Social Media in Optometric Education

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Abstract
Today's students like to stay connected with friends via social networking sites. We have investigated the use of social media in optometric education. A Facebook page was created for two optometric courses to provide students with additional course resources and the ability to interact with the instructor and other students outside of the classroom. We conducted a survey to assess student attitudes regarding this new educational resource. Students' opinions regarding the usefulness of Facebook were very positive. Educators should consider the addition of social networking to their course resources to enhance the educational experiences of today's students.

Key Words: optometric education, social media, Millennial generation, technology

Introduction
One of our challenges as optometric educators is choosing educational resources and delivery methods that are effective for our students. To choose appropriate educational tools, we should learn more about the characteristics of the current generation of optometry students. Most of us would probably agree that, with access to computers, cellular phones and other digital devices, optometry students today are more technologically advanced than previous generations. Today's optometry students are part of what is known as the Millennial generation (those born between 1982 and 2002). Millennial students are characterized as tech-savvy, multitasking, and socially conscious. Another characteristic of this generation is that they have grown up in a digital environment. They do not remember a time before cell phones and computers and are constantly "connected." Part of this connectivity involves participating in social networks. Many of our students spend a significant amount of time on their Facebook pages. According to an article on the Web, in February 2010, the average user spends 55 minutes a day on Facebook.1 A recent survey found that college students spend an average of three hours a day on Facebook.2 Social networks have been described as "interactive websites designed to build online communities for individuals that have something in common."3 Social networking sites allow users to share files, chat and maintain a blog or discussion. These sites include the ability to set up groups and pages that can be private or public. Users need a valid e-mail address to set up an account, and no fees are associated with creating an account. Access to sites like Facebook and MySpace is free and no special software is required to use these sites. In addition, Facebook has applications (apps) for smartphones, iPods and iPads. This makes these social network sites very accessible.

Regardless of how you feel about the presence of social media in your students' lives, social networking services, such as Facebook, MySpace and Linke-
They noted that with the numerous ways to access social media (laptops, smartphones, tablets and netbooks) and the amount of time students spend on social networking platforms, medical educators have an opportunity to use social media to share content with students both inside and outside of the classroom. Australian medical educators used Facebook Groups to encourage collaboration between student groups. They found that students preferred Facebook to the university’s online learning management system (LMS) even though the university’s system offered all of the features (group management, threaded discussion, file sharing and messaging) required to complete an assigned class project. In this case, students reported they found Facebook simpler and easier to use than the LMS. Pharmacy educators have reported success with utilizing Facebook with their courses. The report available, educators used Facebook Groups to provide a forum for out-of-class discussions. Students were required to participate in online discussions via a Facebook Group. Participation in the discussion was part of the students’ course grade. Students felt the course Facebook Group enhanced their experiences in the course.

We initiated a pilot study to examine student preferences between a course blog and a course Facebook page for exam preparation in the spring of 2010. A Facebook page was created for the Ophthalmic Optics II course to enhance student-teacher communications as the students prepared for their final exam in the course over a two-week period. Facebook is a Web site created to provide users with a medium in which to share personal information about their lives, including text updates, pictures and video. As a result, extensive networks of friends and family evolve as individuals search for and connect with family and friends. Businesses have also taken advantage of the wide use of Facebook to increase their marketing presence. In our pilot study, it was believed the Facebook page would allow real-time communications once the lectures for the semester were finished. During this same period, a separate course blog was also available. All course information, additional problem sets and reviews were posted to the Facebook page and were also available on the course blog. A survey was conducted via the Internet after the course ended to determine student attitudes toward the Facebook page and course blog. The response rate to the study survey was 42% with very favorable comments about the creation and maintenance of the page. The pilot study survey also found that the Facebook page was used slightly more than the blog page.

The purpose of this study was to examine student opinions on the usefulness of a course Facebook page to enhance student educational experiences in a traditional optometric course. Our desire was to repeat as well as elaborate on data collected during the pilot study to see if the favorable responses we received were not just an anomaly due to the newness of the concept. Also, we wanted to expose the students to the course Facebook page over a longer period of time (two semesters).

