mass shared on their online social hubs. In particular, we focused on their Facebook page to provide us with an insight into what sort of information their community members were most interested in. This was accomplished with the help of NOFA/Mass' Public Relations Coordinator, Nicole Belanger, who provided suggestions on particular questions to analyze. We used Facebook's integrated statistics tracking system, called Facebook Insights, to evaluate the popularity of certain content types and whether any of the online posts attracted visitors to NOFA/Mass events in the real world.

In working towards our goal of enhancing NOFA/Mass' online communication strategy, our team produced a series of digital stories that could be shared via social media services such as Twitter and Facebook. These took the forms of a *Highlight Video*, *Profile Video*, and a *How-To Video*. We worked with Nicole to select speakers who were knowledgeable on a range of subjects of interest to NOFA, and then collaborated with those speakers to produce a set of videos. These included a video that highlighted NOFA's stance on GMO labeling policy in foods, as well as an interview and lesson in pruning apple trees with an organic orchardist.

Additionally, we produced a montage of scenes from the NOFA/Mass Winter Conference in Worcester. Our team set up a booth at the conference with the goal of recording short interviews in which we would ask NOFA members, "What does NOFA mean to you?" This intended method of interviewing did not work out as planned however, so the montage was instead produced out of a series of video clips and stills recorded during the conference. This video production aims to provide a brief overview of the events that took place during the 2014 NOFA Winter Conference.

Of the three digital stories we that we produced, we filmed the *Highlight* video first. The filming took place at the Many Hands Organic Farm in Barre, MA. It was there where our interviewee, Jack Kittredge, provided a description of NOFA/Mass aims regarding GMO policy, and specifically concerning labeling of GMO foods.

For the *Profile* video, our team visited the Old Frog Pond Farm & Studio in Harvard, MA to interview orchardist Linda Hoffman. She described in the interview how she applies her background training as a sculptor to her approach towards pruning the trees in the orchard – in particular, aesthetics are important and actually lead to more productive trees. Also in the video, she relates to the viewer how she supplies her apple

trees with rich nutrients to contribute to the health of both the trees and the eventual consumers of the apples.

Our *How-To* video was also filmed at the Old Frog Pond Farm & Studio. In this production, our team filmed Linda demonstrating her approach to pruning the trees in her apple orchard. As Linda pointed out, her training as a sculptor influenced her approach to shaping trees with her pruning saw.

Our analysis of Facebook statistics and our creation of these digital stories was intended to provide feedback on, as well as to augment, NOFA's set of social media techniques supporting their outreach efforts. The *Highlight*, *Profile*, and *How-To* videos were designed to present stories that are engaging and informative.

Our investigation of current outreach practices focused on statistics associated with NOFA/Mass' Facebook page in the calendar year 2013. We analyzed data covering Facebook Page Likes, Facebook Posts, External Referrers, and Fans. We observed a notable increase in Facebook Page Likes around the time of certain NOFA/Mass events such as the Winter Conference and Soil and Nutrition Conference. We grouped Facebook Posts into three categories -- Communication, Information, and Call for Action -- and found that Posts within the Information category that were particularly popular were those relating to local organic foods and products, beginning farmer mentoring programs, and information about community-supported agriculture. We also noted that Posts regarding GMO policy are popular. We learned that most people reach the NOFA/Mass Facebook page through the NOFA/Mass website and not through other websites. Regarding NOFA/Mass fans on Facebook, we found that most of the fans are women.

Based on our analysis of the NOFA/Mass Facebook data, we recommend that NOFA/Mass be particularly active in generating posts to their Facebook site near the times of popular events such as the Winter Conference and Soil and Nutrition Conference. Based on the Post Click Percentage data, we are suggesting that NOFA/Mass could post more material about local organic food and products as well as beginning farmer mentoring programs to spread information related to those two topics and to increase engagement with their fans. As only a small minority of people access the NOFA/Mass Facebook page from other websites, we suggest that NOFA/Mass consider targeted paid advertisements to increase access to their Facebook Page. As most of the fans are women, we recommend that NOFA/Mass consider increasing the number of Posts and plan additional events targeting men.

Our work over the course of this project suggests that digital narratives are an effective means for the distribution of information on the web. As a result of our planning and filming we were able to produce three digital stories, one with Jack Kittredge on GMO policy and the others with Linda Hoffman on her entry into

organic farming and her organic apple growing methods. One reason that a video on GMO policy is particularly appropriate at the current time is the amount of news coverage the topic has received lately. In the filming of our video with Jack Kittredge, we realized the importance of having selected an interviewee who is known to be a subject matter expert on the topic of GMOs. In the videos we filmed with Linda Hoffman, we recognized how her background as a sculptor enhanced both of our digital stories with Linda as an interviewee.

Our recommendations based upon our experiences in producing our digital narratives include the following points. In regards to the selection of interviewees, it is important, especially in the case of the *highlight* video, to select a participant who is known to be a subject matter expert on the video topic. The interviewee should be able to talk about the topic at length and if it is a subject regarding policy, provide a convincing argument that supports their point of view. One way to choose a topic for a digital story is to decide on the video interviewee first, then construct the narrative around a topic that the speaker finds interesting. In this approach it would be best to ask potential speakers for the digital story about their interests before agreeing to film with one of them. The backgrounds of the speakers in areas not necessarily related to agriculture is another important factor when it comes to selecting interviewees, as such experiences could enhance the digital story. Our experience interviewing NOFA/Mass members in our digital stories suggests that there are likely to be further opportunities to produce engaging and relevant digital narratives through interviews with NOFA/Mass members. Regarding the production aspects, our experiences filming on the different locations throughout our project also provided insight into steps that could result in a better film production. Examples of recommended actions to take during the filming process consist of bringing multiple cameras, a wind filter for microphones, and removing all distracting elements from the filming environment. It is also a good idea to record filler footage from around the filming location that can be used to conceal cuts. Movement footage or pans across scenery can serve this purpose well.

AUTHORSHIP

Chuqi Cai and Tom Hunt both contributed to the research and writing of this report. Chuqi and Tom collaborated to produce the Background Chapter, Methods Chapter, Findings Chapter, and Conclusion and Recommendations Chapter in this report. Chuqi and Tom co-filmed each of the digital stories produced over the course of the project. Additionally, Tom filmed a short montage at the NOFA Winter Conference. Chuqi evaluated and analyzed all the NOFA/Mass current outreach strategies. Tom edited the videos used in the production of the three digital narratives as well as the Winter Conference video, incorporating feedback on successive draft versions from Professor Hersh and the project sponsor Nicole Belanger.

Table of Contents

| | | |
|-----|--|----|
| 1 | Introduction..... | 10 |
| 2 | Background..... | 11 |
| 2.1 | Introduction..... | 11 |
| 2.2 | NOFA Introduction..... | 11 |
| 2.3 | What can organizations like NOFA/Mass gain from embracing social media?..... | 12 |
| 2.4 | How do organizations like NOFA/Mass engage stakeholders meaningfully on-line?..... | 14 |
| 2.5 | Advances in Web and Social Media – Improving Organization’s Outreach | 15 |
| 2.6 | Digital Stories and Their Value to Nonprofits..... | 17 |
| 2.7 | Effective Social Media Strategies for Non-Profit Organizations..... | 18 |
| 2.8 | Evaluating Success in Online Transactions | 19 |
| 3 | Methods | 21 |
| 3.1 | Introduction..... | 21 |
| 3.2 | Analyze current state of NOFA/Mass and its communication strategy | 21 |
| 3.3 | Determine Appropriate Types of Digital Narratives and Produce Examples | 22 |
| 4 | Findings..... | 26 |
| 4.1 | Introduction..... | 26 |
| 4.2 | Evaluation of NOFA/Mass Facebook Page | 27 |
| 4.3 | Preparations for Production of the Digital Narratives..... | 37 |
| 4.4 | Our Experience at the NOFA/Mass Winter Conference..... | 38 |
| 4.5 | Production of the Highlight Video | 39 |
| 4.6 | Production of the Profile Video | 41 |
| 4.7 | Production of the How-to Video | 43 |
| 4.8 | The Structure of Our Digital Narratives..... | 44 |
| 5 | Conclusion and Recommendations | 45 |
| 5.1 | Observations from Facebook Data | 45 |
| 5.2 | Observations on the Production and Impact of our Digital Narratives..... | 46 |
| 5.3 | Recommendations and Considerations for Future Work..... | 47 |
| 6 | Bibliography..... | 48 |
| 7 | Appendices | 50 |

Table of Figures

| | |
|--|----|
| Figure 1: NOFA/Mass newsletter | 12 |
| Figure 2: NOFA/Mass Facebook Page..... | 27 |
| Figure 3: NOFA/Mass Facebook Page Likes 2013..... | 29 |
| Figure 4: Example Facebook Post..... | 30 |
| Figure 5: NOFA/Mass Facebook Post Statistics | 32 |
| Figure 6: Protective cases of Caddisfly larvae | 33 |
| Figure 7: Debonair carrot | 34 |
| Figure 8: Information sub-category Post Statistics | 35 |
| Figure 9: External Referrers..... | 36 |
| Figure 10: Facebook Page Fans Statistics | 37 |
| Figure 11: An interview with a NOFA Winter Conference Attendee..... | 39 |
| Figure 12: Jack Kittredge speaking on GMO policy | 40 |
| Figure 13: Linda Hoffman speaks about becoming an organic orchardist | 42 |
| Figure 14: Linda Hoffman demonstrates pruning techniques for apple trees | 43 |

Table of Tables

| | |
|---|----|
| Table 1: NOFA/Mass Events in 2013 | 28 |
| Table 2: Most popular topics for Information Posts sub-category | 35 |

1 INTRODUCTION

The role of social media in recent years has grown as a contributing factor in the distribution of media and news across the web. One of the sectors in which social media plays a major part is in communications for non-profit organizations, such as Massachusetts chapter of the New England Organic Farming Association (NOFA/Mass). It is the goal of NOFA/Mass to more effectively use its presence on social media to reach out to its community and provide content that is both interesting and furthers its goal as an organization. NOFA wants to be more informed about what issues are of most importance to their community, as well as to find a method to distribute educational materials in a more engaging format.

