Building Proactive Student Interactions Online Through an Interactive Course Wiki: A Pilot Study

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An interactive course wiki is explored as a means of generating proactive student engagement with course materials and enhancing peer-to-peer feedback on assignments in an online undergraduate professional social media communications course. Introducing the wiki facilitated students' interactions with course concepts and assignments while encouraging students to provide meaningful peer-to-peer feedback on their work. Comments between students on the wiki consistently provided on-target suggestions for improving quality and professionalism. Based on a pilot-study comparison of student work product between sections of the course utilizing a conventional online discussion board and sections of the course utilizing the interactive course wiki, the long-term value of an interactive wiki in enhancing student learning is predicted. Ideas for future work, including suggestions for educators on implementing similar wikis, are provided.

Wikis in Online Learning

In the world of Web 2.0, user interaction with and contribution to the body of knowledge present online is rapidly increasing. This increase is readily seen in the proliferation of social media sites, interactive "expert" Web sites sponsored by businesses and/or professional societies and quick collaborative knowledge bases known as wikis (Chang, Morales-Arroyo, Than, Tun, & Wang, 2010; Kimmerle, Moskaliuk, & Cress, 2011; Workman, 2008). Wikis are of interest to educators because they can be used to address one of the more difficult problems present in online learning – how to get students to actively engage with the material in a course when there

is no face-to-face lecture and associated discussion present (Chang et al., 2010; Cole, 2006; Workman, 2008).

Although there is no universal answer, one key to the successful use of a course wiki centers on structuring assignments to draw students into the process of building a collective body of knowledge as opposed to using the wiki passively to simply read and absorb what others have written (Choy & Ng, 2007; Gazda & Hrabe, 2008; Robertson, 2008). Assignments that encourage students to challenge what others have added, either through rewriting or extending the materials, can be effective as can assignments that rely on students supplying supporting sources for wiki entries or otherwise vetting the content of what is posted online. Assignments that seek to have students simply respond to a posted question or to provide entries that stand alone without interaction with other learners are not as effective and are subject to the same potential for disengagement by students as are poorly structured discussion boards or other similar tools created through online learning management systems (Daspit & D'Souza, 2012). The bottom line appears to hinge on structuring the wiki such that students contribute, actively, to a larger body of knowledge than what they could prepare on their own and also making that body of knowledge central to achieving success in the course (Alexander, Lynch, Rabinovich & Knutel, 2014).

As an application of this process, engaging students in collaborative problem solving through interactions on a course wiki has been shown to improve learner comprehension and enhance outcomes relative to more passive wiki usage (DeWitt, Alias, Siraj & Spector, 2017). Further evidence of the effectiveness of wikis to generate collaborative solutions to problems

posed in online courses is presented by Altanopoulou, Tselios, Katsanos, Georgoutsou, and Panagiotaki in their study on introducing basic information technology concepts and problems through a course wiki (2015). These researchers determined that the collaborative nature of the wiki was particularly helpful to students who demonstrated lower initial course performance, with strong gains shown in overall course comprehension following collaborative learning on the course wiki (Altanopoulou et al., 2015, pp. 513-514).

Assessing student performance on wiki-based assignments in a manner that is both effective and equitable will frequently require educators to make adjustments in their approaches, including the design of grading rubrics and the communication of "what counts" factors to students. When evaluating wiki-based student work product of any kind, adherence to the principles of authentic assessment provides a foundation for success (Eddy & Lawrence, 2013). Authentic assessment is based on evaluating students' success in performing real-world tasks and serves as a connection between the course goals and objectives and the acts of creating work product that mirrors these expectations. It is further assumed that to be considered successful, students' work product should, ultimately, be transferrable to some form of real-world application with longer term implications (Eddy & Lawrence, 2013, p. 256). Authentic assessment is thus considered to be application-based as opposed to being centered on the memorization and recall of specific facts and figures (Mueller, 2011).

