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Inventing the Future: Using Social Media to Transform a University from a Teaching Organization to a Learning Organization

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In the corporate world, with its global, competitive environment, many firms have become learning organizations in order to survive and thrive. Similarly, 21st century universities that succeed will be lean, flexible, and nimble, enabling them to cross geographic and time boundaries, and to better meet the needs of future generations. The convergence of disciplines, along with the large number of interdisciplinary and multidisciplinary efforts both scholarly and curricular, is one of the major motivations for seeking to build a learning organization in academia. The new media, with its reliance on instantaneous and rapid interconnected and collaborative communication, can in a cost effective manner direct the transformation of an organization into a true learning organization.

KEYWORDS: Social media, social media, learning organization, convergence, the five c's, convergence of disciplines, future of academe.

INTRODUCTION

The observation that "big university campuses will be relics" was made by Peter Drucker more than a decade ago (Lenzner and Johnson 1997). Drucker's prediction may have been somewhat off the mark but there is no question that we are seeing a great deal of change in academe, including: the huge growth of distance learning, technological changes (smart classrooms, Blackboard, etc.), the growth of for-profit universities (*e.g.*, the University of Phoenix), decreased government support for universities, the rising costs of education, the globalization of education, the growing number of working adults who need lifelong learning to avoid obsolescence, and the convergence of disciplines. In fact, today's universities must continually reexamine and transform themselves. Several years ago Andrews *et al.* (2000) urged academia to respond to the "wake-up call" and recognize that inflexibility and the failure to respond quickly and decisively to environmental change can be dangerous.

What kind of world are today's budding academics lurching, lumbering, or sometimes racing towards? How will academe have changed in 20 years? 10 years? Five? How about one? Alan Kay, computer science pioneer, famously said in a moment of frustration in 1971 "Don't worry about what anybody else is going to do… The best way to predict the future is to invent it." The purpose of this paper is to imagine new structures for the university of tomorrow using technologies that are already here today, social media.

WHAT DOES THE FUTURE HOLD FOR ACADEME?

The academic world must face the difficult reality that just as any inefficient organization has trouble surviving in a very competitive global environment, so too will institutions of higher education have difficulty surviving in this new environment made harsher with the recent economic crisis. The Internet, with its attendant globalization, democratization, and empowerment of users, has changed the rules of the game for academe as well as in most other arenas of modern life. Today, just as a small bookstore in Dubuque finds itself competing with the most powerful bookseller in history, Amazon.com , independent colleges all over the country may also find themselves in a similar position.

Another sea change we have been witness to is the convergence of numerous academic disciplines (Friedman and Friedman 2006). The doctoral student of today–tomorrow's junior faculty member–will have to "fit" into one department while at the same time develop expertise in many areas.

His or her research must be versatile and not necessarily focus on one narrow area. Increasingly in academic publishing we see a preference for interdisplinary work. While the modern departmental type of structure is rather new and dates back only to the 1890s (Klein 1996: 53), it may already be somewhat antiquated. Indeed, Kolodny (1998: 40-41) asserts that university departments must "evolve into collaborative and flexible units." So, are we actually seeing departments changing into collaborative units more concerned with spreading knowledge than protecting turf? For the most part, the answer is still no. As Edwards (1999: 20) notes, "the actual elimination of departments is extremely rare and usually generates a wave of unflattering national news, so the substitution strategy is driven toward less visible, more surreptitious methods."

At the very least, new faculty in tomorrow's academic environment will have to learn to be quick to respond to changes. Disciplines are changing very rapidly and popular fields leading to desirable jobs can fall out of favor very quickly. For example, there are economics departments where more than half of the economics courses offered in the recent past are inactive or have already been withdrawn. Interest in courses such as Marxian Economic Analysis, Welfare and Social Security, Trade Unionism, and Economic Geography has long been on the wane. Faculty members with expertise in the Eastern European economies have found it difficult to conduct research when the subject of said research has evolved into a new kind of creature. As another example, simply knowing how to program in a large number of different programming languages was once considered a valuable knowledge base for an academic. Back in the late 1990s, computer science programs were thriving and demand for programmers (remember Y2K?) was enormous. Colleges everywhere were desperately seeking new faculty to teach large numbers of students who wanted to become programmers. A few years later, many of these faculty had no classes to teach. Many programming jobs had been outsourced to locations all over the world, and computer science departments had to rethink their mission. Unfortunately, most colleges do not have the sort of structures in place to behave like the corporation that can add and delete "products" quickly.

