Chapter X

Preparing Business Students for 21st Century Business with Social Learning

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Abstract

At Pepperdine's Graziadio School of Business and Management the educational focus on equipping business students to with real-world experiential learning to immediately be more effective business practitioners. For this analysis we will focus on two classes. These classes are focused on preparing students to enhance processes and operations while strategically using information systems to remain competitive. Like most courses taught in the business school, these courses are driven by a series of case studies and a team-based project involving real-life clients with real business needs. Given both the professional nature of the business school and the geographic distribution of our five campuses across Southern and Northern California, many classes and programs are enhanced by the integration of e-learning pedagogies and tools. Specifically, the Graziadio Learning Environment and Network (GLEAN) is a "network of people and tools to learn, collaborate, and discover – bit by bit." Powered by Google Apps, GLEAN is a stable framework that integrates and uniformly authenticates our traditional learning systems with an ever-growing collection of Web2.0 and social media tools, including a Facebook-like social network called Yammer restricted to the Pepperdine domain. Here, we give a short orientation to the evolution of social networks followed by some theoretical and practical ways social networks enable new ways to learn, as well as some of the challenges. We then provide specific details about the class we both teach in a blended format, the specific assignments and activities, and concrete examples framed within each of the social and situated learning theories presented. We outline perceptions of social learning in this environment from both the professor's and students’ perspective, then conclude with some implications for social and situated learning in the national imperative for a new “culture of evidence.”

Waves of Social Network Evolution

Wave 1: Sociological Understanding through Social Network Analysis

Despite its prominence in 21st century digital culture, social networks have been defined and analyzed for over a century as social structures made up of individuals connected to one another by relationship. Early 20th century sociologists analyzed the social, psychological, and cultural aspects of social dyads, triads, groups, and loosely-knit networks. Decades later, sociologists and anthropologists began investigations into the nature of social networks in clans, tribes, bands, villages, organizations, and schools. By the 1960's, Stanley Milgram’s small-world experiment investigated the extended connectedness of people within a social networks producing the now famous “six degrees of separation” thesis.
Wave 2: Technology Connecting People
Early computer-mediated communication systems such as the Plato bulletin board system, Usenet, LISTSERV email lists aimed to support existing and emerging social networks. Early web services such as America Online, Prodigy, and GeoCities used chat rooms to foster new interactions, relationships, self-expression and information sharing among otherwise unconnected individuals sharing a common interest or need. By the turn of the twenty-first century, user profiles became a central feature of the burgeoning social network services.

Wave 3: Social Networks Reshaping Consumer Communication and Behavior
While Facebook boasts over 500 million active users making it the top social network across several English-speaking countries, its popularity is surpassed in Asia by other sites such as Cyworld, Mixi, Orkut, Wretch, Douban, and QZone. By late 2010, global surveys reported that users around the world spend more time on social sites than on email (emarkerter, 2010). Not only are consumers reshaping their social circles, studies show that social networking influences how people collaborate, make voting and purchasing decisions, seek social and professional opportunities, get advise and answered, influence others, form new ideas, take action on ideas, and learn.

Wave 4: Beyond Personal: Social Networks in the Enterprise
Following the trends and new forms of communication and behavior in the personal and consumer space, businesses have starting capitalizing on the power of global and internal social networks to improve business communication, collaboration, knowledge sharing and management, professional development, problem-solving, process improvement, innovation and more. (Hinchcliffe, 2009)

Wave 5: Social Networks Redefining Professional Classes and Institutions
Social networks and media are not only changing how we do things, but also who can do them. Whether the action is to make travel arrangements, trade stocks, publish an news article or book, give advice, design T-shirts or tissue boxes, raise funds, or mobilize a revolution, people are empowered to act, organize, and exercise influence and power in ways never before possible.

Social Networks Enabling New Ways to Learn

Social Learning Networks
Traditionally, educational institutions and large organizations develop standardized content and curricula to deliver via formal training with the central goal of improving employee competency and general professional development. Research shows that in the workplace, roughly 80% of what employees learn about their job is done, not through formal training, but through informal observation, conversation and discovery. (Cross, 2006) As this realization comes to the forefront, many organizations are starting to focus more broadly on ways they can support a technical and cultural infrastructure for both formal and informal learning within their social networks. It is our contention that higher education, especially professional schools whose students bring a wealth of professional experience with them, could benefit from the same support model using social networks in the following five ways (Cross, 2006):

1. Formally Structured Learning (From Content to Competency)
While traditional lecture-based classes may no longer be considered sufficient on their own to support effective learning, formalized face-to-face sessions are important to the learning process. In some cases, real-time online sessions with either audio and/or video contact may accomplish the same goals of providing a designated time and support for learning. In particular, face-to-face learning is most effective when the focus is shifted from delivering content to developing
competency through relevant interaction, practice, collaboration, assessment, feedback, and refinement.