Course wikis offer an excellent opportunity to put authentic assessment practices into action because assignments are readily tailored to address real-world problems and applications. Instructors may interact with

students at multiple points in the process of completing the assignments to offer preliminary feedback or to suggest potential next steps. Interim assessments of students' work can serve as corrective measures for those not making sufficient progress or can add valuable reinforcement for proactive and collaborative approaches to solving problems. While all of these potential approaches to feedback and assessment may seem to be relatively standard good assessment practices, educators are cautioned to remember that wiki-based assignments add the extra challenge of differentiating the work of individual students from the collective work as a whole (Lambert, Carter & Lightbody, 2014; Trentin, 2009; Wheeler, Yeomans, & Wheeler, 2008).

In a purely mechanical sense, educational wiki software typically includes a variety of tracking functions that allow the moderator of the wiki (the instructor) to "see behind the screen" to determine objectively who contributed to the final work product and in what manner those contributions were achieved (see, for example, the excellent "Wikispaces for Educators," http://www.wikispaces.com). Depending on how a wiki is structured, it is readily possible to track who contributed original text, who edited the text and when, who offered helpful discussion, who found and added supplemental resources and numerous other parameters. Trentin recommends setting up algorithms to weight the "what counts" factors for a given assignment and then making use of the quantitative tracking power of the wiki software to provide a numerical score for each student's participation (Trentin, 2009, pp. 48-50). Scores can be used as-is or combined with an instructor's assessment of the accuracy and professionalism of the collaborative work as a whole. Trentin makes use of

"what counts" factors such as messages sent contributing original text, message sent for editorial decisions and other parameters.

As a check and balance, Trentin also asks students to rate the contributions of their peers. This information is collected, tabulated and compared to the scores generated through the algorithms in use to reveal any discrepancies needing further study (Trentin, 2009, pp. 48-49). The importance of this peer feedback is underscored by Lazda-Cazers (2011), who also advocates a defined rubric for assessing student contributions to the wiki. This author notes that students will have greater understanding of and support for the evaluative framework and rubrics used if they are allowed either to participate in their development, or at the minimum, allowed to comment on them before beginning their work on wiki-based assignments (Lazda-Cazers, 2011, p. 204). Lambert and co-workers determined that such practices, when combined with the keystroke tracking and other moderator-available controls present in quality wiki software can reduce or eliminate confusion and disagreement regarding which students actually contributed to collaborative wiki assignments versus merely observed from the sidelines (Lambert et al., 2014).

Students generally react favorably to the incorporation of wiki-based learning in online courses, provided that sufficient instruction is available to help them get started with the processes of contributing original text, editing the material posted on line, sending discussion comments or topics to others within the course, and other similar tasks (Avci & Askar, 2012; Chang et al., 2010; Daspit & D'Souza, 2012; Lazda-Cazers, 2011). Wikis tend to be preferred over other social media-based online assignments such as blogs because wikis are perceived by students to

be more collaborative and thereby generate a stronger sense of community among students who otherwise may have little contact with each other in an online learning environment (Avci & Askar, 2012, p. 203).

Interactive Course Wikis as an Alternative to Online Discussion Boards

Purpose of this Study

The purpose of the present study is to determine if replacing a conventional discussion board in an online senior-level undergraduate business course with an interactive course wiki would enable students to master specific key concepts of the course, previously covered primarily through online discussion board assignments, either to a higher level of competency, at a more efficient pace, or both. This study is of interest based on observations made when a new business course on professional social media communications was introduced within the Commerce program at Miami University. A brief overview of the course helps to put the observations, and thus the purpose of the study, into perspective.

The goals of the course are twofold. First, the course is structured as a senior level, in-depth exploration of professional social media skills – skills that students will need to develop in order to be successful on the job. Second, the course is designed to "walk" students through a detailed career development plan that leverages the power of social media and the Internet to create a cohesive, professional personal brand. Students successfully completing the course will have the writing skills and knowledge of business-appropriate social media practices to merge quickly into professional social media communications within the workplace – plus the

social media-driven personal brand needed to help them market themselves in a highly competitive job market.