NOFA/Mass already makes use of social media such as Facebook, Twitter, and their own website and newsletter to provide a certain amount of material to their members and interested parties. One of the areas where NOFA is lacking material is in the category of personal stories from members covering topics that could be attractive to a wide audience.

The goal of our efforts was to produce additional material for online sharing that would be both informative and interesting to the viewer, and in a format that could be readily shared by users across social networks. In the case of our project, we settled on the production of three types of digital narratives as a means to provide compelling ways for members of NOFA to tell their stories. These video productions fall under the categories of the *Highlight Video*, *Profile Video*, and *How-To Video*. Every one of these productions has a different story to tell, but all serve the purpose of allowing NOFA/Mass to use social media to share knowledge and agricultural techniques with the community. The availability of video material online that covers these topics will provide an interesting online repository of information and technical knowledge for those who are interested in the topics with which NOFA/Mass is concerned. Additionally, the hosting of digital stories on websites that can be readily linked together via social media connections such as Facebook posts facilitates the easier transmission of information between individual web users, and a more widespread distribution of material through the NOFA community overall.

2 BACKGROUND

2.1 INTRODUCTION

The purpose of this project was to support the outreach efforts of NOFA/Mass through the use of the evolving advances in social media strategies and technologies. To support this purpose, our project team worked directly with the NOFA/Mass executive staff to assess the current outreach approaches, and explored the use of an increasingly popular type of social media – digital stories – to help improve the effectiveness of the organization’s outreach efforts. Our team worked with NOFA/Mass members in developing and producing digital stories that highlight aspects of the organization’s mission, and worked with our NOFA/Mass sponsor to make these digital stories available on the web.

2.2 NOFA INTRODUCTION

NOFA/Mass is a nonprofit organization in the United States dedicated to promoting healthy food, organic farming practices, and a clean environment. NOFA aims to provide educational materials to farmers, gardeners, and other individuals who are interested in organic growing. These offerings include conferences, workshops, and tours of organic farms. Another key aspect of NOFA/Mass is its push for policy change regarding matters that affect its members, such as laws regarding the labeling of GMO foods. In terms of current media offerings to their members, NOFA/Mass has maintained a presence on several websites including Facebook, Twitter, YouTube, and periodically release a newsletter, *The Natural Farmer*, through their website.

The Natural Farmer

The Natural Farmer is the newspaper of the Northeast Organic Farming Association (NOFA). It is published quarterly as a 48-page newsprint journal. The paper covers news of the organic movement nationally and internationally, as well as featuring stories about farmers from New England, New York and New Jersey. Each issue contains a 16 to 24 page pull out supplement on a particular crop or topic. The paper also contains how-to-do-it articles suitable for gardeners and homesteaders.

Figure 1: NOFA/Mass newsletter

As part of expanding their online community, NOFA/Mass is looking to create digital narratives that can be used to augment their current strategy for social outreach.

2.3 WHAT CAN ORGANIZATIONS LIKE NOFA/MASS GAIN FROM EMBRACING SOCIAL MEDIA?

The dramatic increase in the use of social media in recent years has made a new and powerful tool available to nonprofit organizations in support of their outreach campaigns. Kanter and Fine in their book “define social media as the array of digital tools such as instant messaging, text messaging, blogs, videos, and social networking sites such as Facebook and Myspace that are inexpensive and easy to use. Social media enables people to create their own stories, videos, and photos and to manipulate them and share them widely at almost no cost” (Kanter and Fine, 2010, p. 5). Social media tools are low cost, so nonprofit organizations can use them as an inexpensive way to advertise (Curtis et al., 2010). With improving web technology, more and more people like to use social media to build relationships all around the world and share their stories. People can use social media to post updates, share photos and videos, and hold conversations. The power of social media to build relationships, share information, and connect people is a phenomenon that we are beginning to appreciate. Using social media in daily work is the easiest and fastest way for the practitioners who work for nonprofit organization to reach their goals.

In the resources we consulted for our project, the authors conducted studies to learn how nonprofit organizations successfully implement and sustain communication through the use of social media. Kristen Lovejoy and Gregory D. Saxton, researchers from the University of Buffalo, compiled a report showing that most organizations use Twitter for “three functions: Information, Community, and Action”

(Lovejoy and Saxton, 2012). These organizations used social media to spread the information about the organizations' activities, highlights from events, or any other news, facts, reports, or information relevant to an organization's stakeholders (Lovejoy and Saxton, 2012). In general, organizations can use social media to send information about activities or detailed information regarding its finances, governance policies, or performance.

Organizations also use social media to create an online community with their followers. There are four categories under this function: 1) giving recognition and thanks; 2) acknowledgment of current and local events; 3) responses to public reply messages; and 4) response solicitation (Lovejoy and Saxton, 2012). The last two categories are especially important for NOFA/Mass, since its goals are to inform local people about organic farming, update them on policy issues, create a support network, and notify people about the challenges that farmers and homesteaders have.

Non-profit organizations can respond to public messages using social media, addressing any questions they receive. The organizations also use response solicitation in order to open a relevant discussion about events or activities in the form of an open forum or conversation. These categories are effective ways to show the organization is a good neighbor and get feedback from its members and larger community. The *action* function motivates organizations' followers to distribute money or time to the organizations, usually in the form of donating or volunteering for the events. Action involves convincing followers of a nonprofit "do something" that forwards the objectives of the organization (Lovejoy and Saxton, 2012). As these authors state, this call to action can often take the form of an organization sending Tweets to call for volunteers, donations, or support for a policy issue.

These three functions—*information*, *community*, and *action*— are the main purpose for non-profit organizations to use social media.

In order to emphasize the importance of using social media, we documented one successful example of using social media for the nonprofit organizations. Initially, the staff of the American Red Cross was reluctant to receive direct feedback from the public. Later, Wendy Harman, the social media integrator of American Red Cross, and her colleagues began to use social media to listen to the public's opinion. Their goals were to correct misinformation, be informed about public opinion, track conversation trends, identify influences, and build relationships. Harman recalls, "We needed to listen and engage first before we could do anything successfully with social media" (Kanter and Fine, 2010). Using social media, they not only build relationships with public and hear their opinions, but also receive

necessary donations. In December 2008, they received a \$50,000 donation from the Western Union Foundation via Facebook.

The example described above shows that nonprofit organizations are able to efficiently meet their goals by using social media. These example reinforce the importance of fully utilizing the potential of social media for nonprofit organizations as parts of their communication strategies. We also found resources in the literature illustrating how the non-profit organizations use social media to reach their goals.

2.4 HOW DO ORGANIZATIONS LIKE NOFA/MASS ENGAGE STAKEHOLDERS MEANINGFULLY ON-LINE?

Nowadays, the most two popular social media methods are Twitter and Facebook. At least 19% Internet users use Twitter, a short message service which allows people to broadcast 140 or less characters message, and similar service in their daily life (Fox, Zickuhr, & Smith 2009). And there are 250,000 people averagely registering to use Facebook every day (Waters, Burnett, Lamm, and Lucas, 2008). According to these data, nonprofit organizations cannot ignore the influence of Facebook and Twitter. Nonprofit organizations need to learn how to engage stakeholders and take advantage of this social media.

Researchers from North Carolina State University, compiled a report shows that most often used dissemination method on Facebook is to use the discussion boards. 56% of organizations use Facebook to post photographs, 54% of them use Facebook to provide links to external news stories, and 44% of them use Facebook to post news announcements. About 24% samples uploaded video files to their profiles, and only 1% upload other types of audio files, such as .mp3, .wav, and .au. In general, nonprofit organizations can take advantages from Facebook by building connections with the stakeholders on discussion board, posting photographs of their events, and share the useful links from external website. (Waters, Burnett, Lamm, and Lucas, 2008). Sharing videos and other type of audio file is also a popular way to disseminate the organization information. According to the data, video is the most popular audio type for organizations to use on Facebook.

For organizations, Twitter is “a place for a combination of customer testimony, complaining, feedback, and Q&A” (Jansen, et al., 2009, p. 15). There are many tools for users to communicate with

each other on Twitter. Kristen Lovejoy, Richard Waters, and Gregory D. Saxton, the authors of *Engaging Stakeholders through Twitter: How Nonprofit Organizations are Getting More Out of 140 Characters or less*, did a research with a sample of 73 of American top-100 nonprofit organizations. In the research, they had six measurements: Following on Twitter, Tweets, Hyperlinks, Public Messages, Retweets, and Hashtags (Lovejoy, Waters, & Saxton, 2012). The number of Tweets can show how active the organization is. 80.8% of the samples is regarded as active. They update their Tweets at least 3 times every week. 68% of the samples have Hyperlinks which are the links of external information. The usage of hyperlinks by the nonprofits is much greater than that of individual users on Twitter. This shows that the organizations have more official information sources than individuals (Lovejoy, Waters, and Saxton, 2012). On Twitter, people can send direct, private message and post a public message via tweets with the "@" symbol. For example, a person can post a tweet with @ NOFA/Mass, then NOFA/Mass could see it is mentioned and reply in the same way. Using these public messages, organizations and their users can create a dialogue between each other, and this dialogue can be seen by other followers of the organization. According to the data, 16.2% of the sample tweets are public message. 29.9% samples have hashtags, which signify a message is pertinent to a particular topic. Hashtag can help users to sort information and help the organization find which topics the audience are most interested in.