2. Accidental & Serendipitous Learning (From Stock to Flows)
Historically, traditional media has shaped our notions of knowledge through the stock of resources we amass, organize, and retrieve – books, articles, documents, and even digital knowledge bases. In the last several years, the web has effectively enabled instant access to an infinite stock, lending itself more to accidental, serendipitous learning. At the same time, social networks and other time-based social technologies such as microblogs, social bookmarks, and youtube are reshaping how we, and our students, develop knowledge through a flow of timely engagements.

3. Personally-Directed Learning (From Predictable to Emergent)
As the world, or our understanding of it, grows more dynamic and complex, our success in relying on predictable and structured models such as SOPs (standard operational procedures) and documented best practices is diminishing. As a result, we are needing to be more responsive, creative, and innovative with new knowledge, strategies, and emerging practices through a sea of unstoppable change. Without set resources and formal curriculum to keep up, individuals must explicitly direct their own just-in-time inquiry, learning, and professional development.

4. Group Directed Learning (From Worker-Centric to Team-Centric)
As organizations and schools become more global and distributed, there is a growing imperative for teams to support each member’s learning while still engaged in collaborative projects and activities. Frequent posts in a social network about seemingly mundane tasks, issues, and questions is a way to do just that. Social networks that automatically capture and index such murmurs and conversations not only keep a group focused and engaged, but they also serve as a self-generating knowledge base for easy tracking, future inquiry, and ongoing discovery of collective progress and intelligence.

5. Inter-Organizational Learning (From Experts to Networks)
As business, and the world, becomes more complex and dynamic, emerging knowledge and practices need to be quickly articulated and continuously refined. As such, consistent reliance on a particular set of individuals possessing such knowledge and expertise becomes more tenuous. Shifting reliance from a ‘subject matter expert’ to a ‘subject matter network’ enables a rapid feedback loop across a network’s weak ties without a hierarchical intervention. (Oehlert, 2010)

Situated Learning in Communities of Practice
While communities of practice (CoPs) have existed throughout history, cognitive anthropologists Jean Lave and Etienne Wenger coined the term in their foundational book “Situated Learning: Legitimate Peripheral Participation” (1991 Lave and Wegner.) A community of practice is a group of people, within a specific context, who share a concern or a passion for something they do – and learn how to do – better as they interact regularly. Here, learning is understood as a social process whereby knowledge is co-constructed within a specific context and situated within a particular social environment – be it physical, online, or a blend of both. Effective communities of practice offer a pragmatic solution to this issue through a variety of communications and activities such as:

- **Seeking Experience** – “Has anybody been the lead on a search committee? I’m doing it for the first time and could use some advice.”
- **Seeking Information** - “Anyone know where I can find financials recent IPOs?”
- **Problem Solving** - “With everyone’s tips on Excel lookups and pivot tables I think we have these reports figured out and done.”
- **Reusing Assets** - “I have this business plan I wrote last year. You’re welcome to use it as a guide for your own business plan.”
• **Coordination and Synergy** - “Our group is going to the Dean’s Executive Leadership event next week. Anyone else want to carpool with us?”

• **Discussing Developments** - “Here’s an outline of the new financial reform regulations. What do you think that means for CFOs and investors?”

• **Knowledge Management** - “Great questions you guys. I just did a search here in our network and see that a bunch of students answered most of these same questions last term.

• **Mapping Knowledge & Identifying Gaps** - “While most of these questions were answered here in our network by students last term, who can help get the rest of the questions answered?”

• **Building an Idea Bank** - “That’s another great idea for our final project. I just tagged it to make sure we consider it with all the other ideas later.”

### Challenges of Social Network Learning

While social networks enable many new types of social and situated learning, it also poses a number of challenges for students, professors, and universities. Below are a few areas that require attention.

#### Time, Presence, and Student Expectations

Just as we had to adjust to students having 24/7 access to us via email, so too – perhaps more so – do we have this challenge with social networks. Since the posts tend to be shorter, more frequent, and more inclusive than emails, it can become very overwhelming very quickly for both professor and students. Our strategies for mitigating problems in this area are 1) establish and articulate a clear and concrete policy of when students can see us participate in discussions or respond to direct questions. 2) Encourage students to not only post course-related questions to the whole group, but also answer each other’s questions if they think they know the answer. Not only are students more likely to get a quicker answer, it also relieves some of the burden from the professor to answer each and every question (many times.) Additionally, this strategy encourages students to take more responsibility for their own individual and group learning.