Although the course could be taught in lecture-based format, it was originally developed and continues to be delivered as a three-credit online course offering. Online courses are very popular with the blend of traditional and older, working students in the Commerce program since they offer maximum freedom to access the course materials in a manner that is not bounded by time or place constraints. For subject matter such as the social media and personal branding topics involved here, online instruction is a natural fit that actually increases the ease of delivering course content since the majority of the examples employed and the assignments to be completed may be directly accessed over the Internet.

Considering the course assignments and projects overall, students are asked to focus their studies toward creating a professional online presence on three separate social media platforms, developing an Internet-ready career plan, and participating in an online course discussion board to discuss social media theory and reflect on their learnings as their professionally constructed social media platforms evolve into finished products. All assignments are unified through linking tasks and discussions back to the construction and optimization of a personal brand that could be used to facilitate and enhance their career search efforts.

Since introduction, the new course has rapidly gained popularity with students from the various business programs on campus and also with non-business students who see professional social media communications as something of value to their own academic programs and career goals. (Course evaluation results are presented within the Results and Discussion

section.) In the aggregate, students eagerly engage the process of developing their social media sites, interacting as a cohesive group through those sites and also generally put appropriate effort into the creation of their personal brands and career plans.

During initial implementation, one specific portion of the course, however, appeared less successful, whether measured as student performance by the instructor or by student scores on course evaluations. That portion was a series of assignments on social media theory and application that required students to interact using a conventional online discussion board, such as those that are customarily found in many online courses. Students seemed reluctant to put substantial effort into their postings and, while they engaged with the instructor as required, they appeared relatively complacent about engaging their peers in any kind of constructive manner. Following multiple observation of this discrepancy in performance versus what was routinely observed in other portions of the course assignments it was decided to create and implement an interactive course wiki as a replacement for the conventional online discussion board. Undertaking this process provides the basis for the pilot study described here.

Study Hypotheses

As a result of the observations made during the initial offering of the course, three hypotheses were structured for investigation in the study.

> *Hypothesis 1*: Replacing a conventional online discussion board with an interactive course wiki constructed to cover the same subject

matter will increase student-student interaction on the topics covered.

Hypothesis 2: The use of an interactive course wiki will allow students to master the social media theory and applications of the course to a higher performance standard than the performance observed when using a conventional online discussion board.

Hypothesis 3: The use of an interactive course wiki will reduce the amount of time spent by students to complete and perfect their professional social media sites – a key course requirement – to reach the required level of achievement.

Each hypothesis is structured specifically to be relevant to the situation of the business course under study – that of a senior-level online offering typically taken by students with a strong interest in social media communications and/or career development. Comments regarding the limitations of the study in this form, and its generalizability to other course situations involving online discussion boards are presented within the Discussion and Conclusions sections of this paper.

Methodology

Designing properly controlled research to address the type of study purpose and hypotheses outlined here can require some ingenuity. In a conventional research situation, it is often possible to establish parallel "test" and "control" groups of students and proceed by developing research

instruments and procedures that measure the differences in performance or other variables when the "test" group is subjected to the new condition(s) of interest while the "control" group proceeds in a normal manner using previously established conditions. In the case described here, however, it was believed that the change proposed to the course, i.e., the substitution of an interactive course wiki for a more conventional online discussion board, could result in a substantially better learning product for students. Thus, it was questioned whether establishing a control group of students within the same class would put certain students at a learning disadvantage versus their study peers. The option of running two course sections in parallel with one using the new interactive course wiki and the other using a conventional discussion board structure was not available due to enrollment limitations that dictated one section of the course per semester.

The situation of potentially placing a portion of a course section at a learning disadvantage was addressed by designing the research study to involve sections of the course taught sequentially across multiple semesters. The "control" group consisted of a section of the course taught first, using a conventional online discussion board with assignments addressing various aspects of social media theory and practice. Results obtained from this group of students represent a baseline or point of comparison for results obtained when students were exposed to the full use of the wiki modules in the subsequent revised course format.