Methods
A Facebook page was created and maintained during two semesters for our Ophthalmic Optics courses. Facebook was chosen because of the high percentage of college students that already have a Facebook account. Facebook allows anyone with an account to set up a page, separate from their profile. While Facebook profiles can be made private, Facebook pages cannot be made private and are available to anyone with a Facebook account. Facebook pages allow account holders to become “fans” of the page, which allows them to post comments on the page and interact with other fans.

The course instructor made regular (at least weekly) postings of additional course resources on the Facebook page. These included lecture summaries, unit study guides, additional problems sets, links to relevant Internet resources and exam reviews. Because of Facebook’s ability to provide push notifications, students who were fans of the page received notification, via e-mail or their Facebook profile, when new information or resources were placed on the page. Students who were not fans of the
page could view all of the content but could not post comments and would not receive notifications of changes.

We solicited the students who had completed Ophthalmic Optics I and Ophthalmic Optics II to participate in an anonymous Internet-based survey. The survey met the requirements of the university’s Institutional Review Board. Participation in the survey was entirely voluntary and non-participation carried no penalties to course grade or exam scores. Several repeated questions from the original pilot study and some new questions developed for the current survey were asked of the new class of students.

Fifty-three of the 98 students (54%) enrolled in the courses responded to the 14-question survey. Questions included whether or not students had a Facebook account, were “fans” of the page, and how many times per week they accessed the Facebook page. In addition, the survey contained seven questions regarding their experiences with the Facebook page. (Table 1) These questions were answered using a standard Likert scale: “Strongly Agree” – “Agree” - “Neutral” - “Disagree” - “Strongly Disagree.”

**Results**

Of the 53 students who responded to the survey, 52 had Facebook accounts and 51 (96%) were “fans” of the Ophthalmic Optics page. Although we do not know how many of the 98 students enrolled in the class had Facebook accounts, 81 (83%) of the students became fans of the page. Students reported that they accessed the page an average of 3.4 times per week.

Table 1 presents the Likert questions asked in the survey along with the responses and the average response for each question. It is interesting to note that the combined percentage of respondents who “Agree” or “Strongly Agree” with the statements associated with usefulness (100%), enhanced course experience (98%), improved material understanding (98%), and was useful for exam preparation (100%) was at or above 98%.

It may have been because of the familiarity of using Facebook, but the vast majority felt the site was easy to navigate (95%) and very convenient to access (100%). Ninety-five percent of students who responded felt that being able to interact with classmates concerning course content was a valuable benefit of the page. Facebook privacy was less of a concern than anticipated by the authors. Only 10% agreed or strongly agreed with the statement concerning public viewing of content or comments.

Because students or instructors could make changes to the Facebook content and comments at any time, resulting in a notification to the fans of the page, we were concerned that the number of notifications would become distracting. Opinions about frequent page updates appear to be the most diverse survey comment. Seventy-two percent of survey responders felt that the frequency of updates was not distracting.

When the students had the opportunity to comment on the advantages and disadvantages of the use of Facebook to augment the didactic course, there was a positive theme to the responses. We

![Table 1](image-url)
have paraphrased the most common comments as shown in Table 2.

Discussion

Approximately 80% (81 out of 98) of students enrolled in the course became fans of the page. Students did not need to be fans to view the materials on the page, but they would not receive the “push” notifications provided to fans when new materials were posted, and it was their responsibility to monitor for updates. Students who were not fans were not able to post comments or questions on the page. Students reported they accessed the page an average of 3.4 times per week; however, activity on the page increased dramatically on the days immediately before the exams. This was the case for both semesters. We had observed the same behavior on course blogs. Many of the students’ comments on the advantages of the Facebook page related to the ability to obtain “last minute” help prior to an exam either from the course instructor or other students. The page allowed real-time communications between students and the instructor and between students and classmates. In addition, the Facebook page promoted collaboration between students related to learning and studying. Some of our students were concerned that other students could post erroneous information on the site. Comments and posts should be monitored to minimize this, and corrections should be made if blatant errors are detected. Although students may see this as a disadvantage, it may be an opportunity for faculty to clear up misconceptions about course material. In addition, some students reported that the posting of redundant questions or comments distracted them.