According to these two studies, many nonprofit organizations are trying to use social media to engage stakeholders on-line. Facebook and Twitter are the most two powerful social media methods. There are many effective ways on Facebook and Twitter for nonprofit organizations to engage stakeholders. Nonprofit organizations like NOFA/Mass are able to reach their goals by taking advantage of these forms of social media.

2.5 ADVANCES IN WEB AND SOCIAL MEDIA – IMPROVING ORGANIZATION’S OUTREACH

Over the course of the last decade, the introduction of social media has allowed nonprofit organizations to communicate with their community in ways never possible before. According to one expert on social media, 25% of the time Americans spend using the Internet is used for visiting social networking sites (Kapin, 2013). As a result they have widespread exposure to news and content that passes through their personal networks, such as content posted by nonprofits seeking to spread their message. In addition to its purpose for communication and sharing media, social media enables users to easily contribute to a cause which they support – making it a prime medium for seeking support for

policy. Phones and other mobile devices are now commonly used for social networking purposes as well as computers. Devices such as those running Apple's mobile operating system, iOS, are heavily integrated with social networking applications such as Facebook and Twitter – apps a user installs are often capable of sharing content directly to one of these networks. According to Kapin, 33% of the total Facebook visitor traffic is conducted through the use of mobile devices (smartphones, tablets, etc.). The usage statistics for Twitter usage via mobile are even higher, at 50% (Allyson Kapin, 2013).

With the development of newer web-based technologies organizations have become more empowered to reach out to their target audience for a range of purposes such as general knowledge sharing, promoting the organizations' objectives, and efforts to expand membership and the online audience. This empowerment is seen in the forms of increased access and increased efficiency. A prime example of this form of efficiency can be found in today's social networking sites, where users have the capability to communicate and share digital content all through the same medium. Google's YouTube, for example, combines video sharing and commenting with their "Google +" social network. This allows users to easily watch videos and seamlessly recommend the videos to friends without leaving the site. The evolution of the Web 2.0 technologies hosted on the web makes it possible for a massive audience to acquire the information developed by an organization not only via a computer with internet access, but increasingly through mobile devices. Examples of Web 2.0 technologies readily accessible to end users are blogs, wikis, videos, virtual environments, and other technologies that allow for two-way communication between users over the web (Costopouloul, Ntaliani, & Sideridis, 2013).

One key feature of web 2.0 technology is "microcontent" – a self-contained piece of information that conveys a key idea (Alexander, 2008). Use of Microcontent makes for easy embedding of multiple materials, which may be different content types such as a photo and a video clip, within a web page. Another useful quality of embedded microcontent is that it usually links the user back to its source when clicked on, thus furthering the online journey of the user and creating publicity for the content host. Creating sites to host information and microcontent no longer requires learning HTML and buying a domain name. There are a variety of blog-hosting services that allow users to register free accounts, use built-in templates to configure their page, and embed and upload their own content (Alexander, 2008). Examples of these types of sites are Wordpress and Blogger.

Social media based on web 2.0 technology is ideal for the telling of digital stories to a wide audience across a wide distance. The previously described social media combined with the usage of

microcontent allows for easy information sharing among web users. Specifically, in the case of posting and viewing digital stories in the form of a video, social media allows for the video to be shared by a user or group among their associated contacts, and fan out to the contacts of the contacts. If the video is hosted on YouTube and embedded on a site such as Facebook, clicking the video will bring the viewer back to the YouTube website and present an opportunity for the user to view other videos from the same uploader or other related content.

The specific options for users to create their own story and post it online are growing continuously as new technologies are unveiled and new ideas implemented in an online setting. Besides the prior example of conveying a story using online video, there are many other accessible tools for use in a like manner. These include online photo slideshows, wiki pages, embeddable slideshows, podcasts, as well as other forms of media (Alexander, 2008).

The use of video-sharing sites like YouTube has become increasingly accepted as a valuable tool in support of online education, also known as e-learning (Henn, 2012). An organization's outreach goals that can be supported through e-learning may include education of their members as well as the general public about topics such as the organization's mission, technologies, challenges, policy perspectives, and events. YouTube videos have been recognized by professional and educational organizations as becoming an important technology for training. For example, as indicated in the Online Journal of Nursing Informatics, educators for nurses are increasingly making use of YouTube videos relating to nursing skills in their lectures (Hansen & Erdley, 2009). In regards to teaching agricultural practices, Cornell University has published a series of videos aimed at teaching viewers through carefully documented procedures. For instance, one of the videos hosted on the channel describes the process of soil preparation and composting. The entire listing of videos can be viewed on their YouTube channel at: <http://www.youtube.com/user/cornellsmallfarms>.

2.6 DIGITAL STORIES AND THEIR VALUE TO NONPROFITS

One of the methods of communication enabled by the emergence of social media and related Web 2.0 content sharing technology is the *digital story*. The digital story is a type of narrative (commonly displayed via video) in which the subject can relate to the viewers a topic that is of interests to them (Alexander, 2008). Digital stories are especially valuable to non-commercial entities such as

NOFA/Mass, as they require minimal costs to produce – the bare necessities required being a form of camera and access to the Internet. Several years ago, before the widespread introduction of tablet devices such as the Apple iPad and variants from other manufacturers, individuals interested in producing a digital narrative had to rely on recording film footage and then transferring it to a computer where it could be edited. In recent years it has become possible for one to record, edit, and publish a digital story entirely from a phone or tablet device. Many video editors include options for streamlined uploading of content to YouTube, Vimeo, Facebook, and other online hosting locations.

2.7 EFFECTIVE SOCIAL MEDIA STRATEGIES FOR NON-PROFIT ORGANIZATIONS

Distribution of news and content through the community itself is a major component of information sharing via social media. According to Kanter and Fine in *The Networked Nonprofit*, it is important to link the website to an organization’s presence on social networking websites such as Facebook or “Google +” in order to connect with users on those social networks (Kanter and Fine, 2010). For organizations such as NOFA/Mass, whose outreach goals include education and advocacy, Kapin and Ward suggest that the technique of storytelling is particularly effective to motivate people to respond to advocacy efforts (Kapin and Ward, 2013). According to Paul Young of Charity: Water, “big things can happen if organizations can share their story and get supporters excited and inspired enough to re-share them with people in their communities” (Kapin and Ward, 2013). For example, the Service Employees International Union (SEIU) used video storytelling to highlight the value of public employees. In this outreach campaign they targeted a set of influential figures as well as video sharing channels. Through this approach the SEIU were able to reach an expanded targeted audience resulting in “a video with over 325,000 views in less than a week, and coverage on culture blogs such Boing Boing” (Kapin and Ward, 2013 p.60).

Social media has also been used effectively by nonprofit organizations to assist in fundraising and spreading a message to wider audiences. An instance of where broadcasting a message brought in greater donations can be seen in the example of March of Dimes, which produced a Facebook application that broadcasted a user’s intention to take part in a charity walk to their network of friends. This sort of linking between an organization’s effort and a potential network of contributors through participants’ friends had a significant result on fundraising. As stated in *The Networked Nonprofit*, this effort was able to increase the number of charity walkers participating in March of Dimes efforts

between 2009 and 2010. This increased actual donations by 102 percent (Kanter and Fine, 2010). This technique of using supporters to broadcast a cause to their contacts is more effective than just reaching out directly to the target audience, these results show. Users are more likely to trust someone they already know, and the use of peer pressure can convince others to take part in a cause (Saxton and Wang, 2013).

2.8 EVALUATING SUCCESS IN ONLINE TRANSACTIONS

There are a variety of online tools available to researchers as well as members advocacy organizations that may be used to evaluate the impact of online interactions and web searches. In *Social Change Anytime Everywhere*, the authors suggest that each organization should identify Key Performance Indicators (KPIs) that are specific to an organization's objectives (Kapin, 2013). For example, it is useful to know if the people who are reached by the organization with its messages are taking action, such as making donations to the organization, contacting their representatives in Congress, responding to surveys, or volunteering for projects.

The authors point out that one measure of the effectiveness of a campaign that an organization is conducting is not just the count of visitors to a landing point on the organization's website that is specific to the campaign, but more specifically the count of repeat visitors. A high value for this latter number is an indication that visitors are returning to the website after they may have taken some initial action related to the campaign.

When there are multiple organizations promoting a particular campaign, an organization may want to understand its share of the web searches for a given keyword or topic. The authors indicate that there are multiple commercial vendors, such as Compete.com (<https://www.compete.com/>), that can provide information about the unique visitors to an organization's website and provide similar information for other competing organizations that may be promoting a similar campaign.

The authors call attention to one of the free tools available from Google, called Google Trends (<http://www.google.com/trends/>), which shows information about search results for a given search term or set of words used in web searches. Google Trends indicates the most popular related search words that have been used in a selected time interval such as the last month or last year. This tool also

indicates interest in the search term over time, and by region of the world, or smaller regions such as the United States, or a particular state or city in the U.S.

The tool called Thrive, available at (<http://smallact.com/>), is intended for the nonprofit community and can identify influential sources that may be talking about issues that are the same or similar to a nonprofit's campaign issues (Kapin, 2013). Thrive is capable of tagging contacts and messages with keywords so one can organize followers and correspondence into different categories. It also can provide listings of community activity, such as reporting on how frequently an organization is mentioned on social media by a community member, and even graphically chart various metrics including the number of retweets and followers over time. Using this information, the nonprofit organization may reach out to these individuals or sources as part of their own campaign efforts.

3 METHODS

3.1 INTRODUCTION

In our project, we aimed to assist NOFA/Mass in identifying a strategy to use social media to advance the interests of the organization and its members. In order to reach this goal, we identified the following objectives: 1) Analyze the current state of NOFA/Mass' communication strategy in order to determine how it can be improved; 2) Determine the most appropriate types of digital narratives to highlight NOFA/Mass programs and policies and produce digital narratives that are examples of these types; 3) Design a short video to help NOFA/Mass members make and disseminate their videos online, and 4) Recommend approaches for evaluating the impact of these digital narratives. In this chapter we describe how we pursued these objectives.

