Abstract: Social networking is very popular among youth as Web sites on which to "hang out" and network with friends. With the many concerns about privacy and appropriateness of what youth do on these sites, it is important to understand how 4-H members are representing themselves and 4-H on the pages they post. It is also important to understand how educators are engaging and promoting programs on such sites. The study reported here used content analysis to determine what 4-H and Extension pages and groups on these sites look like and what they contain. Recommendations are made for researchers and educators.

Introduction

Youth no longer just "hang out" at the mall, the bowling alley, or the fair. Compared to generations past, this group of millennial youth knows how to network with their friends better than ever. Whether it is staying in touch with the latest gossip or sharing their current 4-H project, these youth are accustomed to using new technology to stay connected with their social networks all year long.

The multitude of new social networking Web sites have changed the way individuals communicate and form relationships (Haythornthwaite, 2005). These social networks allow individuals to create a personal profile and form connections with other individuals with whom they can relate and share current and future experiences. Teenagers have ranked such sites as one of their preferred methods of communication, along with cell phones and Instant Messenger (Lenhart, Madden, Macgill, & Smith, 2007), making them a great way to reach this audience with information. A recent Pew study noted that 33% of youth surveyed create pages on networking sites for organizations or groups to which they belong (Lenhart et al., 2007).
Organizations and companies have also been adopting social networking into their communication plans as a way to expand their network and get more youth involved in their causes or to buy their products. For example, in 2007, the Human Society kicked off its yearly campaign to save Canadian seals with a persona on Myspace (Rigby, 2008). "Sunny the Seal" used his profile to bring attention to what was happening to these seals during hunting season, and by the end of the campaign he had 2,000 friends and 14,000 unique visitors to his page. The organization's ProtectSeals.org Web site even increased traffic by 50% (Ribgy, 2008).

With success stories of use in non-profit and political environments, many communicators and educators are taking note and exploring such sites as a way to reach youth. One such organization is the Cooperative Extension Service. With the development of 4-H Access, and agents and youth developing site personas, groups, and networks on popular sites like Facebook and Myspace, it is important to understand how youth are using this technology. Do they want to share organization information in their social network? Are such 4-H-related pages out there, and are they popular? Who is starting the page: youth or educators? Moreover, while many parents fear online predators, how are youth representing themselves and the 4-H and Extension organization?

While some 4-H camps have instituted guidelines for proper usage of these sites by their staff (Bovitz, 2007) and some educators have begun working with youth on protecting themselves online, usage of these sites is still new and evolving. The popular media portray youth giving out multitudes of personal information on their pages, but recent studies show that these campaigns by youth educators and organizations may be making an impact (Hinduja & Patchin, 2008).

Hinduja and Patchin (2008) did a content analysis of youth Myspace profiles and found that only 8% gave a full name and that 0.3% gave out a phone number. They noted that 40% gave out their first name only and that 57% posted a profile picture. In 2007, Bovitz warned in the Journal of Extension that beyond possibly giving too much information that can be used to track them down, youth are posting provocative pictures and inappropriate comments, which can make them targets for online predators. Hinduja and Patchin's study of 1,423 teen profiles also noted that 39% of profiles posted photos of themselves in their bathing suit or underwear and that 18% indicated drinking or other adult behaviors. Many teens post such information, sometimes falsely, to attract peer approval and attention, and to show maturity (Hinduja & Patchin, 2008). In fact, 46% say they give at least some false information in their profile (Lenhart & Madden, 2007).

Privacy online is a big concern for many parents and educators. Lenhart and Madden (2007) found in a Pew Internet study that 66% of youth say their profile is limited access, while Hinduja and his colleague (2008) found 40% were set to private. In another Pew Internet study, 43% of teens indicated that a stranger has engaged them online, and 21% said that stranger was looking for more information about them (Lenhart & Madden, 2007). Of these teens, 31% also indicated having friends in their social network they have never met.

**Purpose/Objectives**

While many media outlets and educators discuss the potential harm lurking around the corner of every social networking site (Lenhart & Madden, 2007), it is important that individuals working with youth are aware of how they are currently using these sites. As Bovitz (2007) indicated, Extension must be communicating on social networks where many youth are, but educators must also be monitoring such sites for how the pages represent 4-H and Extension. How are teens and pre-teens promoting and discussing 4-H and Extension online? Are they? How formal are the pages on social networking sites related to 4-H and Extension, and are their agents and educators posting such pages?
This study reported here aimed to answer the following research questions.

1. Are 4-H and Extension present on popular social networking sites?

2. How are youth using popular social networking sites to share information about 4-H and Extension?

3. How formal are the pages discussing 4-H and Extension on popular social networking sites?

**Methods**

Content analysis methodology was used to analyze the current usage of social networking sites by 4-H and Extension. This methodology is "the systematic assignment of communication content to categories according to rules, and the analysis of relationships involving these categories using statistical method" (Riffe, Lacy, & Fico, 1998, p.2). Researchers have successfully used this technique to analyze other Web 2.0 communication tools (Lin & Jeffers, 2001; Rhoades & Ellis, 2008; Trammell & Keshelashvili, 2005).

