The impact of social software on the information literacy skills of Net Generation students: a case study

Gabor Feuer

University of Ontario Institute of Technology


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THE IMPACT OF SOCIAL SOFTWARE ON THE INFORMATION LITERACY SKILLS OF NET GENERATION STUDENTS: A CASE STUDY

Dr. Gabor Feuer
University of Ontario Institute of Technology

THE BROADER PROBLEM
Has the learning paradigm truly shifted in higher education? Do emerging technologies such as social software (SSW) extend the boundaries of the controlled, standardized model of education currently prevalent in academia? Are we realistically or maybe even inequitably moving toward borderless open education? Is social software a catalyst in this process?

SPECIFIC CONTEXT OF THE STUDY
The study university is a laptop-based university in southern Ontario. The researcher has worked for the university in a position responsible for the management of information technology in the Library. The use of technology in teaching and learning is a strategic focus of the university and it is viewed as a true differentiator in both cultures.

DEFINITIONS OF SOCIAL SOFTWARE
A set of Internet-based, consumer-oriented computer technologies designed to help people interact, communicate, create, manipulate and share content. Examples of the specific types of SSW include blogs, wikis, social networking/social media, podcasting and social bookmarking/tagging.

RESEARCH QUESTIONS
1. What is the nature and extent of SSW use among the participating students?
2. How does SSW affect the students' information literacy development?
3. The majority of students regarded SSW as a set of primarily personal, consumer tools rather than academic tools (i.e. some of the students in c-group also reported SSW use during the study). Lack of clear mandate and enforcement of SSW use as well as its nebulous non–hierarchical nature (compared with LMS) acted as a barrier to adopting it.
4. No difference was found between the treatment and the control groups in either the pre-test ILT scores or the post-test ILT scores. The different instructional treatment in the two groups did not result in different academic performance as measured by the ILT scores. However SSW use itself was positively correlated with academic performance. When all SSW users were compared with non-users regardless of class sections, they achieved 6.3 percentage point higher scores on the post-ILT test, which is statistically significant (t=3.248, p<0.004). The pre-test scores for these two groups of students were no different. See Table 1.

Table 1: Mean ILT scores by use of SSW (t-test)

<table>
<thead>
<tr>
<th>SSW Use</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>65.34</td>
<td>12.09</td>
</tr>
<tr>
<td>No</td>
<td>62.50</td>
<td>11.28</td>
</tr>
</tbody>
</table>

5. Academic outperformance was correlated with factors such as skills with SSW, students’ engagement and maturity (illustrated in Table 2). Data bore some indication that male students could benefit from using SSW more than female students.

Table 2.

<table>
<thead>
<tr>
<th>Factors and variables</th>
<th>Yes (n=56)</th>
<th>No (n=22)</th>
<th>Pearson Chi-Square</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook use</td>
<td>4.68**</td>
<td>3.91**</td>
<td>23.13</td>
<td>.000</td>
</tr>
<tr>
<td>Facebook users</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSW use</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. No difference was found between perceptions of learning between SSW users and non-users, although SSW users appeared to be more satisfied with the level of technology used in the course. The utility of different SSW tools beyond SNT seems appealing for education, but this is not yet evidenced convincingly in students’ behaviour.

7. Among SSW users, positive pre-existing attitudes toward the utility of SSW to support learning correlated with these students' favourable views of their learning (post-test).

CONCLUSION AND FUTURE RECOMMENDATIONS
• Further research is needed to understand the divergence on the uptake of various social software tools amongst Net Generation students. The utility of different SSW tools beyond SNT seems appealing for education, but this is not yet evidenced convincingly in students’ behaviour.
• Institutions using SSW in instruction should pay special attention to students with less-developed technology skills. While generally this is true for any technology–enhanced teaching and learning environment, in the case of SSW both the negative and positive effects could have a larger impact on this population.

This familiarity has played a major role in students’ eventual adoption of these tools in the course (i.e. some of the students in C group also reported SSW use during the study). Lack of clear mandate and enforcement of SSW use as well as its nebulous non–hierarchical nature (compared with LMS) acted as a barrier to adopting it.

PROCEDURES AND INSTRUMENT

RESEARCH DESIGN
The research employed an exploratory, descriptive, qualitative case study. The focus of the study was on the impact of SSW on students’ information literacy skills. A quasi-experimental model was used to compare the effects of using SSW in information literacy instruction with an approach relying on traditional educational technologies such as learning management systems (LMS). In addition, participants’ perceptions and attitudes regarding SSW were collected using online surveys.

THE COURSE AND PARTICIPANTS
The course was a social science writing and information literacy course, typically taken in first year. Initially, 67 students were enrolled in Section 1 of the class and 142 students in Section 2. For the study, 37 students consented to participate from Section 1 and 78 from Section 2. How about 24 students in Section 1 and 56 students in Section 2 completed the study; the result in a participation rate of 36 and 38 per cent participation rate respectively. The blended participation rate was 38 per cent.

STUDY FINDINGS:
1. Among the study participants, students reported only a moderate amount of SSW use, with the exception of social networking technologies (SNT), whose adoption was nearly ubiquitous.
2. The dominant use of SSW falls outside of the academic sphere, although there is moderate amount of academic use reported.
3. The majority of students regarded SSW as a set of primarily personal, consumer tools rather than learning tools. However, students more familiar with SSW tools recognized the academic utility of these tools (pre-test).

Figure 2: Comparison of usage frequency and views regarding SSW tools bookmarking/tagging.

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Gabor Feuer, PhD
Library & IT Manager
University of Ontario Institute of Technology
Telephone: 905.721.8688 ext. 2974
Website: http://www.uoit.ca/GrF
Email: gabor.feuer@uoit.ca