Duderstadt (2000) suggests that the university of the future will be divisionless, *i.e*., there will be many more interdisciplinary programs. It is no secret that the most "provocative and interesting work" done in most disciplines is interdisciplinary, where faculty members from different disciplines work together to solve a problem (Edwards1999: 19). It is even quite possible that students graduating from a college today are irrelevant if all they know is one discipline (Duderstadt 1997). That students themselves know this is evidenced by the trend towards multiple majors (Lewin 2002). As students have been increasingly thought of as consumers they will no doubt

contribute to bringing about changes in the way institutions of higher learning function, demanding that the technological tools that they already use be incorporated into the academic environment.As an outgrowth of the student-as-consumer orientation, students will no doubt contribute to bringing about changes in the way institutions of higher learning function; students will themselves demand that the technological tools that they already use be incorporated into the academic environment.

Of course, forward-thinking academic institutions must realize that there are great changes ahead for higher education; unfortunately, it is not easy to change the culture of any organization. Certain strides have been made. Twenty years ago many faculty members did not use computers. Today, there is hardly an academic who does not use a computer for teaching, administrative and research purposes. In an article in The New York Times the experience of professors and students involved in a web-based course offered in 1997 is summarized in one word: "frustration" (Mendels 1999). While there are those who oppose web-based teaching, and who are suspicious of or slow to adopt new technologies, more and more faculty and administrators will recognize that advances in technology enable universities to transform the learning environment in a positive direction in line with progressive pedagogies. In the corporate world, many firms are cognizant of the fact that the major asset of an organization is the collective knowledge of its employees. Firms that wish to build on this asset and characterize themselves as innovative, inventive, and nimble in an increasingly global and interconnected competitive environment are embracing technologies that enable them to become *learning organizations.*

THE LEARNING ORGANIZATION

Peter M. Senge popularized the concept of "learning organization" in his seminal 1990 book *The Fifth Discipline* (Senge 1990). This book sold more than one million copies and was identified as a seminal management book by *Harvard Business Review*; Senge earned the title of 'Strategist of the Century' and was acknowledged by the *Journal of Business Strategy* as one of 24 individuals who have 'had the greatest impact on the way we conduct business today' (Smith 2001). In fact, "organizational learning," which stems from a body of research focusing on the capacity that collective entities have to learn, has become the mantra of many companies (Argyris and Schoen 1996).

What does it take to become a learning organization? Pedler et al. (1991: 1) state "A learning company is an organization that facilitates the learning of all its members and continually transforms itself." Garvin (1993: 80)

believes that new ways of thinking at the organizational level are possible and that a learning organization is "an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights."

Friedman *et al.* (2005) summarize what one should expect to see in a learning organization. First and foremost is the belief in continuous and collective learning, knowledge sharing, and collaboration. Knowledge sharing is awkward to implement in pyramid-shaped organizations with tall hierarchical organizational structures, i.e., characterized by numerous layers of management. It works much better where there is a flat organizational structure with a relatively short chain of command. This allows information to flow in all directions, even from the bottom of the organizational pyramid to the top. Also, there has to be a concern for people and respect (and empowerment) for employees. Diversity is seen as a plus since it allows for new ideas. The individuals that make up the organization have to learn from past experience and mistakes—experience is the best teacher—and learn from the experiences of others in the organization. There must be a willingness to experiment and take chances; this means that there has to be a tolerance for failure. There must be a commitment to lifelong learning. The organization must also develop the ability to adapt to changing conditions, *i.e.*, an ability to renew, regenerate, and revitalize an organization.

What does it take to become a learning organization? A firm that wishes to create a learning organization requires an infrastructure and organizational culture that encourages and allows the free flow of knowledge, ideas, and information; one that has open lines of communication so that everyone in an organization has access to this accumulated knowledge. Also, the organization has to be one where one employee will compensate for another's weaknesses, as in a successful sports team. Casarez *et al.* (2009: xxii-xxiii) observe that many firms make the point that "Our employees are our most critical resource." However, they do not have a mechanism in place for employees to provide ideas on how to improve the business. Vital knowledge remains in the hands of a few employees and when they leave the organization, it may be lost. According to Casarez *et al.* (2009: xxiii) Toyota and Google have been extremely successful because they tap into the collective knowledge of employees. At Toyota, an employee who thinks of an improvement that might help production, may stop the entire production line. Ideas emanating from employees are just as valuable as those coming from top management.