3.2 ANALYZE CURRENT STATE OF NOFA/MASS AND ITS COMMUNICATION STRATEGY

As discussed in the preceding chapter, NOFA/Mass is a non-profit organization based in central Massachusetts that promotes healthy food, organic farming practices, and a clean environment. Since there is relatively little available in the academic literature about the activities of NOFA/Mass, our team interviewed Nicole Belanger, NOFA/Mass' Public Relations Coordinator and Newsletter Editor, to obtain background information about NOFA/Mass' communications strategy.

Here is the list of interview questions we asked Nicole in a face-to-face interview conducted in September 2013:

1. What is the current state of communication between NOFA/Mass members?
2. Why does the organization want to increase their use of social media?
3. How would you characterize NOFA/Mass' intended audience and how would you characterize NOFA/Mass' efforts to communicate with a diverse membership?
4. What are the key themes or issues you believe NOFA/Mass should focus on to serve existing members and attract new members?

To analyze the Facebook account of NOFA/Mass, we used Facebook Insights after receiving assistance from NOFA/Mass to access their account page.

Facebook Insights: there are two types of Facebook insights:

- User insights: Total page likes, or a number of fans, daily active users, new Likes/Unlikes, like sources, demographics, page, views and unique page views, tab views, external referrers, media consumption.
- Interactions insights: daily story feedback (Post likes, post comments, per post impressions) and daily page activity (mentions, discussions, reviews, wall posts, video posts).

With the assistance of our sponsor we were able to log into the NOFA/Mass Facebook insights page. We obtained useful statistics on page visits and influence and tracked the monthly page fans count, the three page post data types, the external referrers, and the information about all the fans (Walter, 2010).

According to the average number of Likes or comments, we were able to identify which discussions were most interesting for NOFA/Mass community members. After we knew this information, we assisted NOFA/Mass in choosing Facebook post topics that could increase their fan base. Using the data from the demographics, we were able to analyze the genders of fans, their ages and where they were from; this information could help NOFA/Mass refine their target audience. We recorded the daily number of the Net Likes, the difference between Facebook page likes and the Facebook page Unlikes, then we measured the influence of NOFA/Mass events in terms of the Facebook Page Likes. Referrers is a new metric that tells where the traffic to the NOFA/Mass page originates. This allowed NOFA/Mass to increase exposure to the page on the referrer sites that brought NOFA/Mass the most traffic.

3.3 **DETERMINE APPROPRIATE TYPES OF DIGITAL NARRATIVES AND PRODUCE EXAMPLES**

In order to produce the digital stories for NOFA/Mass, we first determined the most appropriate types of narratives and then identified persons to interview. We were assisted by Nicole Belanger who helped us with networking among potentially interested subjects for digital stories. Nicole liaised with NOFA/Mass board members and identified a number key themes and persons with whom we could collaborate.

Additionally, we attended the NOFA/Mass Winter Conference that took place at Worcester State on January 11th and which attracted some 800 persons. We saw this as an opportunity for networking by using our project booth at the conference as a way to make contact with interested video subjects. However, at the Winter Conference our table was not situated in a high-traffic area; this resulted in few visitors. In any case, our group was able to obtain general footage of the conference along with one interview in which the subject addressed the question “what did you hope to learn by attending this conference?” We used an iPad with HD video capabilities to record the footage and the mobile version of iMovie to combine it in a presentable form. These recordings were put together by our team into a short montage showing our experiences at the conference.

In the project we produced three different varieties of digital stories told in a video format and distributed the videos we produced via YouTube or Vimeo videos embedded on or linked to from the NOFA/Mass website. These are the profile, highlight, and how-to video. We determined to use these videos for the formats of our digital narratives after discussion with our sponsor Nicole during team meetings in the planning phase of our project.

The profile video is a subject-centric format, detailing from a subject’s point of view an experience that is meaningful to them, or passing insight along to the viewers. We produced a profile video with Linda Hoffman of Old Frog Pond Farm in which we conducted a subject-guided interview. Our team had corresponded with Linda to produce a script and storyboard for the digital story, which we then used in the actual filming process. We provided Linda with some initial questions, and then filmed her responses. These include questions such as “how do you deal with the changing weather and the market?” “What skills are required to be a successful farmer?” and “why are you organic?” The footage of Linda speaking has been interspersed with other shots from around Old Frog Pond farm, with some of the scenery footage accompanied by voiceover from the interview.

The second variety of video, the highlight, is in line with the traditional documentary structure of films. It aims to educate the viewers on a key goal or program of NOFA/Mass and how either is related to NOFA/Mass’ ultimate mission. Somewhat more subject-directed than the profile video, our group – in the production of the highlight video – provided only general guidelines to the subject; we then used the resulting feedback to draw together a script and storyboard. The actual filming was in a documentary style format, with voiceover and various cuts of the subject(s) commenting on camera.

We filmed this segment of our project at the NOFA/Mass headquarters in Barre, MA. While we were at Barre, we were able to interview Jack Kittredge on NOFA/Mass' GMO policy goals.

The third variety of digital story, the how-to video, is purely instructional in nature. This video walked the viewer step-by-step through agricultural practices as exhibited by an experienced farmer. It aimed to provide accessible, quality teaching material to a wide audience over the web. We primarily planned the format of this video based upon other tutorial videos hosted on the web. These videos were on a range of subjects, but the method of presenting information to the user in an ordered form remained the same despite the video topic, thus the techniques used were applied to our how-to videos for NOFA/Mass.

While our interviewee, Linda Hoffman, an apple grower at Old Frog Pond Farm in Harvard, MA provided the knowledge and experience needed for the content of the how-to video, our team was responsible for determining how to organize and convey the content through our video production. In the how-to video about pruning an apple tree we covered the process of pruning the trees at the orchard at the beginning of the pruning season in February.

The actual film production process remained more or less the same for the different formats we produced. As with any video based around interaction with experts, the first step of our production process was to identify the video subject(s) or interviewee(s). After the interviewees were identified, we coordinated with them to arrange for the eventual production. This involved writing up a script, producing a storyboard, and taking care of any other details that might be required prior to filming. For most of the video formats it was the job of our group to provide the framework of a narrative in the form of general questions. We then relied on the expertise of the subject to convey the information in a meaningful way. Our team also served as a test audience during the production phase, having assumed the role of the layperson to help validate that the content could be well understood by a broad audience. Once all initial setup has been completed, we began the actual filming phase. This involved us travelling to the site of the farm and recording both the interview footage and filler footage on location. We used lapel microphones to capture high-quality audio voice recordings from the video subjects. After all necessary footage had been compiled, our group began to edit what we had accumulated. This was the most difficult part of the process, as a high-quality production is required to compete for visual interest with the other professional quality videos that are online. These efforts resulted in an initial rough-cut of one of the three video formats. The next step was to obtain initial

feedback from our project sponsor on our initial video production. From our experience, it was most convenient for all parties involved to upload the rough cut to an online hosting site and exchange feedback over email. After our team received feedback, we revised our video productions to take any recommendations into account for an updated version. Once the videos have been OK'd by NOFA/Mass for posting, we will upload our content to several different websites agreed upon with NOFA/Mass so that a wide audience will have access to the material. At the moment, the digital stories are available for viewing on a project YouTube channel.

Effective communication about the end goal was imperative in producing a digital story that satisfies both the subjects of the digital story and NOFA/Mass. In order to manage the expectations of the interviewee/subject, our team participated in regular communication with the interviewee/subject throughout the duration of the design, production, and critique of our digital story. We expected that the extent of editing we did for each digital story depended on the client, as some clients might have a greater interest or capability in the editing process. The decisions we made regarding the platform we used for editing were for the most part based on the past experience of our group members. For instance, both Adobe Premiere and Final Cut Pro were tools we have worked with in the past to produce videos, and both software packages are used by professionals to create high quality content. Therefore either editor seemed like an acceptable choice for the production of a high-end digital story.

All the video content that we created was produced using professional equipment. In the case of the video production tutorial, we used professional quality equipment to record a depiction of filming and editing using mobile devices. In accordance with this plan, the *highlight*, *how-to*, and *profile* have been filmed using equipment obtained from the Academic Technology Center (ATC) at WPI and edited with professional software.

4 FINDINGS

4.1 INTRODUCTION

With respect to NOFA/Mass' current outreach practices, we present in this section an analysis based on statistics derived from the NOFA/Mass Facebook page for postings during the calendar year 2013. These data capture the user activity on the NOFA/Mass Facebook such as page "Likes," "Unlikes," and other indicators of user interest for NOFA/Mass outreach activities and events.

From our experiences working with NOFA/Mass members, our team reached the conclusion that the digital narrative is an effective medium that can be used for outreach over the web. From the visits our team made to the two different farms, we were able to come away having recorded a compelling story from both Jack Kittredge and Linda Hoffman. One of the reasons the interview with Jack Kittredge on GMOs was so compelling is because of the relevance of the topic in the news. As decisions regarding the labeling of genetically modified organisms in food products and other goods are being debated, it is an ideal time for NOFA/Mass to augment its outreach materials concerning its policy on GMOs and its support labeling of GMO foods.

The *Profile* video featuring Linda Hoffman is an ideal piece of content for providing insight into the process through which people who are initially outside the organic farming movement begin to be involved. It provides an overview of her experiences as she became involved in organic farming, and the steps that she followed to become an orchardist.

The *How-To* video in which Linda describes her method to prune apples trees, is designed to assist NOFA/Mass in spreading information that could directly benefit current organic farmers through tutorials on relevant farming practices. Through the publication of this video online, NOFA/Mass can help individuals who are interested in organic apple care learn proven techniques from those who already are familiar with the methods involved.