An electronic survey was designed to collect data on students' self-perceptions of their learnings from the course (Granello & Wheaton, 2004; Ray & Tabor, 2003, Thompson, Surface, Martin & Sanders, 2003). The

survey consisted of eight statements for the initial discussion board version of the course (control group) with the addition of two more statements specifically focused on the interactive course wiki for the revised wiki-containing version of the course (test group). Students were asked to indicate their degree of agreement with each statement using a five-point Likert scale with "0" representing strong disagreement and "4" indicating full or complete agreement (Bond & Fink, 2001; Cummins, 2003; Kelsey & Bond, 2001). Spaces below each question allowed students to enter supplemental verbatim comments, if desired, to provide qualitative reasoning for their numeric responses. A complete listing of the statements used may be found in Table 4 of the Results and Discussion section. Due to the relatively small sample sizes of each group (ca. 20-25 students, each) the study was not predicted to yield statistically significant differences between results from the two groups, but rather provide an indicator of whether or not students found the wiki-based course revision to be of value in their learning processes. Results of this pilot study could then be used, if warranted, to design a larger follow-up study to confirm or refute the findings noted here. Research findings and recommendations were generated from an examination of the analyzed quantitative and qualitative data sets as a whole, subject to the sample size limitations of the pilot study.

Social Media and Career Development Course Content

Course Overview and Assignments

Table 1 illustrates the basic assignments and associated weighting percentages for the initial discussion board version of the course. Overall,

students are asked to focus their attention on three separate social media platforms, develop an Internet-ready career plan, and participate on the discussion board to share constructive feedback with other students, discuss common course topics and issues, and reflect on their learnings as their professionally constructed social media platforms evolved into finished products.

Brand Statement and Career Plan

Students undertake the personal brand assignment first, doing so as the initial step in a career plan. The process followed is similar to that described by Stanton and Stanton (2013), Edmiston (2014) and also by Vitberg (2010) with emphasis on direct, one-to-one feedback from the instructor to help clarify the brand statements for those who are not conversant in the language of personal branding from previous marketing coursework. Instructor feedback provides necessary guidance and structure in an iterative approach where points are not assigned until the student has a strong, professional brand statement in hand. An iterative approach is mandatory in this case since so much of the remaining structure of the course hinges on the availability of the student's personal brand statement. The remainder of the career plan assignment takes place in stages across the duration of the course in order to integrate learnings from the various social media technology assignments. Modules within the career plan generally follow the outline provided in the *Brand You, Marketing Real People, Real Choices* text, which serves as a resource for students in this assignment (Solomon, Marshall & Stuart, 2012).

Table 1: Social Media and Career Development Course Assignments and Weighting Factors (Online Discussion Board Version)

Assignment	Brief Description	Weighting %
Career Plan	Develop a personal brand statement and use it to drive the creation of a complete career plan, with emphasis on Internet applications and communications.	25
Blogging	Using WordPress or a similar blogging site, develop a personal blog that is consistent with your brand image.	20
Rapid Messaging	Using Twitter, set up an account and "tweet" interesting news and/or commentary that align with your brand image.	20
Career Networking	Join LinkedIn, build a brand-driven profile and resume; join logical interest groups that focus on your interests.	20
Online Discussion Board	Respond to instructor's listed discussion topics by reflecting on personal progress in creating three social media sites. Comment to other students' postings as required with additional postings as desired.	15

Professional Social Media Applications

With the basic career plan activities underway, the focus of the course turns to modules involving professional application of social media technologies. A student who follows the syllabus exactly completes modules concerned with the use of WordPress for blogging, Twitter for rapid messaging, and LinkedIn for networking. However, depending on a student's personal brand statement and career goals, this particular combination of technologies may not be optimum. Substitutions are

permitted, based on a student's preference for additional social media platforms such as Pinterest, Instagram, YouTube, and others.