ARE UNIVERSITIES LEARNING ORGANIZATIONS?

There is a growing body of evidence indicating that schools in general are not learning organizations (Conzemius and Conzemius 1996; Fullan 1995; Shields and Newton 1994; Isaacson and Bamburg 1992). When Senge was asked by O'Neill (1995) whether or not schools were learning organizations, he replied "definitely not." Universities have many of the same problems as primary and secondary schools despite the fact that scholarly research is stressed and even rewarded (tenure, promotions, merit pay, etc.). How many universities are known for knowledge sharing among faculty? Universities are probably better known for turf battles than for communication and collaboration across disciplines. Loyalty is usually to the department or discipline even if it means that the university or even, sometimes, the students will be shortchanged. Freed (2001) in offering advice on how universities can become learning organizations points to the structural and cultural road blocks: a tenure system that encourages independence versus interdependence, and educational model where discipline specific knowledge is rewarded and old systems (departmental structures, academic semesters, course credits) are firmly in place and rarely questioned. Smith (1993: 23) asserts that "Academic departments serve as organizations that exhibit all the segmentary politics described by anthropologists: segmentation for largely demographic reasons, balanced opposition among themselves, and unitary resistance to a superordinate entity, usually the college or university as a whole."

Harrington (1977) believes that departments encourage loyalty to the discipline rather than to the university. It seems that very few universities would qualify as learning organizations. It is quite ironic that teaching organizations do not know how to learn. Kezar (2005) classifies the idea of a learning organization as another management fad, or quick fix business technique when it is applied to the university environment. She cites the skepticism amongst senior administrators, divisions among groups and hierarchical relationships among faculty, students and administrators (which are compared to caste and patriarchal systems) as well as a fundamental confusion in understanding the traditions and applying the principles of organizational learning and the learning organization approach to higher education.

We believe social media provides the technology necessary to begin to dismantle the obstacles researchers have pointed to that prevent making universities learning organizations. Clearly, knowledge sharing is an essential component in the creation of a learning organization. How can we begin to transform our "teaching organizations" into learning organizations? This paper now looks at the potential of today's social media technologies to accomplish this transformation. After all, the social media technologies

encourage the sharing of knowledge, enable collaboration, and can foster a sense of community and connectedness in any organization. In what almost seems like an accidental solution to a thorny structural problem, the social media technologies may offer the perfect infrastructure for establishing a learning organization that embraces many of the goals of higher education.

THE FIVE C'S: USING SOCIAL MEDIA TECHNOLOGIES TO CREATE A LEARNING ORGANIZATION IN ACADEME

Over the past few years, the term *social media* (sometimes called *networked* media or *new* media) has been used ubiquitously in many different ways. Computer-mediated communication and collaboration (e.g., email, chat room, IM, discussion forums, teleconferencing, podcasting, social bookmarking, social networking, avatar-based virtual worlds, VOIP, mobile telephony, blogs, wikis, RSS feeds) have already changed organizations in profound ways. In addition, due to widespread digitization, we see more *post-purchase* consumer behavior in the form of, e.g., mashups, media sharing, and the modding of digital media.

The primary distinguishing characteristics of the new media, what the authors refer to as the five C's (Friedman and Friedman 2008), are: communication, collaboration, community, creativity, and convergence. We now investigate how each of these various aspects of the new media technologies can be used to transform yesterday's teaching organization into the learning organization that can be the future of academe.

Communication

Of course, new media–much like "old" media–are all about communication, and this communication is often networked. For example, blogs link to other bloggers' posts; and we often see what is referred to as "conversational blogging" (Efimova and de Moor 2005). Also, unlike the old media, say, television, where the audience sits passively in front of the set, this communication is bidirectional. With social media, the audience is expected to participate. It should be noted that much of this technology, and associated applications, are free of cost to the user.