#### FERPA Compliance

The Family Educational Rights and Privacy Act of 1974 (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law protecting the privacy of a student’s “educational record.” Interpretations of what exactly constitutes an “educational record” can vary across different institutions, but generally, many consider any course or program related work by a student to fall into this category. Therefore, any post a student makes to a social network for a class or program may be subject to FERPA restrictions. Unlike a face-to-face discussion in a classroom, or any venue where the event is not recorded – a social network does capture that discussion such that it can be duplicated and distributed.

There are a few strategies we use to overcome this challenge. 1) All course or program groups on Yammer that are officially designated for required discussion or collaboration are set to be private to only enrolled students, professor, and/or TA. 2) While we do provide feedback on students’ posts, we do not ever assign or indicate allocated points or grade for the posts. 3) At the start of each term, we have students read and sign a simple Social Network Consent Agreement indicating they agree to have their work contained within our social network. This not only pertains to work posted within
our private course group, but also any course-related work they post to their followers or other groups on our Pepperdine network.

**Discussion Facilitation in a Flattened Hierarchy**

While most discussions within a specific course group facilitated by a professor remain civilized and orderly, there are ways in which one or several students can start controlling a conversation in an undesired direction. Naturally, this can happens in the classroom as well, but again, on a social network it is recorded and therefore can be easily shared outside the group and network.

**SOCIAL LEARNING AT PEPPERDINE’S GRAZIADIO SCHOOL OF BUSINESS**

The Graziadio School of Business and Management at Pepperdine University

The Graziadio Business School is AACSB accredited, respectably ranked, and internationally recognized as the largest graduate business school in Southern California. With several flavors of fully-employed undergraduate and MBA programs, most of our students are established professionals, many with families and other life obligations. As such, four key features tend to distinguish us over our top-ranked neighbor schools at UCLA, USC, and UCI: 1) small classes with 30 students or less 2) close and ongoing student-faculty relationships 3) largest alumni network on the West Coast and 30,000 graduates across the globe, and 4) access, convenience, and flexibility with five graduate campus centers and an increasingly engaged network of courses, students and faculty online.

**Blended Learning at the Graziadio School**

Like many leading business schools, the Graziadio School offers many classes in a “blended” format that consists of a combination of face-to-face and online class sessions. Each modality is ideally suited for different types of activities.

- **Face-to-face:** ideal for establishing relationships, building rapport and personal connections, team building, emotional support, specifying class and team norms, conflict resolution, and fostering a sense of community. Cognitively, face-to-face is well-suited for fast-paced, spontaneous and continuous dialog, quick detection and intervention with misconceptions, delineating and negotiating expectations, and time-based activities. Ironically, however, much learning research shows that face-to-face is not the best modality for straight information dissemination or lengthy presentations and lectures. Students retain a small fraction of what they hear while sitting passively for long periods of time. Notetaking while listening and learning can be more of a distraction than comprehension aid.

- **Real-time Online:** Meeting together at the same time with desktop audio and/or video conferencing and collaboration tools, students and professor gather together online from anywhere with their own computer and broadband connection. Real-time online sessions offer students greater flexibility – especially those who commute long distances, have demanding work or family schedules, or travel a great deal. Desktop conferencing and collaboration technology is often available to students at work and home, and can be a quick plan-B and sharp strategy for conducting class while traveling, bringing in guest speakers from down the street or across the globe, dealing with an unexpected schedule change or
disaster. Cognitively, students reap enormous benefit from small group activities and
discussions as well as the permanence of class sessions when they are recorded and made
available for on-demand review. Experientially, real-time online sessions help students hone
their 21st century professional skills. While the social norms may present an awkward
learning curve for some, many students thrive socio-culturally in the familiar richness of
online peer interaction, group networking and collaboration.

- **Asynchronous:** Neither time nor place dependent, students engage deeply and at their own
pace with course content, assignments, discussion threads, and activities. It is ideal for
students reviewing recorded materials or engaging deeply with course content such as
reading, practice exams, project work, or take-home quizzes. Asynchronous learning is less
defined by sessions as it is by extended periods, concrete guidelines, deadlines and
deliverables, constructive feedback, and frequent assessment. Historically, asynchronous
learning was limited to text, but new social and rich media tools have afforded a whole new
realm of engagement.

**Graziadio Learning Environment and Network (GLEAN)**
The Graziadio Learning Environment and Network (GLEAN) is “a network of people and tools to
connect, collaborate, discover, and learn – bit by bit.” Powered by Google Apps, GLEAN is a stable
framework that integrates and uniformly authenticates our traditional learning management system
with an ever-growing collection of useful Web 2.0 tools.