The first step in the process of having students design and construct their sets of professional social media sites is to have them complete a series of brief learning modules covering the theory behind professional social media communications as described in the introductory sections of this paper. While working through these modules, students are encouraged to also explore as many social media platforms online as possible and to derive a "short list" of those that appear to be most relevant and appealing, based on their personal brand statements. Short lists are discussed with the instructor, with students furnishing a brief written justification for selecting sites other than the three sites pre-selected for the course (WordPress, Twitter, and LinkedIn). For the remainder of the course, students develop and refine their social media sites with coaching and feedback provided by the instructor. Students are also required to comment to their peers' postings on their respective sites to help establish a dialog on the topics covered.

Brief Overview of Course Feedback – Initial Version

Feedback received anecdotally within the semester and through the end-of-course survey (see Results and Discussion) indicated that the initial version of the course was of high value to students in meeting their needs for career development assistance and also for exposing them to the professional side of social media communications. Students indicated that they would definitely recommend the course to their peers as well. Qualitative feedback was also positive, with the "comments to others" feature of the assignments on the newly authored social media platforms

drawing especially frequent mention by students. Under areas for improvement, the most frequently cited remarks dealt with a need for additional feedback and guidance during both the development of the students' social media sites and through the ongoing use of those sites over the length of the semester-long course. As suspected, students also indicated through qualitative comments that the online discussion board assignments did not met the value level provided by other aspects of the course.

Modifying the Course – Revised Version

In the course as originally structured, the preponderance of the feedback received by students came directly from the instructor in terms of comments on graded assignments, personal notes and suggestions sent in response to evaluating social media sites and interaction through the online discussion board managed as part of the Canvas Learning Management System (LMS) in use. Opportunities for student peer-to-peer feedback were limited, except through the fairly rigid online discussion board that offered little in the way of opportunity for freeform comment. What was readily observed, however, was that students frequently left feedback for each other on their respective social media sites through replies, comments and other site-specific approaches, such as "retweets" on Twitter, "likes" on Facebook, etc. – although students may not necessarily have realized that this is what they were doing at the time.

Adding the Interactive Course Wiki

Interactive wikis provide an excellent medium for groups of individuals to contribute material to a collective work (Daspit & D'Souza, 2012; Workman, 2008). Whether moderated or left to the discretion of the

users posting information, wikis tend to gravitate to a higher quality of information as time and the number or iterative postings increase. Users build on what has been posted before them and make editorial corrections to or comments on material that they believe to be suspect. Although a course-based wiki is customarily closed to public view, students could read each other's feedback, respond to it, and offer additional commentary, if desired. Congruent with the true purpose of a wiki, students could also challenge each other's contributions and offer suggestions to improve definitions, explanations, etc., while collaborating to create a shared platform of knowledge.

In an effort to capture the spirit and practice of this form of collaboration, an interactive course wiki was designed and added to the Social Media and Career Development course. The wiki was believed to be a logical choice because it maintained alignment with the social media theme of the course and offered a substantially more contemporary platform for students to deliver peer-to-peer feedback than would a customary course discussion board. Referring to Table 2, the wiki-based assignments in the course replace what would more typically have been online discussion board assignments. The percentage of points associated with the wiki assignments was set at 25% of the total available points to emphasize that student interactions using the course wiki would be an important criterion for evaluating students' overall course performance, with other assignment values adjusted accordingly.

Table 2: Social Media and Career Development Course Assignments and Weighting Factors (Wiki Version)

Assignment	Brief Description	Weighting, %
Career Plan	Develop a personal brand statement and use it to drive the creation of a complete career plan, with emphasis on Internet applications and communications.	23
Blogging	Using WordPress or a similar blogging site, develop a personal blog that is consistent with your brand image.	18
Rapid Messaging	Using Twitter, set up an account and "tweet" interesting news and/or commentary that align with your brand image.	18
Career Networking	Join LinkedIn, build a brand-driven profile and resume; join logical interest groups that focus on your interests.	18
Course Wiki	Post inks to all social media platforms and assignments, critique the posting and platforms of other learners, and contribute to group discussions.	23

The course wiki was developed using the Wiki for Educators tool, available through Wikispaces at http://www.wikispaces.com. As configured, each page of the wiki is dedicated to a separate type of assignment, allowing students to post original text for their submissions and then follow up with discussion postings on the same page to comment on and critique the work of others. Assignment instructions are posted at the top of each page, with links to the course syllabus for supplemental information. Table 3 includes a full listing of all pages present in the course wiki, with brief descriptions of the assignments represented.