4.2 EVALUATION OF NOFA/MASS FACEBOOK PAGE

This section presents the major findings of the data drawn from the NOFA/Mass Facebook page. We analyzed the data for Facebook Page Likes, Facebook Posts, External Referrers, and the Fans. Facebook Page Likes is the number of people who clicked the Like option. People could become fans of NOFA/Mass Facebook page after they liked the page. Facebook Unlikes are the number of people who clicked the Unlike option if they previously liked the page; therefore, they are no longer fans of the NOFA/Mass Facebook page. The option to Like the Facebook page can be found below the post (circled in red in Figure 2).



Figure 2: NOFA/Mass Facebook Page

4.2.1 Facebook Page Likes

There were five primary NOFA/Mass events during the sample period (1/1/2013-12/31/2013). These events are listed in Table 1.

Table 1: NOFA/Mass Events in 2013

| | | |
|----|--------------------|--|
| 1. | 1/12/2013 | 26 th Annual Winter Conference |
| 2. | 1/31/2013-2/2/2013 | Soil and Nutrition Conference: Putting Principles into Practice |
| 3. | 8/9/2013-8/11/2013 | NOFA Summer Conference |
| 4. | 10/24/2013 | Fat-Soluble Vitamins in Traditional Diets: Nutrient-Dense Animal Foods as the keys to Vibrant Health |
| 5. | 11/4/2013 | Farm Profitability: Season Extension and Marketing for the Small Farm |

We were interested to know what impact these events had on the traffic on NOFA/Mass' Facebook page. The number of likes for the Facebook page throughout the course of 2013 is shown in Figure 3. The shaded gray area indicates Page Likes, the shaded blue area indicates Page Unlikes, the red line indicates the Net Likes, (the difference between Likes and Unlikes), and the number above the graph indicates the event number.

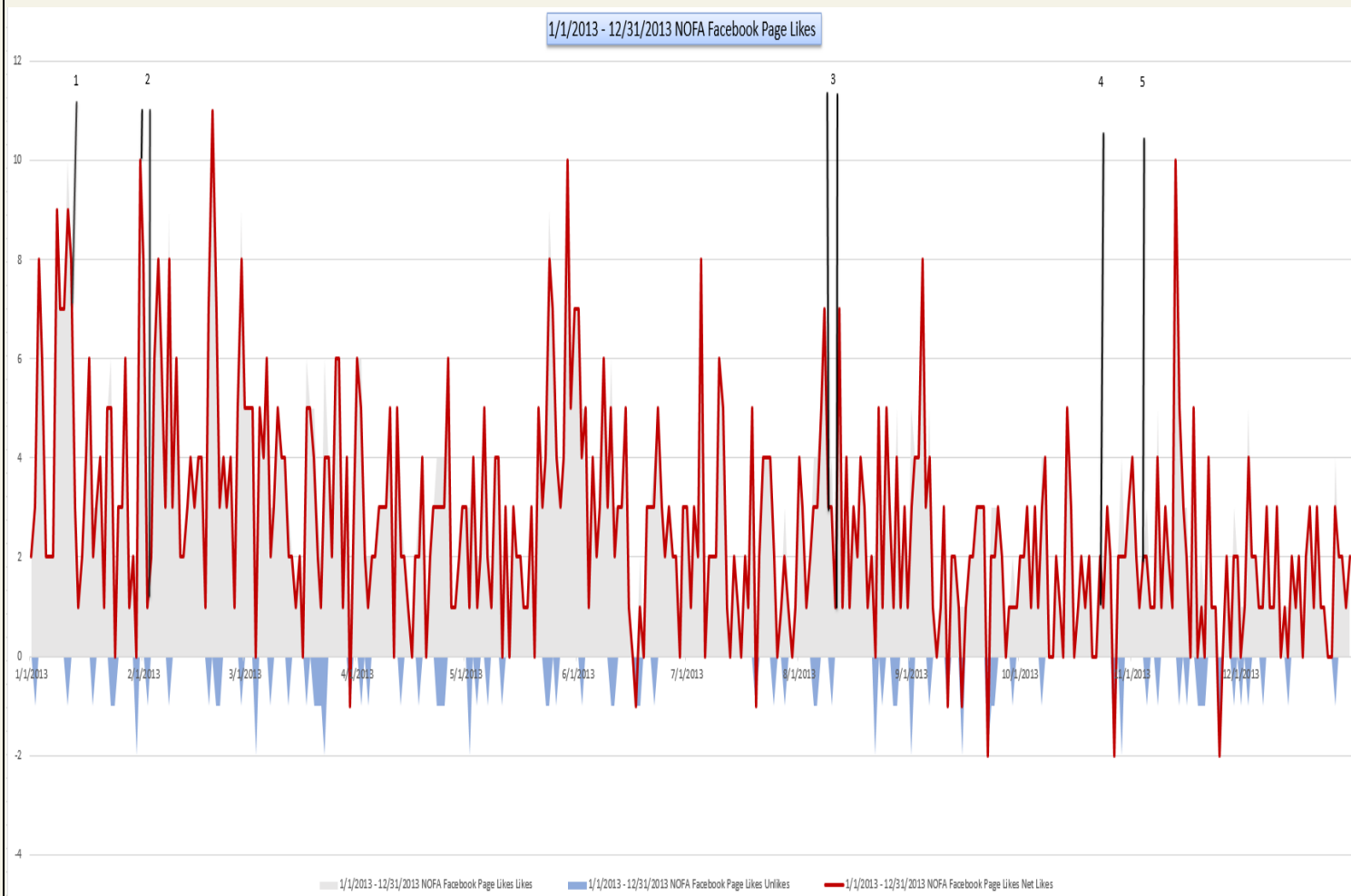


Figure 3: NOFA/Mass Facebook Page Likes 2013

For the period around the Winter Conference (Event 1) and the Soil and Nutrition Conference (Event 2), there is evidence of a large increase in Net Likes. We can see that NOFA Summer Conference (Event 3) also attracted some Net Likes. During the Event 2 and Event 5, the Net Likes did not increase as much as they did during Event 1 and Event 2.

4.2.2 Facebook Page Posts

People typically post on their Facebook Page for sharing stories or information. Facebook allows page visitors to Like, Comment on, or Share any post that is on the page. The options to Like, Comment, or Share can be found below the post (circle in red in Figure 4). The number of Post Likes and Shares can be found in the right lower hand corner of the post. People can also comment by typing in the white box below the post.



Figure 4: Example Facebook Post

There were 76 posts to the NOFA/Mass Facebook page in 2013. We grouped these posts into three categories: Communication, Information, and Call for Action. The categories were chosen based on the findings of Lovejoy and Saxton (2012). The definitions of these categories are shown below:

- **Communication Posts** consist of posts that recognize and give thanks to users and groups, publications of current news in the surrounding community, and comments on local events held by other organizations.
- Examples of **Information Posts** are posts that highlight sponsored events, or any other news, information, and reposts that are relevant to the organization's stakeholders. This category also contains four subcategories:
 - News Information: This is information about the NOFA/Mass newsletter and policy, as well as social news related to organic foods
 - Event Information: This consists of information about guests speakers or talks
 - Workshop Information: Information on upcoming NOFA/Mass workshops
 - Other Information: Any other information that does not fit into the above categories (there are not many posts that fit here)
- In a **Call for Action**, NOFA/Mass publishes requests for contributions of money or time, and provides registration information for future events

For every post, we were interested in three types of data: Reach, Post Clicks, and Likes & Comments & Shares. These are defined as:

- Reach: the number of individuals who saw the Page post.
- Post Clicks: the number of people who click the page post for details.
- Likes & Comments & Shares (LCS): the total number of actions which includes like, comment, and share.

We averaged the three types of data for each category. , and Figure 4 illustrates the results.

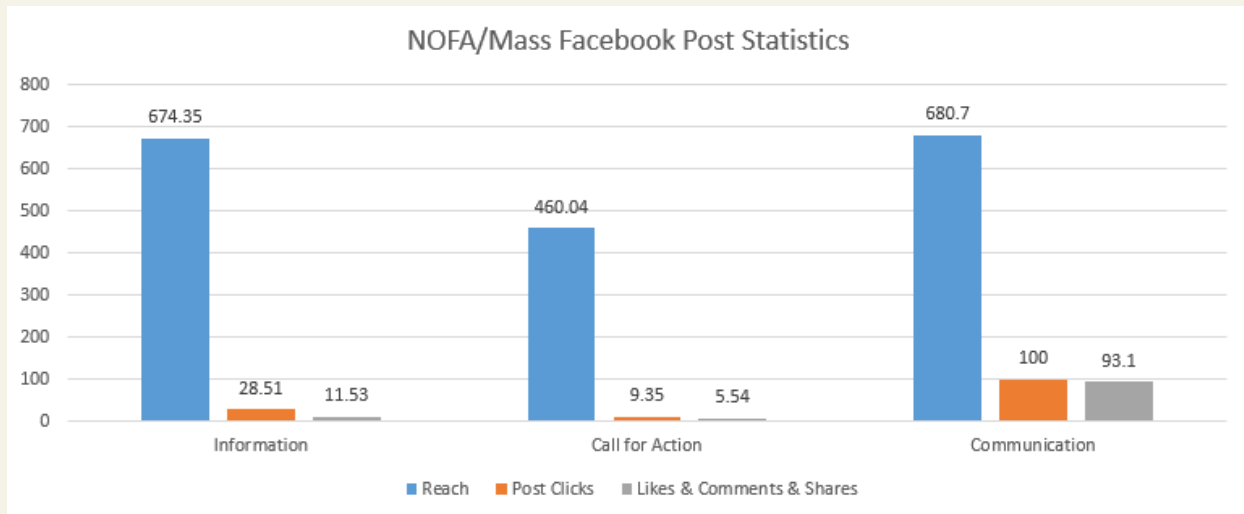


Figure 5: NOFA/Mass Facebook Post Statistics

From this graph, we can see that communication posts attracted the most people to click as well as take the next step and share, like, and comment (LCS) on the post.