![GLEAN - Graziadio Learning Environment and Network Website.](image)
We regularly teach two different core classes in Information Systems and Technology Management: ISTM613 Technology and Operations is an 7-week, 2-unit course in our Full-Time MBA program while ISTM476 Information Systems in Business and Management is a 14-week, 4-unit course in our Bachelors of Science in Management program. In both programs, the baseline structure has us meeting once a week for a 4 hour class session. However, we teach both courses with a blend of traditional face-to-face and online – in which case the week is divided into three time blocks with specific activities to be completed at the end of each block. Students in the Full-Time program are generally in their late twenties or early thirties with three to seven years professional experience. Students in the Bachelors course are currently fully employed with a diverse range of professional experience. Neither class, by catalog definition, is a technical course about information systems, rather they address the question: Why and how should businesses use information systems to shape and support business innovation, strategy, operations, and processes?

**The Business Case Study: From Analysis to Application**

In business schools across the globe, the case method is a form of instructor-guided, discussion-based learning. Real world business cases introduce complex and often ambiguous yet very real scenarios — typically through an analysis of an important decision facing the story’s protagonist. Instructors ask questions, facilitate dialog and debate, and apply conceptual frameworks and analytical tools to interactively engage students as active participants in their own and each other’s learning. Using the case method, students develop and hone their analytical and decision-making skills while cultivating self-awareness, judgment, appreciation for diverse perspectives, a capacity to lead, and the courage to act amidst uncertainty and ambiguity. (HBS Core Principles) (Brookfield and Preskill 2005.) (Kolb, Baker, and Jensen 2002) While effective planning is key, the case method relies heavily on spontaneity and emerging “teachable moments” as instructors guide students toward discovery and learning at multiple levels. Harvard Professor Clayton Christensen once described case method teaching as “the art of asking the right question, of the right student, at the right time—and in the right way.” But questioning must also be accompanied with listening and responding. Good questions take into account 1) specific needs, interests, and abilities of the students; 2) the pedagogical goals of the class such as key learning objectives and why students should care, and 3) the content and class plan such as what is relevant, surprising, or confusing. There are four major ways in which discussion leaders use questions.

1. **Framing** - Guide students’ approach to the case (or segments thereof) by asking for an assessment, diagnosis, and/or recommendation for a course action.
2. **Following up**: Responding to student comments by probing for more depth, opening up the discussion to other participants and perspectives, or asking for generalization, reflection, or synthesis (conceptual links).
3. **Transitioning**: Bridging the current segment of the case with the next, sometimes measuring student comprehension before moving on.
4. **Handling special challenges**: Responding to student contributions that have the potential to derail the discussion, as when a comment is tangential, long-winded, incorrect, confusing, inappropriate, or offensive.

**Assignments and Activities**

The following assignments use a combination of Yammer and other GLEAN tools.

**Pre-class Warmup**

Weeks when we meet face-to-face, I post a 3-5 questions in Yammer related to the week’s case
studies and other readings. Students reply with their initial thoughts, questions, case diagnoses, ideas, reflections, experiences, arguments, examples, or other valuable contribution by the day before our class meeting. Face-to-face meetings are more meaningful when all students have not only completed the readings, but also had a chance to articulate and reflect upon their and their peer’s initial impressions, confusion points, and related experiences. When framing a case study, a poll is used to help illuminate the predictably wide variance in students’ initial assessment and recommendation for the situation presented. We keep an eye on their responses, “liking” posts that I determine are valuable contributions, thus providing a recognition and encouragement for the benefit of all students. At the beginning of the term, the instructor makes comments as well for assurance or additional guidance. Before we meet in class, I gather key points and questions made by students to serve as the launching point for our in-class case analysis, discussions, and activities.

**Asynchronous Class Engagement**

Expectations for online classes remain the same as they do for face-to-face, however, the four “in-class” hours are spread across the week in the three time blocks. Within each of those time blocks, students have flexibility in when they schedule their own engagement with course content, myself, and their peers. An Engagement Rubric concretely defines the expectations and assessment criteria of their contribution and participation. As the blocks proceed, posts are bookmarked that are exceptional contributions. After all three blocks are completed, conversations and the bookmarks are then reviewed to determine each students’ grade for that week’s discussions.

- **Block 1:** Like weeks with face-to-face meetings, we begin with pre-class warmup, however, the volume of questions is increased to 7-10 questions. One to three of those questions tend to be polls where students also explain the reason for their votes. Other questions help students frame the conflicts, issues, challenges, and decision points within the week’s case study. Often one to two questions ask them to relate their readings to their own industry, firm, and professional experiences. Lastly, one question asks “what questions do you have?”