The sample for the study was selected through a snowballing technique. Researchers used the search functions in Facebook and Myspace to search for "Extension" and "4-H." This search yielded 52 groups or individuals. Both sites have links to related pages and individuals once one entered the site. Researchers used this as a snowball technique to locate as many possible pages related to the search terms. A total of 85 pages were thus identified.

Two researchers then analyzed each page for their privacy level, the formality, the purpose, if it was youth or adult run, the level of personal information given out, and the features included on the page. Coder training was conducted with 10% of the sample (n=9) to reach an inter-coder Holsti's reliability (North, Holsti, Zaninovich, & Zinnes, 1963) of .89. Coders then divided the sample and collected data over a two-week period. Data was then entered into SPSS© for analysis.

**Results**

The first research question aimed to determine the existence of 4-H and Extension on two popular social networking sites. A total of 85 sites were identified on Myspace and Facebook to contain information about Extension or 4-H related activities from around the United States. The majority was on Facebook (58%, n=50), with 85.9% (n=73) of the sites being a group and 8.2% (n=7) being a person or persona (e.g., one persona included Clover, a fictional person made up from the 4-H logo). It was determined that the majority of the sites focused on 4-H (96.5%, n=82) compared to Extension in general (3.5%, n=3). Pages ranged from 4-H clubs, county 4-H offices, fair boards, to individuals talking about their individual projects. The number of members/friends was noted for all the pages. The mean number of friends/members was 244.47, with a minimum of 1 to a maximum of 12,817.

The presence and usage of social networking site features were analyzed. The majority (65.9%, n=56) capitalized on posting images, while only 5.9% (n=5) posted video to their page. Similarly, only 1.2% (n=1) posted audio to their page. In terms of communicating, 5.9% (n=5) took advantage of the blog feature, 47.1% (n=40) used the wall feature, and 62.4% (n=53) used the discussion board feature. It was found that 16.5% (n=14) of the pages had links to 4-H clubs, 11.8% (n=10) had links to Extension sites, and 1.2% (n=1) had links to another agricultural club or organization (See Table 1).
Table 1.
Features Used on 4-H and Extension pages on Myspace and Facebook

<table>
<thead>
<tr>
<th>Feature</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Images</td>
<td>56</td>
<td>65.9</td>
</tr>
<tr>
<td>Used the Discussion Board</td>
<td>53</td>
<td>62.4</td>
</tr>
<tr>
<td>Used the Wall</td>
<td>40</td>
<td>47.1</td>
</tr>
<tr>
<td>Links to 4-H Clubs</td>
<td>14</td>
<td>16.5</td>
</tr>
<tr>
<td>Links to Extension Sites</td>
<td>10</td>
<td>11.8</td>
</tr>
<tr>
<td>Post Video</td>
<td>5</td>
<td>5.9</td>
</tr>
<tr>
<td>Used the Blog</td>
<td>5</td>
<td>5.9</td>
</tr>
<tr>
<td>Post Audio</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Links to Other Agriculture Clubs or Organizations</td>
<td>1</td>
<td>1.2</td>
</tr>
</tbody>
</table>

The second research question was to describe the usage of the site to share information about 4-H and Extension. Many pages had various purposes, but each purpose was counted for analysis if it had substantial information and was not just one entry. Camp information was included on 30.6% (n=26) of the pages, followed by individual club information (16.5%, n=14), alumni information (16.5%, n=14), county information (12.9% n=11), fair information (12.9%, n=11), state information (11.8%, n=10), junior fair board information (8.2%, n=7), and collegiate club information (2.4%, n=2) (Table 2).

Table 2.
Information focus on 4-H and Extension pages on Myspace and Facebook*

<table>
<thead>
<tr>
<th>Focus</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camp</td>
<td>26</td>
<td>30.6</td>
</tr>
<tr>
<td>Individual Club</td>
<td>14</td>
<td>16.5</td>
</tr>
<tr>
<td>Alumni</td>
<td>14</td>
<td>16.5</td>
</tr>
<tr>
<td>County</td>
<td>11</td>
<td>12.9</td>
</tr>
<tr>
<td>Fair</td>
<td>11</td>
<td>12.9</td>
</tr>
<tr>
<td>State</td>
<td>10</td>
<td>11.8</td>
</tr>
<tr>
<td>Jr Fair Board</td>
<td>7</td>
<td>8.2</td>
</tr>
<tr>
<td>Collegiate Club</td>
<td>2</td>
<td>2.4</td>
</tr>
</tbody>
</table>

*Totals do not equal 85 because some pages had more than one main purpose.
Beyond what the main focus of the site was, it was noted what the page was used for. Only 5.9% (n=5) used the page to give meeting information, while 41.2% (n=35) gave announcements about what was happening. Some (5.9%, n=5) used space to describe their 4-H project or give educational information on agriculture (1.2%, n=1). Other pages included information on fair contests, entertainment, and history. No page, including those done by educators, included educational information on how to use social networking sites safely.

