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

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

THE BROADER PROBLEM

How 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 inevitably 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

How does SSW impact the information literacy skills and learning of a sample of Net Generation students at one laptop-based university located in southern Ontario?

1. What is the nature and extent of SSW use among the participating students?
2. What are the participating students’ perceptions and attitudes about using SSW for learning?
3. To what extent do these students utilize SSW for academic tasks in the context of learning information literacy?
4. What are the barriers (if any) to using SSW in this context?
5. How do the perceptions of the students who used SSW compare with those students who did not use SSW?
6. Is there a relationship between the students’ perceptions and attitudes (question 2) toward SSW and academic information literacy?
7. Among SSW users, academic outcomes were correlated with factors such as skills with SSW, students’ engagement in using SSW and in the use of SSW as a learning tool.

THE RESEARCH DESIGN

The research employed an exploratory, descriptive, quantitative 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 advantage of the 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. However, only 24 students in Section 1 and 56 students in Section 2 completed the study, resulting 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).
4. Academic performance is correlated with students’ perceptions and attitudes toward SSW, and the nature of SSW use during the study.
5. Academic outperformance was correlated with factors such as skills with SSW, students’ engagement in using SSW and in the use of SSW as a learning tool.

STUDY FOCUS:

1. Pre-test 1: Instruction: Pre-test surveys were conducted to assess students’ perceptions and attitudes regarding SSW: Standardized information literacy pre-test* was taken to determine baseline skills.
2. Phase 1: Active instruction phase
   a. To what extent do they leverage the distinguishing features of these tools?
   b. What are the barriers (if any) to using SSW in this context?
3. Phase 2: Student self-study phase
   a. To what extent do they leverage the distinguishing features of these tools?
   b. What are the barriers (if any) to using SSW in this context?
4. Post-phase 2: Post-surveys conducted to assess changes in students’ perceptions regarding SSW, and the nature of SSW use during the study. Standardized information literacy post-test* was taken to determine changes in skills.

PROCEDURES AND INSTRUMENT

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 their nebulous non-hierarchical nature (compared with LMS) acted as a barrier to adoption.

Research Design

4. no difference was found between the treatment and the control groups in either the pre-test I LT scores or the post-test I LT scores. The different instructional treatment in the two groups did not result in different academic performance as measured by the I LT 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 6.8 percentage point higher scores on the post- I LT test, which is statistically significant (t=3.045, p<0.004). The pre-test scores for these two groups of students were not different. See Table 1.

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

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment (T)</td>
<td>68.6 (12.09)</td>
</tr>
<tr>
<td>Control (C)</td>
<td>61.8 (7.35)</td>
</tr>
</tbody>
</table>

5. Academic performance was correlated with factors such as skills with SSW, students’ engagement in using SSW and in the use of SSW as a learning tool.

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.

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 the negative and positive effects could have a larger impact on this population.

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