- **Block 2:** Just as we would do in-class, student responses from the warmup questions serve as a launching pad for deeper and interactive analysis. One goal is to highlight tension points between varying perspectives already shared in the polls or other question threads. Followup questions also aim to illuminate the underlying assumptions, misconceptions, logic flaws, or information gaps students may experience. Most often, these require a return to the readings, subsequent research, deeper reflection and analysis of their own professional experiences. Often a particular response from students is singled out and built upon, challenge, or defend. Other times students are asked to compare, contrast, or synthesize responses from two or more students. Still other times ad-hoc small groups are formed and asked to discuss a particular question or situation amongst themselves – but openly within our course group while other students simply observe their interactive dialog.

- **Block 3:** After posting a summary of our discussion during Block 2, specific student responses are referenced that hit on or lean toward key concepts, theoretical frameworks, and learning objectives of the case, readings, and course. Students are asked to apply those same concepts or frameworks to other types of situations either in other readings, class discussions, or their own professional experiences. At the end of this final block, closing remarks are posted via a 3-6 minute video for a more personal touch. Here we summarize the key concepts, insights, and valuable perspectives they all contributed. We retrace their path through the case diagnosis, analysis, and recommendations while pointing out the assumptions, facts, or conceptual frameworks that lead them to one recommendations or another. This is also where the course of action really taken by the case protagonist is revealed. Lastly, new conceptual links are given that will be made in subsequent weeks and in future case studies, and discussions.
**Weekly Quizzes**

At the end of each face-to-face class, a 5-minute, low-stakes quiz is given with 4-6 multiple-choice questions regarding key concepts covered in the weekly readings, presentations, and/or discussions. After submitting their responses, students are directed to a short video highlighting the correct answers with explanation. Similar low-stakes quizzes are given at the end of an online week, however, they are encouraged to collaborate with one another as the questions tend to require a bit more research and/or analysis. Answers are not revealed until after the final deadline has passed. The quizzes are created in Google Forms with submissions collected in a Google Spreadsheet and graded automatically based on a designated Answer Key.

**Final Exam**

In last weeks of class, students are asked to post final exam essay questions they believe will adequately assess their and their peer’s learning and comprehension within the course. Students can then vote, via the Like button, which questions they believe best represent their understanding of the learning objectives. While this gives the instructor and classmates a good indication of what they should have learned, it is made clear that the faculty member will choose, modify or write the 6-10 exam question based directly on the course learning objectives. After they submit their exams, their essays are graded based on clarity, accuracy, and a demonstration that their performance and understanding meets the stated learning objectives.

**Public Presentations**

Because of the all-encompassing nature of information and the exponentially rapid development of technology, many important topics are not structured within our curriculum. It is assumed, however, that in their professional lives students encounter some of the missed themes -- be it new technologies, systems, trends, issues, or disruptions. In pairs or triads, students are asked to select a theme from a provided list or something of their own choosing, then create and post a short narrated Voicethread or video presentation in a school-wide “Business 2.0” interest group on Yammer. Members of this group are encouraged to comment or discuss their presentation. The presentation is graded based on a rubric delineating significance and accuracy of the content, organization and design of the presentation, clear and compelling articulation of their narration, and overall relevance and impact of their work.

**Business Case Team Project**

As a capstone project for this course, student teams work with a selected firm to develop a business base for the implementation and adoption of a new information system. The business case follows a prescribed template that students access, fill in, and submit via Google Docs. Working in teams, they are invited, but not required, to form a team group in Yammer for ongoing discussions. They also have the option to invite the faculty member to join their group. Doing this, enables the instructor to keep an ‘ambient eye’ on their discussions with intentions of staying quiet unless it is evident that their project plans go astray. In such a case, the instructor is able to quickly help them return to their central goals before they proceed too far off course. Their business cases are graded based on a rubric delineating potential value and effectiveness of their proposal, organization and structure of their document, clear and compelling argument for investing, and appropriate written business communication.

**Candid Feedback**

Traditionally, students submit a course evaluation at the end of every term effectively rating the course, learning experience, and instructor. While many critics of this practice point to its myriad of weaknesses, I find the biggest weakness of such evaluations is often the inability to resolve the issues after the course is completed and students are gone. Instead, borrowing from the practices of progressive businesses seeking immediate feedback after each interaction enables continuous
improvement. At the end of each class session, students are asked to take 2 minutes to fill out the same simple anonymous survey with four questions: 1) Was this a meaningful learning experience for you? [Likert Scale 1-5] 2) What worked well? [open ended] 3) What did not work well? [open ended] 4) What would you recommend I do differently next time? [open ended] The following in-class session, the issues raised are addressed indicating what, if anything, can be done to resolve them. When the issues are not resolvable or are not aligned with our course goals, the instructor simply explains why they cannot or will not be making any changes. Over time, we are able to engage in a conversation that, for the most part, enables us to know more honestly how students perceive their learning experience. At the same time, students feel listened to and validated – even when the changes they seek will not be implemented. Importantly, this data can be coupled with data regarding student learning outcomes over time creating a two-way feedback focusing the class on learning over time.