An instructor must be aware that students who do not have Facebook accounts will simply not have access to this resource. Students may not be interested in joining Facebook or may think there are fees associated with joining the site. Some students expressed concerns about privacy; however, with the proper privacy settings, the students’ personal information cannot be viewed except by personally approved “friends.” Faculty considering a Facebook course page should be aware that pages, unlike groups, cannot be made private. Therefore, anyone with a Facebook account can access the page. This may limit the content of the page, and anyone making posts to the page should be aware of the public nature of the content. In this case, a Facebook page was chosen over a Facebook Group because the group option does not push content to group members’ walls. Part of the attraction of using Facebook is that it integrates with the students’ daily Facebook activity and this seems to work better with a Facebook page.

One caution for instructors considering the use of social networks in a course where students will use the Web site for exam preparation is to establish the instructor’s role in participation in discussion immediately prior to an exam. Students should be aware of the cutoff point for new materials and discussions. The same applies to using e-mail to answer questions prior to an exam. In our case, the instructor was available up to at least 11 p.m. the night before exams. The response to this from students was overwhelmingly positive. Many students acknowledged that this was beyond their expectations and they greatly appreciated the instructor’s availability at the “last minute.” Today’s students want their instructors available at their convenience, and instructors considering venturing into social networking as part of their course delivery should be aware of students’ expectations and set the rules early in the process. As previously noted, the primary obstacle to integration of new technology into higher education is reluctance on the part of faculty. Students have reported that they like the use of social networking sites, especially Facebook, in the delivery of course materials.

Conclusion

Because today’s college students spend a considerable amount of time using social networks, we evaluated student acceptance of a course Facebook page for two of our traditional optometry courses. The course social network page had many advantages over traditional e-mail and course blogs. It allowed for more interactivity and collaboration between instructors and students. Students benefited from their classmates’ questions and understanding of the course materials. It did require a little more monitoring of class activities outside the didactic setting, but the improved student attitudes and more frequent student engagement in the content of the course were the rewards.

Our work, along with the work of other educators in higher education, demonstrates that students like using social media, particularly Facebook, to receive course information and collaborate with faculty and other students outside of the classroom. Based on our students’ acceptance of educational use of social media we are encouraged to expand the use of Facebook to include other courses in the optometry curriculum. Since Facebook is already a part of our students’ daily lives, we are likely to experience greater acceptance than with other forms of educational communication. We feel caution should be exercised if social media sites are used to discuss patient management due to

Table 2

Student Opinions of the Advantages and Disadvantages of Using Facebook as a Supplement to the Ophthalmic Optics Course

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant feedback to students</td>
<td>Students who do not have a Facebook account do not have access to this resource</td>
</tr>
<tr>
<td>Ability to benefit from classmates’ questions and comments</td>
<td>Posting of incorrect or irrelevant information by fellow students</td>
</tr>
<tr>
<td>Access to additional problem sets</td>
<td>Posting of redundant questions or comments</td>
</tr>
<tr>
<td>Access to professor outside traditional office hours both asynchronously and in “real-time”</td>
<td></td>
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<tr>
<td>Familiarity with current technology</td>
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<tr>
<td>Promoted collaboration related to learning and studying</td>
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<tr>
<td>Allows for discussions outside of the classroom</td>
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privacy issues.

We believe further studies need to be performed to examine the educational effectiveness of using social media sites as educational or communication tools in optometric education. However, one of the difficulties with measuring the effectiveness of a new learning tool is the management of student fairness in access to the information presented if the study has the potential to alter final course grades. A carefully designed study would be valuable in assessing the effectiveness of this or any new communication tool in the optometry profession or any other educational field.

References