Among the three types of data, NOFA/Mass is less interested in the total number of people who saw the post and more interested in the number of people who felt strongly enough to respond in some way. Therefore the data of Post Clicks and LCS are more important for NOFA/Mass because this data shows how many people were attracted to the NOFA/Mass Facebook Page posts and responded in some way.

In order to compare how many people clicked or responded via like, share, and comment (LCS) on the posts in each category, we expressed these numbers as percentages of total number of people the post reached. We divided the Post Clicks by the Reach, and divided the LCS by the Reach, to show the percentage of people who clicked the post for more details when they saw it and the percentage of people who shared, commented, or liked the post when they saw it. These calculations are summarized in two equations below:

$$\text{Percentage of LCS} = \frac{\text{likes} + \text{comments} + \text{shares}}{\text{Reach}} \times 100\%$$

$$\text{Percentage of Post Clicks} = \frac{\text{Post Clicks}}{\text{Reach}} \times 100\%$$

We ranked all the posts by the percentage of Click Posts and the percentage of LCS.

For Communication Posts, the most popular post was a set of nice pictures of the protective cases of Caddisfly larvae, which were made of gold (see Figure 6 below). This post was also the most popular post in the entire sample. Its Post Clicks percentage was 33%, meaning that 33% of the people who saw the post took action to click that post for more details. The LCS percentage was 38%, which indicates that 38% of the people who saw this post felt compelled to like, share, or comment on it. The second most popular post for this category is a picture of a debonair carrot on the cover of an old seed catalogue (Shown in Figure 7).

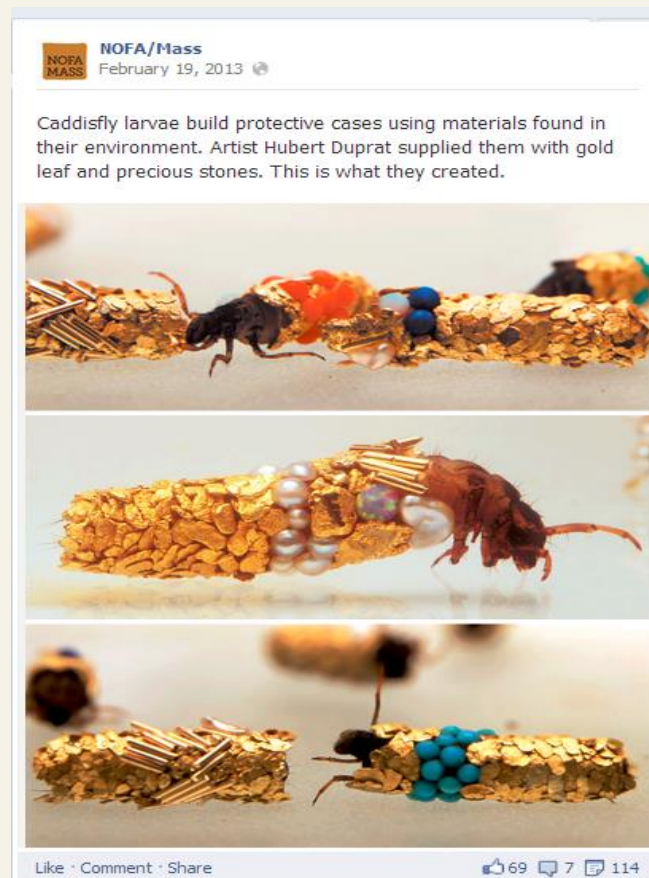


Figure 6: Protective cases of Caddisfly larvae



Figure 7: Debonair carrot

Next, we analyzed the 4 sub-categories of the information category – workshop information, news information, event information, and other information. The results are shown in Figure 8.

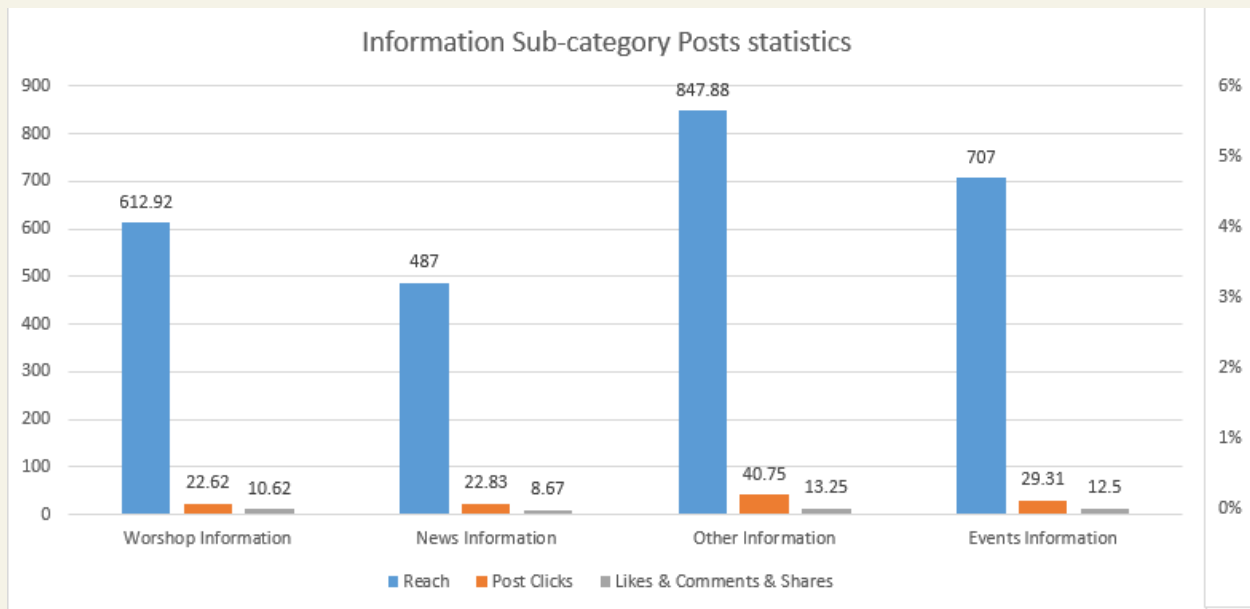


Figure 8: Information sub-category Post Statistics

We found that the Other Information sub-category had most Post Clicks and LCS. The most popular topics in terms of percentage of Post Clicks for each sub-category are shown in Table 2.

Table 2: Most popular topics for Information Posts sub-category

| | Other Information | Events Information | Workshop Information | News Information |
|---------------------|---|--------------------------------------|----------------------|--------------------------------------|
| Most Popular Topics | Local organic food and product | The need for restoration agriculture | Bee school | Policy discussion for GMOs |
| | Beginning Farmer motoring program | Renewing gardens | Raw milk dairy | NOFA/Mass newsletter |
| | Information about community supported agriculture | Raw milk dairy | Mushroom cultivation | Other news links related to organics |

For Call for Action posts, the most popular topics were registration for NOFA Winter/Summer Conference, and the hiring information of other similar organizations.

4.2.3 External Referrers

The External Referrers shows the number of times people were directed to the NOFA/Mass Facebook Page from a different website. The results for external referrers are shown in Figure 9 below.

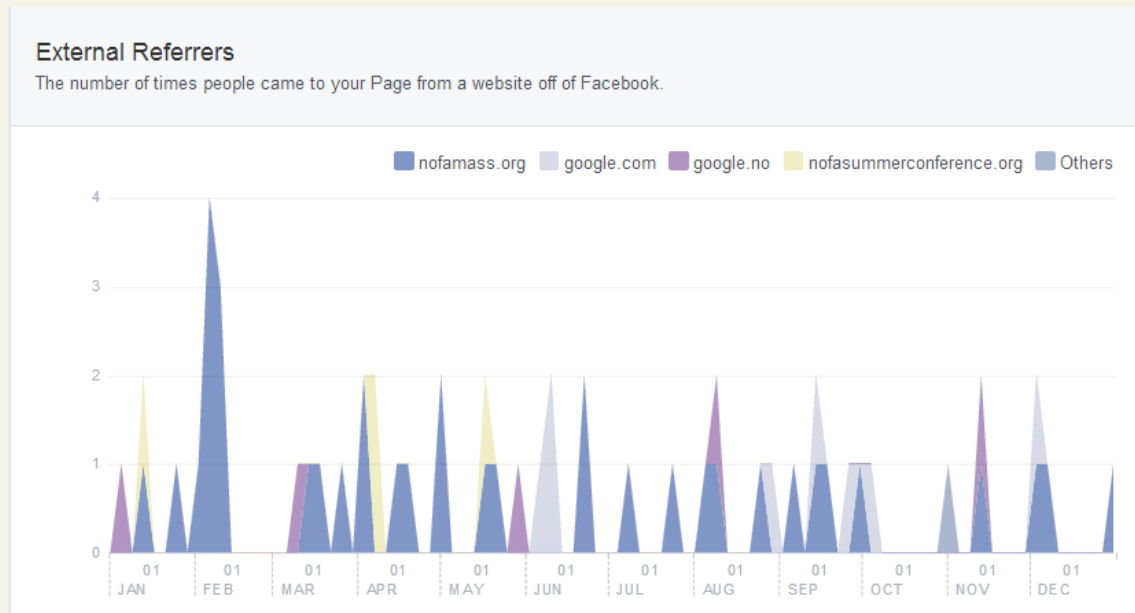


Figure 9: External Referrers

The results of this analysis show the NOFA/Mass website, nofamass.org, is the main external website for people to come to the NOFA/Mass Facebook page. Google.com is the common search engine and google.no is the Norwegian version of google.com. Presumably, the visitors who were referred to NOFA/Mass' web page using google.no are located in Norway. However, with the tools which we have available, we were not able to confirm this. The NOFA/Mass summer conference web page, Nofasummerconference.org, also serves as means to get people to NOFA/Mass Facebook page. The "others" category contains several miscellaneous websites that referred internet users to the NOFA/Mass Facebook Page.