Specific Examples of Social and Situated Learning in the Network

What follows are several concrete examples of how our internal social network fosters social learning and communities of practices. The content of the conversations are not modified, but the names are covered and faces are changed to maintain students’ privacy.

Formally Structured Learning (From Content to Competency)
With a typical framing question for the week’s case study, Figure 1 illustrates how students are guided to establish their analytical approach as a warm-up to our formally structured face-to-face session scheduled to take place a few days or hours later. While this type of questioning is also typical of online discussion boards, we find student responses tend to be more to-the-point and conversational. Because this format of social network discussion threads is now quite common and it flows freely without multiple clicks to view or reply, students tend to actually read, respond, and learn from each others’ posts.
In figure 2, core concepts are reinforced when students are able to relate their course readings to not only their own experiences, but also those of their classmates. Figure 2 shows how the informal and non-hierarchical structure of social networks fosters student-initiated experiential inquiry and sharing within our designated discussion setting. Seeing their classmate’s contributions recognized by their professor as valuable, they too are motivated to share their related experiences.
Fig. 2: Student-initiated question toward deeper understanding of readings

Pulling from the “Peer Instruction” and “Just-in-Time Teaching” methods enabled by in-class clickers (Mazur), Figure 3 illustrates how polls integrated in a social network enable both the professor and students to see varying interpretations, arguments, logic trajectories, and assumptions made by the class as a whole. Students will often kindly disagree with each pointing out potential misconceptions or misguided strategies, while the instructor is now well-prepared to respond directly to students understanding and misunderstandings, and/or recognize the contributions of those who shed new light for their peers.
Accidental & Serendipitous Learning (From Stocks to Flows)

Weighed against a review of their class notes, a serendipitous conversation with an alumnus who had a similar learning experience some years ago will likely prove to be more effective in helping students internalize and apply key concepts from their courses. Not only is their understanding reinforced in this conversation illustrated in Figure 4, the learning approach discussed is also endorsed by it’s longevity and impact.
Fig. 4: Serendipitous learning occurs when students (and alumni) least expect it

**Personally-Directed Learning (From Predictable to Emergent)**

Figure 5 provides an example of how a student requiring specialized information to continue goes to the network to get help as quick as possible. Perhaps he also searched outside our network – but either way someone he may or may not know contributed to his direct and others’ indirect learning.


**Group Directed Learning (From Worker-Centric to Team-Centric)**

Figure 6 illustrates how the open, freeform, and engagement-orientated nature of a social network fosters group support and collaboration over student competition. The “like” function not only provides positive reinforcement but also a loose gauge of how helpful one’s contributions are. It also promotes encouragement and a cultural shift to open sharing and helpfulness.
Inter-Organizational Learning (From Experts to Networks)

Temporarily without immediate access to (or purposefully bypassing) a CPA, a student seeks insights from other students potentially in a similar tax situation. What ensues in figure 7 is a collective sharing of information and interpretation that, together, provides him — and the whole network — with a level of specific insight and expertise. While in this case, the student would be wise to also check with his CPA, he did receive in very short order a wealth of information and approaches to help him inquire further and/or make his final tax decisions.
Fig. 7: Multiple contributions collectively yield networked expertise

**Seeking Experience, Information, and/or Advice**

Figure 8 illustrates how students can get quick insights, experience, information, and advice in areas not directly related to their schoolwork, but nonetheless relevant to most of their classmates and followers. Such inquiries have also garnered the attention of administrative units on campus who provide services to students – in this case, the university division of Information Technology.
Fig. 8: Students seeking advice while informing each other and engaging administrative units

**Freely Sharing Tips**

Figure 9 shows how rich media tools and social networks foster a new culture of open contribution and helpfulness. In this example, a student used Jing to create a short video tutorial for his classmates and anyone on the network who might want to learn how to use keystroke shortcuts in Excel. His video contribution is part of a growing collection of student-created tutorials on typical things business students need to know how to do. By participating in a ground-level project, students not only are they contributing to the network’s expertise, but they also are strengthen their 21st professional skills, connections, and reputation.
Fig. 9: Students create and post helpful video tutorials for classmates and followers

**Coordination and Synergy**

Similar to how everyday citizens coordinate and self-organize for economic, social, political, and entertainment purposes, Figure 10 demonstrates how students can quickly coordinate and organize themselves in ways they all benefit. In this example, students are gearing up for a week-long school-sponsored Global Program in Brazil. Some have a few extra days before the program begins, others have more time after the program ends. In both cases, they are making travel plans with each other—even though most of them will not actually meet in person until the first kickoff meeting shortly before they leave.
Perceptions of Social Learning

As many people still think of social networks as a “social” activity (read: just for fun), we find some students (and faculty members) are a little suspicious of the efficacy of social networking for class when first presented. Certainly, most students do not want their professor (or students) friending them on Facebook. Nonetheless, within a few sessions, the value of such interactions reveals itself.