Table 3: Wiki-Based Activities Used in The Course

Title of Wiki Page	Brief Activity Description
Annotated Bibliographies	Complete and post one or more annotated bibliographies on social media topics.
Articles Review	Review two articles taken from the social media literature.
Branding Statements	Write and post a three-sentence personal brand statement for career searches and interviews.
Entrepreneur Activities	Brief essays covering the desire to be an entrepreneur or avoid this type of work.
Essays	Four essays on approaches to life on the job, spaced throughout the course.
Forum – with Discussions	Proposals describing what to cover on new social media sites – with peer feedback.
Glossary	Posting of social media terms and specialized vocabulary.
Interviews	1:1 interviews with someone active in a career of choice, posted in Q&A format.
Job Postings	Repository for actual job postings identified and reported by students.
LinkedIn Memos	Memos describing approach and content to be posted to LinkedIn.
News Feeds (RSS)	Investigation of RSS (Really Simple Syndication) news feeds and readers, with topic of choice.
Podcaster Reviews	Review of an actual podcast, including reaction to the format and content of the presentation.
Preferences	Rank ordering of a series of job duties and work styles, based on personal preferences.
Social Media Platforms	Repository for links to all student-generated social media sites.
Top Ten Assignment	Posting of lists of top ten personal keywords, to assist in targeted job searching.

Value Propositions	Brief essays covering the value that a student can offer to an employer – designed to pair with branding statement to create an "elevator speech."

An examination of the "Forum – with Discussions" page from the course wiki provides an illustration of how the wiki operates in practice. Following introductory lessons concerned with what constitutes a professional online presence, students begin setting up their own social media sites from scratch. On the wiki Forum page, students then post three competing alternative proposals of what they would like to cover on their social media site, making their best possible arguments for why each alternative is relevant to demonstrating both professionalism and a connection to their ultimate career aspirations. As all proposals are available for viewing on the wiki Forum page, students can readily see what their peers are proposing. In the next step of the assignment, students are required to go back to the wiki Forum page, read each set of three proposals by a peer and then generate a brief, but detailed constructive assessment of which proposal in each set of three would be most likely to achieve the assignment goals. These assessments are posted as discussion topics to the wiki Forum page, with each student having his/her own discussion topic section for peers to use in leaving feedback. The end result for each student is a robust discussion section with commentary and constructive suggestions from all peers in the course.

With peer feedback in hand and additional constructive comments from the instructor, students then set up their social media accounts and start to populate them with materials congruent to their personal brands.

As a course requirement, students post new material to each site weekly for the remainder of the semester and also add a link to each new posting to the course wiki for feedback. Grading rubrics used to evaluate all postings stress professional language and graphics, alignment between the personal brand and the postings and also the student's efforts to link multiple accounts together or otherwise manage the flow of traffic to take advantage of their full online presence.

Regardless of the assignment involved, all peer-to-peer feedback passes through the wiki for transparency, so every student may benefit from reading what is under discussion. Wiki participation is graded, with points awarded not only for posting materials and providing feedback, but also for helping to improve the structure of the wiki and take its topics in new directions that enhance the basic goals and outcomes of the course.

Results and Discussion

Qualitative Course Feedback

As mentioned briefly above, anecdotal and more formal written qualitative feedback from students indicated that the course is highly valued, with strong positive feedback given on the modules involving the setup of professional-style social media platforms and the linkages to personal branding and also to career development. Whereas students were less positive about the theory-driven assignments and discussions handled through the online discussion board in the initial version of the course, they were substantially more positive and more vocal as well about the same materials when delivered through the interactive course wiki in the revised version of the course.