In line with the concept of organizational learning, universities that want to be innovative have to allow information to flow in multiple directions, including from the bottom to the top, otherwise they will stagnate. Social media enhances many of the ways that faculty and students already communicate and allows for communication to evolve in new directions. The Columbia Center for New Media Teaching and Learning (CCNMTL), for

example, collaborates with faculty to enhance their teaching and more effectively engage students and their different learning styles. Lectures can be downloaded as podcasts. Students can listen to lectures later on on their ipods for example, while driving home or traveling. Interactive case studies can be used. Students can click on embedded links in instructional materials for more detailed explanations. CCNMTL has broadened the university's presence on You Tube making lectures, conferences, and special events available to students and alumni. Tufts University uses its Facebook page to recruit students. Student moderators communicate with prospective students, and one can find links to blogs run by administrators and others. At Itaca College prospective students can have virtual chats with admissions officers.

Social media allows for intra- and inter-university communication amongst and between faculty and students. Blogs are a good way for many faculty members to express opinions. They can be set up so that everyone presents an idea; in fact, the junior faculty may be asked to start the process. On a broader, level, all junior faculty can use blogs to publish their ideas and disseminate their research. It is an easy way for faculty to be part of the academic blogosphere. Some universities have created scholarly community blogs, assembling all the public blogs on campus under one address. For example Baruch College of the City University of New York created Blogs@Baruch (http://blsciblogs.baruch.cuny.edu). Microblogging (on Twitter and Facebook for example) involves the posting of brief updates. It allows professors to announce course updates and for professors and students to continue a conversation that originated in a classroom.The presidents of Ohio State University and the 10 University of California campuses regularly use Twitter.

It makes sense that communication occurs using those tools that students, faculty and other university personnel are most accustomed to using. Email of course is a major method that faculty uses to communicate with colleagues and students. As many email programs such as Gmail, Yahoo and AOL have instant chat messaging functions this too can be used to facilitate communication. Discussion boards, such as can be found on Blackboard or other programs that are course based, are another means that allow for communication between faculty and students.

Cell phones are one of the most common means of communication and increasingly, with the Apple iPhone and the Google Android Phone leading the way, they have many functions of personal computers, vastly expanding the way in which they can be used. In fact it is estimated that by 2020 they will replace personal computers as the primary means of connecting to the Internet (Horizon Report 2009). Many universities already take advantage of the social media capabilities of wifi enabled cell phones. At Stanford

University a group of undergraduates designed iStanford, an application for the iPhone that ties in directly to the school's computer network. Students can see campus maps, locate friends, get course listings, and see the campus directory. Students can register for courses, add and drop courses, and see grades. In February 2009 GPS functions are being added to help students see what is happening on campus relative to where they are. For instance, it will be possible to precisely locate the shuttle bus. Tom Black, Registrar and Associate Vice Provost commented that Stanford used to install a new application and then modify it to meet students' needs. He says that allowing students to design what works for them is far better. "As they walk around campus they know if it works. And if not other students will tell them." iStanford was named by Time Magazine as one of the best inventions in 2008 (Krieger 2009).

The 2009 Horizon Report identifies 6 areas of emerging technology that will have a significant impact on higher education. Mobile devices are the first technology listed with adoption into the mainstream of institutions expected to happen before the beginning of 2010. SMS messaging, used heavily by students can be a good first means of transmitting information to the student body or to select groups of students. . Universities are sending emergency SMS notifications and are using Twitter and Facebook in the same manner to quickly reach students on their mobile devices. Applications similar to the iStanford model can be adapted for all cell phones with wireless capabilities (not just the iPhone as is the cell phone of preference at Stanford) and put into practice with collaboration from students on what information they most need access to, at most colleges and universities.

Most universities have a university-wide Facebook page. Press releases which in the past were picked up only by outside sources, if at all, can now be posted on Facebook, can be put on Twitter, and sent directly to bloggers. Within a university there may be multiple accounts specific to schools and departments. Groups based on a common interest can easily be created on Facebook. Students often take their own initiatives to add classmates as friends, and to "facebook" each other when they need to discuss something related to class. This allows students to widen their social network in that friends can send a "friend request" to someone else's contacts. Facebook is a tool that can be used by faculty to link members of a particular class. Once a Facebook page is created instant messaging can be shared by members of the group who are on Facebook. Personal messages can be sent from one group member to another and members can post information publicly on other members' walls.