Professor’s Perspective

Below are a number of advantages and disadvantages of social learning from our perspective.

• Repeatedly seeing students’ faces right next to their names is a subtle yet powerful way to foster real-life recognition in class or hallways. Quicker and stronger personal connections are formed as everyone’s senses each others’ presence enabling greater familiarity and community.

• Because standard social networks interface provides only a few lines at the start of a status update or reply, traditional correspondence protocol such opening and closing salutations are most often skipped. Thankfully, students also tend to skip the all-too-familiar repeat of the question and other meaningless filler that sometimes clutters online discussion responses.
• Students quickly realize that they're absence from conversation is more noticeable, and are therefore more motivated to 'show up' for their peers – as opposed to showing up for the grade.

• Students who generally are very quiet in class due to shyness or language and cultural barriers are now more engaged in the group conversation in ways they are not face-to-face.

Students' Perspective

Below is a sample of student comments submitted via the candid feedback form. While most comments are very positive about the use of the social network, some students have not found value in its use.

• “I like the warm-ups on Yammer. I think that may be favorite part of the curriculum. It gets me to really think about my responses and allows up to have a discussion at our convenience. This gets my strongest endorsement and I hope other courses I take in the future see its value too.”

• “Definitely liking the social networking to take advantage of the benefits offered by collective intelligence. It’s really helped the collaboration and idea generation with my team.”

• “I really like using Yammer. Honestly, my first thoughts were that it would be annoying because I knew that I would forget to post. And of course, I did forget to post the first week. But once I did post and read other people’s posts, I saw the benefit of using it. Reading what other people say gives me more insight into what we are discussing and learning in class. Also, the questions that you post require some thinking. And I do not want to post something superficial and bland for the class to see. If this is a ploy to make sure I’m doing all the readings before class, it’s working.”

• “There is almost no value in using yammer. It drastically takes away from the learning experience.”

• “I like the pre-class warm up on Yammer, since as an international student, I am more comfortable with online discussion.”

• “Definitely the use of Yammer is working well for me. The first time I use the Yammer, it took me time to think about I should talk about here. Gradually, I find that Yammer provides a good platform for discussion. Just speak out what’s on your mind. Others will follow topic or you can learn something from other’s opinion. With no IT background, I always think it’s hard for me. But now I find IT is interesting and nowadays our life work cannot go without the support from IT. Yammer is a good start for me to get involved into this area.”

• The heavy reliance upon Yammer is slightly annoying. It seems that the E2.0 implementation within this class suffers from the same basic problem as most business applications: useful adoption. Yammer is simply a haphazard duplication of other established tools, and it seems that too much time is spent navigating tags and posts instead of doing meaningful work.

• “I think the warm-up discussion are working well for me. Whenever I read others' comments about our reading assignments and joined the discussion of the warm-up problems, I got a lot of benefits from our classmates. Most of the time, their viewpoints inspired me and allowed me to think different angles of the articles.”

• “The integration of the social network with class discussion creates multiple dimensions for thinking about--and engaging--the course content. I enjoy reading and studying the cases/articles, then interfacing online with my classmates prior to class, and finally discussing the topics during our class period. This "triangle" approach to the material makes the class more vibrant overall.”
Implications for our New Culture of Evidence

From Coverage to Outcomes
Beginning in the 1990’s and continuing today, there has been growing attention and debate about how institutions of higher education are held accountable for student learning. To some, this new focus seems centuries overdue. To others, it poses significant difficulty, disillusionment, and dissent. Nonetheless, accreditation standards developed and used by most regional and programmatic accreditors, including the Association of Advance Collegiate Schools of Business (AACSB) now incorporate the assessment of student learning outcomes or assurances as a central component of institutional and programmatic effectiveness. (AACSB site) While K-12 schools are evaluated based on national standards, the assessment of higher education is in the context of the institution’s or program’s own mission, stated learning objectives, and identified means of assessing student learning. With that latitude, there is a general trend toward three multiple domains that institutions must provide learning outcome evidence. (ETS culture of evidence pdf)

It is our contention that a social networks that also serves as a self-generating repository, can be used for efficient and effective data collection.