4.2.4 Fans

People who click the "Like" button on a Facebook page become "fans" of that page. Analyzing the Fans can help NOFA/Mass know its fans better in order to more effectively reach out to it's

community members. From this matrix, we can see the percentage of male and female fans, the fans' ages, and where they are from.



Figure 10: Facebook Page Fans Statistics

As can be seen in Figure 10, we found the majority of NOFA/Mass fans are women, and majority of fans' ages are in the range of 35-44. NOFA/Mass has more fans in United States than any other country. Within the United States, the cities of Boston and Worcester have the most fans. The majority of people who like NOFA/Mass Facebook Page speak English.

4.3 Preparations for Production of the Digital Narratives

In the cases each of the three video formats that we produced, Jack Kittredge, our *Highlight Video* subject, and Linda Hoffman, our *How-To* and *Profile* subject, each had

something in mind that they were interested in saying on film – Jack on GMO Policy, Linda on her work at her orchard and her method of pruning apple trees.

The process of preparing the interviewees for the production of digital narratives helped us understand what steps are important to help engender subject interest and involvement. The first part of our process for deciding on interested subjects for digital narratives relied on a database of current NOFA members provided by our project sponsor. From these, our sponsor recommended certain locations or people whom she thought could have stories to tell that would be interesting to the public in outreach material. Our team would choose from these possibilities for the production of our three narrative formats: *The Highlight, How-To, and Profile*.

After identifying an initial pool of possible interviewees/subjects for the production of our digital narratives, the next step for our team was to reach out and try to evaluate the interest of any of these people in taking part in our project. In the initial messages in which we contacted potential video subjects, we introduced ourselves and the purpose of our project. If the subject we contacted responded with an initial showing of interest, our team followed up with a link to a preexisting video example produced by a third party (Cornell Small Farms) that provided a rough preview of the video format that we intended to produce. Depending on how our potential subject responded after viewing the idea that we had in mind, it would be time to begin planning for the actual filming phase.

4.4 OUR EXPERIENCE AT THE NOFA/MASS WINTER CONFERENCE

The production of a video that is dependent on interviewing conference participants can run into difficulties that are not foreseeable prior to filming. In the case of our attempt at producing a montage of interviews from the NOFA 2014 Winter Conference, this is what happened. The primary roadblock to acquiring the amount of footage we desired was the out-of-the way location of our project presentation booth. The placement of the WPI booth was outside of the main exhibition halls, which resulted in a smaller flow of traffic and visitors. Additionally, because of the nature of our team's project in particular, we did not have much in the way of visually attractive material to draw the attention of viewers. We used an iPad with preloaded video demonstrations but this method was not very successful in attracting attention to our project booth. In an attempt to overcome the

disadvantages resulting from the location of our project booth as well as the lack of display materials for our individual project, we decided to stroll about the conference hall and ask vendors the question “What does NOFA mean to you?” This effort was met with some limited success, as it resulted in one on-camera interview. In other instances, however, vendors were either not members of NOFA (and thus the question was not relevant) or else they were not interested in participating. Despite these setbacks at the conference itself, our team was able to put together a short video montage that provides an overview of the event.



Figure 11: An interview with a NOFA Winter Conference Attendee

4.5 PRODUCTION OF THE HIGHLIGHT VIDEO

The first digital story created by our team was the *Highlight* video, a narrative focused on how NOFA/Mass is working to support change to current policy on the labeling of genetically modified

organisms. With the eventual distribution of this video over the web, it is our intention that NOFA/Mass can use this digital story to explain the history, applications, and potential adverse effects of GMOs, and NOFA/Mass' interest in explicit labeling of GMO foods. We planned the *Highlight* video to be around five minutes in length which we decided would be sufficient to provide the key information on GMO policy and still maintain the attention of the viewer. In addition to the material conveyed through the interview itself, we also supplemented our video with information panels at certain locations in the video to emphasize key points Jack was making in the video.

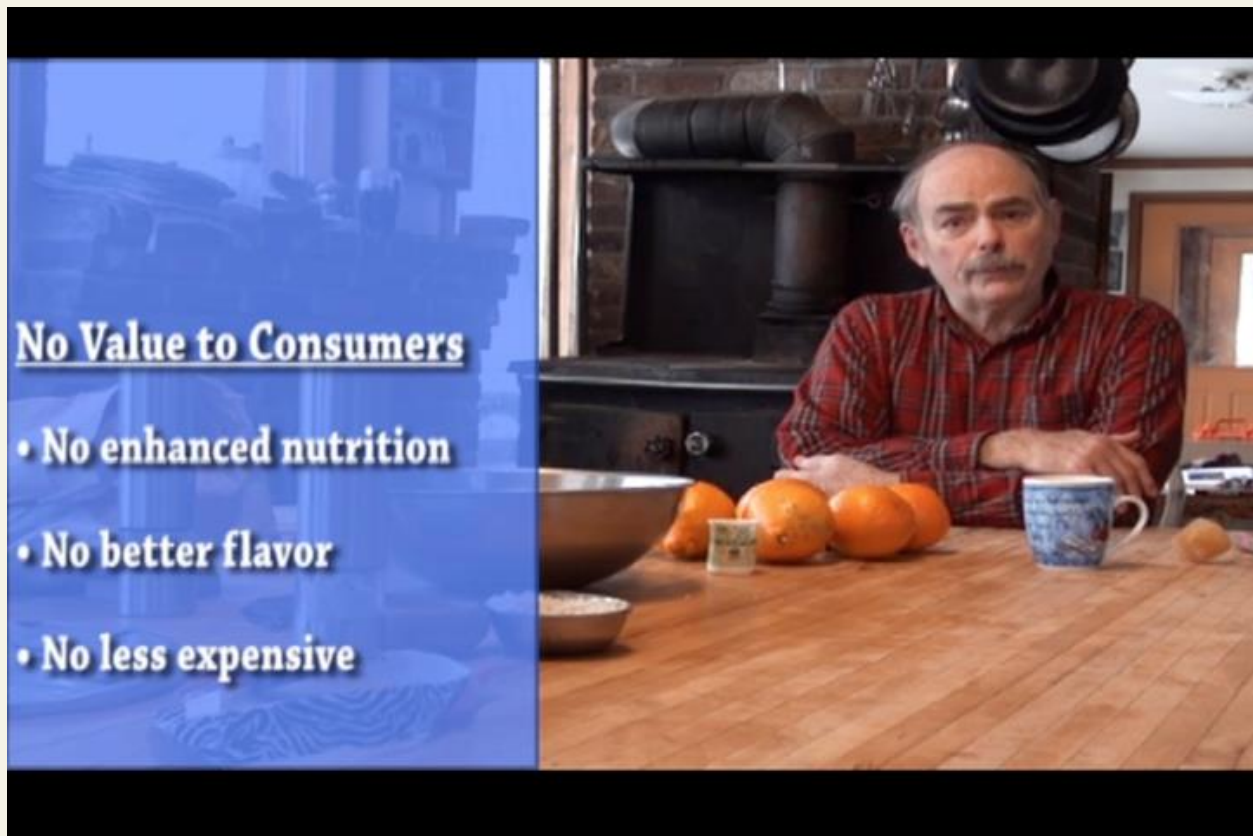


Figure 12: Jack Kittredge speaking on GMO policy

In our production of the *Highlight* video on GMO policies, we had our first experience using equipment rented from WPI's Academic Technology Center to record footage for our production. The equipment we rented consisted of a Sony Handycam, a Sony Bluetooth wireless microphone, and a tripod. Our team travelled out to the Many Hands Organic Farm in Barre, MA to film Jack Kittredge, the NOFA/Mass Policy Director, who provided background information on GMO crops and then discussed

the NOFA/Mass policy with respect to labeling GMO foods. One of the first issues we ran into while filming was the lack of greenery to record. Considering our timing on visiting Barre (January 26), the ground was covered with snow and thus there was not much vegetation to capture in any of our video footage. Our team resolved this by obtaining stock footage of crops and other video content released under Creative Commons licenses and incorporating these into our highlight video where appropriate. A secondary problem we encountered during the filming phase took the form of distractions or ambient sound by individuals other than the subjects of the video. This was caused either by a third party standing in too close a vicinity and holding a conversation, or even coming into the frame of the camera itself. These problems were resolved by re-filming when there was too much background sound, and in the second case, by cropping the video in post-production to remove unintended subjects from the footage where possible. In the production of the highlight video, we re-recorded our GMO overview with Jack, as the first time we had neglected to use the external microphone attachment on the camera. We resolved this with a second take. In regards to the variety of footage used in the video, the additional clips from the *“Who Shall Reap?”* documentary were used primarily to cover up cuts between clips in the footage from Jack’s interview. As NOFA is an organization based on farming, it made sense to use acoustic, “natural” sounding music as a soundtrack for the video.