Comments included numerous examples of students finding the collaboration with other students to be easier to accomplish and more rewarding in the wiki format. Also, students indicated that working together to build and optimize group responses to the issues posed via the wiki helped them better retain key concepts. Both versions of the course were highly recommended by students through their qualitative responses, but the students enrolled in the revised version of the course were generally more detailed and more enthusiastic in their recommendations.

Quantitative Survey Responses

While the qualitative responses provided by students are very useful in fine tuning the course curriculum, it is even more interesting to compare and contrast the data from the quantitative course surveys taken by students enrolled in the initial and revised versions of the course. Table 4 summarizes the available data.

Table 4: Student Evaluation of Various Course Assignments and Learnings

Statement	Mean Score	
	Disc. Board (N=18)	Interactive Wiki (N=24)
My knowledge of the importance of a personal brand increased during this course	3.57	3.60
My ability to understand and summarize my interests and strengths improved through completing this course	3.42	3.72
I feel confident in constructing my own personal brand as a result of taking this course	3.88	3.88
The career plan assignment helped me formulate an action plan to move forward with my career goals	3.74	3.76

The social media platform assignments helped me understand how to use social media in a professional manner	3.56	3.96
The social media platform assignments made me confident in what my online presence tells prospective employers about me	3.46	4.00
The course wiki helped me connect with my fellow learners and share feedback	N/A	3.90
Expectations regarding when and how to use the course wiki were clear	N/A	3.72
This course added value to my university program	3.60	3.94
I would recommend this course to other students	3.66	4.00

Examining the results overall shows robust positive scores on all statements, with students in the revised wiki-based course trending toward a higher level of agreement with the majority of the statements. Of particular note are the increases in scores for the statements concerned with confidence in a student's online presence and concerned with recommending the course to others. No statements reflected a reduced score when comparing the initial and revised versions of the course. As the sample sizes studied were very small (two sequential sections of the course in back-to-back semesters), the differences observed are not statistically significant using a paired t-test, 0.05 significance level (Devore & Peck, 1993). This result is not unexpected, yet the indication is clear that students responded positively to the course revisions.

The data shown in Table 5 provide additional perspective that helps to evaluate the success of the course revisions. These data serve to address the question of whether or not students' actual performance in the course is improved in the revised wiki-based version relative to that in the initial version.

Table 5: Student Performance on Social Media Site Creation Assignments

Measure	Mean Score	
	Disc. Board (N=18)	Interactive Wiki (N=24)
Average final grade on a social media site creation assignment (grades shown as points received out of 500 points possible)	415	468
Average number of iterations undertaken to reach a grade of "B" or better on a social media site creation assignment (>400/500 points)	3.6	2.3

As may be seen in Table 5, students enrolled in the revised wiki-based version of the course scored roughly 13% higher on the final grading of their social media platforms as compared with students enrolled in the initial version of the course. Notably, students were able to achieve these higher scores through less iterations of their work product as well. Since the only aspect of the course to be changed between the initial and revised versions was the substitution of the interactive course wiki for the more conventional online discussion board, it is reasonable to equate the positive changes in student performance to this revision. Even noting the small sample sizes involved in this pilot study, the increase in average final grade on the social media assignment is statistically significant (paired t-test with significance level of 0.05), as is the reduction in the average number of iterations needed to complete the work satisfactorily, using the same evaluative criteria (Devore & Peck, 1993).

Validation of Research Hypotheses

Returning briefly to the set of three research hypotheses that formed the basis for the study conducted here, it is useful to address whether or not each hypothesis still stands.