1. **Workforce Readiness and General Education Skills** - includes a basic set of skills and abilities including verbal reasoning, quantitative reasoning, critical thinking, problem solving, and communication skill (including writing and sometime presentation and multimedia as well.)

2. **Content and Discipline-Specific Knowledge and Skills** - while some professions, such as accounting, financial advising, and legal counsel require professional certification, most academic disciplines rely on the degree as evidence of mastery of the core set of competencies. In general, an MBA graduate is expected to have also learned effective business strategy, domestic and global forces affecting organizational success, how to evaluate the financial position of a firm, how to identify and evaluate ethical dilemmas related to business decisions, and how to use information technologies and systems in the design, management, and innovation of organization strategy.

3. **Soft Skills** - given the nature of today’s knowledge economy, graduates are also expected to learn non-cognitive skills such as the ability to work in teams, be a creative problem-solver, and communicate effectively within a diverse learning and work environment.

From Delivery to Engagement
In addition to learning outcomes, there has been mounting recognition that students are not passive recipients of delivered knowledge, rather they too are active agents in their learning. As such, characterizations of learning in higher education must also consider the individual student’s role in this process. Student engagement, then, is a measurement of the nature and extent to which a student uses the resources provided by the institution and participates in their own, and by extension, their peers, learning process. It serves as a valid indicator of motivation and habits that carry over into other academic or professional settings. For the last decade, the National Survey of Student Engagement (NSSE) has annually surveyed college students to assess the extent to which they engage in educational practices associated with high levels of learning and development. Forty-two questions attempt to capture many vital aspects of the student experience.
While student surveys can be valuable data collection tools, it is our contention that increased use of social networks and other Web 2.0 tools will enable us to capture primary data to measure student engagement, rather than relying solely on student reporting. We describe this potential within each of the five benchmarks NSSE has established as effective educational practice.

1. **Levels of Academic Challenge** – Primary data providing evidence for engagement is created as students prepare for in-class discussions by responding to Warmup Questions, asking questions of their professor and/or peers, reflecting on their readings, making judgments about the value of particular resources, analyze case studies, and collectively solve problems, and more.

2. **Active and Collaborative Learning** – As students actively interact and collaborate with their peers in a social network, they are developing new skills to deal with increasingly complex, messy, and ever-changing problems they will encounter in their professional lives. Specifically active collaboration is measured by activities such as; asking questions or contributing to class discussions, making a class presentation, working with in groups and project teams, providing peer feedback and/or instruction, discussing ideas and new knowledge with others outside of class or school.

3. **Student-Faculty Interaction** – Evidence of student engagement is also created on social networks as faculty serve as experts, mentors, and role-models for students in and outside of class. Student engagement in this process is measured by activities such as: discussion of faculty feedback, interaction around career or further academic plans, work on committees, task forces, internships, or other research projects.

4. **Supportive Environment** - student performance and satisfaction increases when faculty and schools are committed to their success as well as positive working and social relations among different groups within the academic community. Again, evidence of student engagement is created on social networks by formal and informal interactions with their peers, professors, and administrative personnel. Other indicators include campus support for academic success, coping with non-academic responsibilities, as well as support to thrive socially.

5. **Enriching Educational Experiences** - Student learning becomes more meaningful and useful when it is experienced within a socially holistic and experiential environment. Evidence of student engagement is measured by conditions such as: interacting with a diverse population of students of different race and ethnic backgrounds, religious beliefs, political opinions, ideologies and values, and socio-economic backgrounds. Other indicators include: use of technology to discuss and complete assignments as well as participation in internships, independent study, co-curricular activity, and learning communities.

**Conclusions and Implications**

Using social media, the ability to apply outcomes-based rubrics to teaching and learning enables immediate feedback and adjustment of the learning process in a fully interactive and relational way. This feedback mechanism also teaches the process of knowledge management and constructivist learning which a business student will be using in their everyday business experience. Importantly, faculty can deliberately decide how to enhance learning by explicitly considering what they are bringing, what the students are bringing and map this onto a desired process focused on specific learning outcomes. Not only does this social media process build learning capacity in the student, it is also highly measurable and feedback is immediate. Therefore, there aren’t the attenuated feedbacks in the traditional learning process. This ongoing process informed by learner analytics as well as capacity building for the learner and the faculty is an active demonstration of 21st century business practice and learning in a knowledge economy. The downside is that the time-intensive
nature of this process and also a new balancing of the “art” versus the “science” of teaching. As comedian Douglas Adams (Adams, 1999) once said, “Anything that gets invented after you’re 30 is against the natural order of things and the beginning of civilization as we know it until it’s been around for about 10 years when it gradually turns out to be alright really.”

References