4.6 PRODUCTION OF THE PROFILE VIDEO

In our production of the *Profile* video, Linda Hoffman of The Old Frog Pond Farm & Studio describes to the viewer the path she followed in becoming involved in organic farming and eventually becoming an orchardist. Her story begins in an unexpected way, with Linda telling the viewer that she is a sculptor who has been interested in the disappearance of farmland, and who has been using agricultural tools in her works. She tells us that she had not intended to be a farmer or an orchardist, though she relates that when she came to the area, she was moved by the abandoned orchard overgrown with poison ivy and brambles and determined to make the orchard productive again – and to do it organically. When pruning the trees she realized there were perhaps 100 dead trees that had to be removed. Through the help of a neighbor who had experience with apple orchards, she began to improve the condition of the trees. Over the years she has been fertilizing the trees and making them healthier, and this has made them much better able to resist disease. She is proud to have gone beyond the basic “organic” growing principles to produce “nutrient dense” apples – so that the apples they grow are very healthy for people to eat. Through her story, viewers who have no prior experience in organic

apple growing but who may have an interest in learning about this topic may be inspired to follow a similar path after hearing Linda’s observations that the barriers to growing apples organically are not insurmountable. The structure of the *Profile* narrative was distinct from that of the *Highlight* video or the *How-To*, as it was focused on providing information solely about the interview subject; Linda Hoffman in this case. We did not need to use “B-roll footage” (supplemental footage) that could distract the viewer from the information being presented during her interview. For the actual filming phase, Linda chose to sit in a chair by the window of her house while we recorded a short narrative that she had planned out. In her narrative, she explained how she was introduced to organic farming and how she became an orchardist.



Figure 13: Linda Hoffman speaks about becoming an organic orchardist

4.7 PRODUCTION OF THE HOW-TO VIDEO

In contrast to the aims of the previous digital stories we filmed for our project, the *How-To* video is aimed more towards individuals who have already begun to involve themselves in organic farming, specifically the growing of apples in this case. Our team followed Linda into the snowy orchard to film her technique as she pruned branches from the apple trees. As we filmed, she described aspects of her pruning techniques. She begins the subject of pruning by stating that she is a sculptor, and so that for her, pruning is like sculpting. Her approach to pruning is “removing to reveal” – to reveal the structure of the tree. In her view the overall impression of the tree is that it is lifting up its branches, and she feels she will have made good choices in pruning branches if the tree appears more open. Consistent with this view, she relates an old saying that one “should be able to throw a cat through a tree.”



Figure 14: Linda Hoffman demonstrates pruning techniques for apple trees

By the time we worked to produce our team's *How-To* video at The Old Frog Pond Farm & Studio with Linda Hoffman, we had learned from our experiences at previous filming venues enough to foresee and prevent any of the problems we had previously encountered from arising. This time around, our team was equipped with a Sony Handycam PJ580 capable of recording 1920 x 1080 pixels at 60 frames per second. This was a significant quality increase over our previous *highlight* video production, which was limited to 30 FPS at 720 x 480 resolution. As we had in the previous round of filming, we used a Sony Bluetooth microphone to capture audio from the speaker directly while filming from a short distance. Overall, the sound quality turned out well in this production, but some of the audio is muffled by the frequent interference of wind noise. Had we brought a wind filter for the microphone this may have been avoidable, but some EQ filtering on the video's audio track seems to have helped to a degree. In Final Cut Pro we removed some of the lower frequencies from the interview audio to reduce the wind noise. In terms of the video content, we cut additional footage that did not contain any distinctive pruning procedures or instructions from Linda.

4.8 **THE STRUCTURE OF OUR DIGITAL NARRATIVES**

The digital narratives that we produced were composed of three main parts: the introduction, body, and ending. In all the narratives that we have created for our project, we attempted to follow this format for the flow of the videos. In the case of the Highlight video as well as the Profile and How-To Videos, this can be seen in the intro with a title (sometimes a shot that establishes the location of the film), the main content, and a closing scene and/or credits over video footage. In particular, in the GMO highlight video, the use of the slow zoom on the sign at the beginning and the chicken footage serve to provide a setting for the video. The interview footage with Jack Kittredge on GMOs constitutes the main body of the digital story and provides the viewer with information, and the scene of the "crew" walking away from the camera resolves the narrative. The choices we made for edits in the film production were dependent on the amount of footage that we had captured on location. In the cases of the highlight and how-to videos, we had a larger number of scenes filmed on location which gave us more flexibility in editing and constructing the finished video. All of the videos are viewable at this project YouTube channel: <https://www.youtube.com/channel/UCGvA4ihCA4Gr7i49wWQWPoA/videos>

5 CONCLUSION AND RECOMMENDATIONS

The intent of our project has been to assist NOFA/Mass in increasing the effectiveness of its social media outreach objectives, both through analysis of certain of its current outreach practices and through the development of digital stories for NOFA/Mass to use in their outreach efforts. Our analysis of current outreach practices focused on statistics associated with NOFA/Mass' Facebook page, addressing Facebook user interest in NOFA-related content and events in the calendar year 2013. Our filming and production of three digital stories, based on interviews with NOFA/Mass members, was intended to make use of this increasingly popular medium to promote different aspects of NOFA/Mass' outreach objectives. Throughout our project we were able to work closely with NOFA/Mass' Public Relations Coordinator, Nicole Belanger, who advised us on NOFA/Mass' outreach objectives and provided feedback along the way.

5.1 OBSERVATIONS FROM FACEBOOK DATA

The statistical data shows that during the Winter Conference and the Soil and Nutrition Conference, more people went to NOFA/Mass Facebook Page and actively liked the page. We recommend that NOFA/Mass be extra active in posting on their Facebook page during this time period.

Since the most popular post is the protective cases of Caddisfly larvae and the second most popular post is the debonair carrot, we recommend NOFA/Mass post use humorous pictures and attractive images to attract more fans. According to the results of popular topics for the information category, NOFA/Mass could hold more workshop events on the topics of raw milk dairy, the Bee School, and mushroom cultivation. Events about the need for restoration agriculture and renewing gardens would be an effective way to engage more people. Based on the Post Click Percentage data, we found that many fans would like to have additional information about local organic food and products as well additional Beginning Farmer Mentoring Programs. NOFA/Mass could post more material to spread information related to those two topics and increase engagement with fans. Posts regarding GMO policy are very popular. We believe our video about GMOs could be a good way to help NOFA/Mass attract more fans and prompt individuals to take action in support of NOFA's policy on GMO labeling.

For the external referrers section, we can see there are not that many people who visit the NOFA/Mass Facebook page from other websites. We suggest that NOFA/Mass consider putting paid advertisements to spread their Facebook Page more widely.

According to the demographic results for the NOFA/Mass fans, we found the most of NOFA/Mass fans are women. In order to acquire more fans, NOFA/Mass could post some posts and hold some events targeting men. Because most fans are from Boston and Worcester, NOFA/Mass could consider holding more primary events, such as Winter Conference and Summer Conference in other Massachusetts towns, so that more people from other cities can learn more about NOFA/Mass near their homes.

5.2 **OBSERVATIONS ON THE PRODUCTION AND IMPACT OF OUR DIGITAL NARRATIVES**

Of the three video types that we produced, it was particularly important to choose a qualified subject matter expert as the speaker for the *Highlight* video, as this video was developed to promote one of NOFA/Mass' policy initiatives. In general, it will be important to identify qualified speakers for any *highlight* videos that explain NOFA/Mass' ongoing programs. On the topic of genetically modified organisms (GMOs) we were confident prior to the filming that Jack Kittredge, NOFA/Mass's *Policy Director*, would be well-prepared to serve as a speaker, in part because he had recently presented a session on the same topic at the NOFA Winter Conference.

With the *Profile* video, it is important to select someone to interview who has an engaging story they would like to share with their audience. Though we had not known this initially we learned that Linda Hoffman was trained as a sculptor and had no background in farming before she became interested in growing apples organically. Her experience should serve as an inspiration to those considering organic farming, as she was able to learn how to get started primarily with the help of friends and interested parties. As a result, Linda's *Profile Video* has the benefit of allowing viewers to understand that lack of agricultural experience need not be a barrier to becoming involved in organic farming.

Our *How-To* video depends on the interviewee's knowledge of gained through experience. In the *How-To* we produced at the Old Frog Pond Farm & Studio, Linda Hoffman speaks to the topic of pruning apple trees from the perspective of a sculptor, which was an apt framework within which to describe the pruning process.

5.3 RECOMMENDATIONS AND CONSIDERATIONS FOR FUTURE WORK

If future IQP teams work to produce similar content, we offer some recommendations based on our experience on what has worked well for us or how certain aspects of the filming process could be improved. For the development of future video productions, the selection of speakers that meet the needs of the narrative is essential. One of the most direct ways to achieve this is to select the video topic first, and then construct the narrative around a topic the speaker is interested in. Considering our experience working at the Old Frog Pond Farm & Studio, we recommend that in investigating potential speakers for a how-to video, as well as a profile video, the production team would find it useful to ask the potential interviewee about their interests and prior experiences, especially those not directly related to agriculture, as these are likely to enhance their digital story.

In terms of the filming process itself, there are some specific points to keep in mind. One of these is to keep possibly distracting elements out of the video. Sometimes, depending on the setting, distractions can be unavoidable. In these circumstances the problem can be somewhat rectified by making edits that cover up or crop out the distraction in a video editor. However, it is best to foresee these problems before filming and make sure that your frame is clear of everything except for what you desire to film. Additionally, it is ideal to bring two of the same model cameras to the filming location so that shots from two angles can be filmed simultaneously and cuts from one camera to another can be made seamlessly.

Based on our experience in producing the three types of digital stories, and working with two different interview subjects for these films, we believe that there is ample opportunity for future teams to produce additional digital stories in support of NOFA/Mass' social media outreach program. Our belief is based in part on the positive experiences we had in working with both of our interview subjects, and the expectation that among NOFA/Mass members there are likely to be numerous other informed and interesting interview subjects with stories waiting to be told.

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7 APPENDICES

Appendix A: List of Editing Software and Recording Equipment:

- Final Cut Pro
- Adobe Premiere Pro CS6
- iMovie for iOS 7
- ClipWrap
- Sony Handycam HDR-500V
- Sony Handycam PJ580
- Sony ECM-HW2 - Bluetooth Wireless Microphone
- Tripod