The final research question aimed to discover the formality and structure of pages discussing 4-H and Extension on social networking sites. Based on provided profile information, it was determined that 29.4% (n=25) of the pages were developed or run by adults involved with Extension, while 52.9% (n=45) of the pages were run by youth. The other 15 pages could not be determined based on provided information. Researchers looked at content, owner, and information provided to determine the formality of the page. It was noted that 71.8% (n=61) were not official pages developed by an Extension professional or 4-H leader. Two sites could not be determined, leaving 25.9% (n=22) as official pages. One page in fact had a disclaimer that it was not related to 4-H officially. While not coded for, it was noted in the analysis that many sites, even those that were official, had members who had questionable profile images and who posted inappropriate materials on the wall, including vulgar language.

Last, it was determined how safe these individuals were about posting information on these sites. The majority (95.3%, n=81) did not have their profile set to private, and 78.8% (n=67) did not post a personal email address. While only 25.9% (n=22) of the pages had a personal photo of themselves on their profile, 58.8 (n=50) gave their full name. Interests and hobbies (4.7%, n=4) were not indicated very often, but profiles did tend to give information on their location (85.9%, n=73). Other personal information found minimally included favorite books, phone number (n=1), and club officers.

**Conclusion and Implications**

It must be noted that the study reported here was limited in that it only looked at a sample of the sites out there and that these sites are changing daily. However, based on the findings of the study, it appears that youth are using social networking to share information about their clubs and their 4-H projects. Whether it is through a group or a persona, this is a popular tactic to share information for this age group.

It is also important to note that only a small number of educators have developed pages for youth to network. It is recommended that educators start such pages in order to encourage appropriate content and correct information on events. With 79% of these not being supported by someone in Extension, educators must be engaged and monitor information about their specific programs. Questionable comments and vulgar language were found on these sites. Discussion amongst Extension educators is need as to whether it is part of their job to monitor, or step in to stop, such content if it is associated (unofficially) with Extension.

While this may seem to be an additional task added to an already busy schedule, using such networks can be integrated seamlessly into current communication methods. Educators can also work with talented youth leaders to help integrate these networks into regular business and do such monitoring. One might argue that just the mere “friending” of an educator in groups and with youth profiles might help to teach youth what is appropriate, all while ensuring those who access the page will leave with a positive image of Extension and 4-H.

For the pages analyzed in the study, youth are capitalizing on the features offered on these sites to communicate and share with each other. These pages are a great way for youth and educators to share photos and experiences. They also offer a way to possibly recruit more youth who are in members’ networks. By using the many applications on these sites to share the positive experiences through Extension and 4-H,
friends of current page members will be exposed to and possibly intrigued by the organization.

Several non-profit organizations are using such social networks to generate more members and volunteers (Rigby, 2008). Educators should explore, and delve into these networks to gather more community resources. Sites like 4-H Access will also help in this endeavor, but mainstream social networking sites are also important in gathering new youth and supporters who may not have previously known about the programs. In that same vein, club volunteers can work with youth on currently established pages to encourage them to add links to county and state pages and post photos to allow for more engagement.

Several pages/groups shared 4-H camp information. This is a positive way to keep youth involved year round and to help them form networks they can continue at other events. Lenhart & Madden (2007) noted that 82% of youth use these sites to stay in touch with the friends they do not see on a regular basis. By using sites like this, youth can keep in touch with friends from across a county or across the state who attend the same camp or have the same project. Educators should work with youth on developing groups around their camp, or project, as a peer support network. Youth counselors or leaders could start and monitor such groups. Further research should also look at youth's opinions of such networks and their benefits to 4-H and to staying in touch with friends.

Contrary to many previous studies and media reports, these youth were diligent about protecting themselves online. Very little inappropriate information was provided, like addresses and phone numbers. However, a total of 95% did not set their profile/group to private access, and 58% gave a full name. While most youth are getting the message to be safe in social networking environments, it is important to continue to work with youth on what is appropriate to post on these social networking sites. Research should be conducted with such youth to see what draws them to post such things and to see if they are aware of the consequences.

It is recommended that county and state educators become familiar with these social networking sites to not only see what youth in their area are doing, but to also serve as another way to connect to them. While some educators may find it is not the right communication tool in their area, they may be surprised to find what youth in their county are posting. Future research should be conducted to explore educators' opinions and uses of such sites in their programming to help develop best practices. Last, repeat studies are needed to track trends and validate these findings as these sites are changing daily.

Acknowledgments

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References