> *Hypothesis 1*: Replacing a conventional online discussion board with an interactive course wiki constructed to cover the same subject matter will increase student-student interaction on the topics covered. *This hypothesis is valid – the combination of high quantitative scores on the wiki-based survey questions and qualitative remarks made by students indicates that students interact more and collaborate more effectively using the wiki.*
>
> *Hypothesis 2*: The use of an interactive course wiki will allow students to master the social media theory and applications of the course to a higher performance standard than the performance observed when using a conventional online discussion board. *This hypothesis is valid – students scored higher by about 13% (or a little more than one letter grade) on completing their social media platform project assignments when enrolled in the wiki-based version of the course. This hypothesis is particularly worthy of additional investigation, given these encouraging results.*
>
> *Hypothesis 3*: The use of an interactive course wiki will reduce the amount of time spent by students to complete and perfect their professional social media sites – a key course requirement – to

reach the required level of achievement. *This hypothesis is valid – students enrolled in the wiki-based version of the course achieved their desired scores more quickly and with less iterative assistance from the instructor.*

The Importance of the Course Wiki

It is difficult to overstate the importance of having some form of peer-to-peer feedback vehicle in a course like Social Media and Career Development. While peer-to-peer feedback is a course requirement, students in the wiki-based section of the course consistently go above and beyond what is expected to provide truly helpful insights to their peers. The wiki facilitates this process by developing a level of collaboration and trust among students since they see participation as working toward a common goal. It is difficult to achieve this same level of buy-in and participation using a more conventional online discussion board.

Final Reflections, Tips, and Future Work

For instructors with a working knowledge of social media applications or who are Internet-savvy, the Social Media and Career Development course is not a difficult course to set up and implement. This course does, however, require a high level of instructor diligence throughout the duration since small doses of constructive feedback at the right time can greatly aid students as they work through the social media-based assignments. The foundation of the course is the development of clear brand statements for all students and this can best be accomplished through a hands-on, iterative approach with 1:1 coaching where needed.

Helping students recognize the importance of personal branding and professional social media use provides them with knowledge and tools that they can apply throughout their careers.

The implementation of a student-driven interactive course wiki as described here can greatly assist with engaging students in the study of the course materials and can also add highly valuable peer-to-peer feedback opportunities in a collaborative learning environment. Based on the knowledge gained from offering the Social Media and Career Development course during two academic terms, a series of tips may prove useful to educators desiring to implement an interactive course wiki. These tips include:

- Separate wiki pages or boards by assignment topic – keep communications regarding assignments distinct and clear.
- Put abbreviated instructions at the top of wiki pages – details can be fleshed out in the syllabus or lesson plans.
- Make proper use of discussion functions – make sure that students post original materials to the body of the wiki pages, leaving the discussion fields or tabs for commenting on the work already posted by others.
- Do not "over-organize" the wiki – give students the creative freedom to design how pages look and how pages are organized to display content.
- Encourage peer-to-peer interaction – as the instructor/moderator, post only to help facilitate the discussions, leaving the body of the wiki pages for student use and collaboration.

- Choose a wiki platform that allows the instructor/moderator to track usage by student and repair accidental post-overs or deletions.
- Keep performance feedback private through e-mail communications to students, gradebook entries, etc., and not on the wiki.

The Social Media and Career Development course will continue to evolve, and it is anticipated that additional wiki-based assignments will be included in the future. It will be important to track both student perceptions of the learning received and actual, quantitative evaluations of the skills gained in order to properly assess the value of an expanded wiki. Further research is also planned to provide a more robust assessment of the effect of the increased peer-to-peer feedback made possible through the wiki. Such assessments should be readily achievable as enrollment in the course continues to expand.

In addition, there are ample opportunities to expand the research described here to include studies that are similar in design, but much larger in terms of sample size. The results noted here are preliminary in nature, but sufficient to demonstrate that interactive wikis may be worthy of consideration as student-preferred alternatives to traditional discussion boards in online courses. By comparing the two instructional approaches in more comprehensive settings – such as across multiple parallel course sections within a given semester – it is likely that a statistically valid sample size may be realized. Such larger-scale studies will help to further refine and clarify the potential value of interactive wikis in online learning.

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