Skype, offering free video conference calling and instant messaging, allows faculty to communicate with other faculty anywhere in the world. It can also be used with students in lieu of actual "office hour" meetings while

still providing the advantage of personal contact. Students who are often reluctant to see professors in their offices may be less intimated using Skype. For online courses it allows groups to meet, have discussions and stay connected outside the classroom.

Students demand for more courses taught partially or fully online is strong. While many academics remain in opposition to distance learning, it will become harder with social media capabilities to make the argument that online learning is somehow impoverished. Curtis J. Bonk (2009) argues that distance learning can finally bridge the educational divide with technology and open and shared content. If established, credentialed institutions fail to heed the call for online courses and degree programs, advantages will be gained by the for profit institutions. Michigan State University offers online courses in its educational psychology and educational technology doctorate. While online learning does have limitations it also has advantages. Sun Microsystems' Project Wonderland's Education Grid has developed a program for virtual classes. With Education Grid one can build customized learning worlds. Boston College, the University of Essex, The University of Oregon and Saint Paul College have been pioneers in this new technology. Online courses can incorporate digital library collections and other institutional resources (Sun Microsystems Press Release, 2008). Immersive Education Initiative is an international non-profit institution made up member universities, colleges, research institutions and companies, and is set up to "define and develop open standards, best practices, platforms, and communities of support for virtual worlds and game-based learning and training systems." Capabilities for online courses based on the Immersive Education technology created by this institution include interactive 3D graphics, commercial game and simulation technology, virtual reality, voice chat, and rich digital media with collaborative online course environments and classrooms. Immersive Education Initiative says the technology "gives participants a sense of 'being there' even when attending a class or training session in person isn't possible, practical, or desirable, which in turn provides educators and students with the ability to connect and communicate in a way that greatly enhances the learning experience" (Media Grid News 2008). Both Education Grid and Immersive Education technology are free.

Increasingly academics will use social media to keep in touch with others and to keep up with developments in their areas of interest. A librarian says she used to look at conference papers if she wanted to see the "most recent professional thinking as they tended to be more recent than journal articles." She continues, "Now I look to blogs for liveblogging of library events, slides from presentations and ideas that are germinating. Twitter, Meebo etc., gives me access to much more immediate professional thought (and a lot of fun noise also of course)" (Greenhull 2007).

Conferences used to be open only to those registered participants who attended sessions in which they were most interested. This often meant traveling long distances by plane, staying in hotels, and sometimes choosing one session out of many interesting but overlapping sessions. Though papers of missed sessions or sessions that one was particularly interested in could sometimes be purchased or otherwise obtained, most often one had to be there and had to be a member of a particular association to gain access to a given presentation. Increasingly we will see live video streaming of conference sessions or the ability to view sessions at anytime, simply by visiting the conference website. Educause's January 2009 Participation and Collaboration conference and its 2010 Learning Environments for a Web 2.0 World have done just this. After the conference, videos can be accessed through archives and can be seen via podcasts. Such a development expands the availability of knowledge once limited to a select group of specialists, making it available to students, scholars and interested individuals anywhere in the world.

Collaboration

Social media enable collaboration over the Internet. Individuals can engage in dialogue with one another, in pairs or in groups, and in formal meetings, expressing and sharing opinions using various synchronous and asynchronous modalities. Video conferencing, instant messaging, blogging, microblogging, live presentation, screen and document sharing, annotation and recording are some of social media options available in support of collaboration. There are many collaborative possibilities in the classroom. Skype can link students from different locations enabling them to meet and to exchange ideas and to work collaboratively. Some universities use Skype to enhance language learning, pairing native speakers with students' studying a language.

The old way of collaborating on a journal article required numerous emails sent back and forth from one author to the other (and more), all with the paper as an attachment. There reaches a point where there are so many versions of the paper that it becomes difficult to know which version is the latest. This method results in a tremendous waste of resources in terms of time, inbox capacity, bandwidth, hard drive space, etc. and also limits the size of the group. With a collaborative technology like Google Docs or Adobe Share, there is only one document and the authors all have access to it. Faculty can use Google Docs as a place to post their papers thus allowing other faculty (those that are invited to join) to suggest changes to the document. If the faculty at a university work together as a team and want their institution to flourish, they should be more than willing to provide helpful

criticism. These collaborative technologies are simple to use. With Adobe Share one selects files to share and specifies who they can be shared with by adding email contacts. One can specify if others can gain access or if the files are limited only to the members. One can embed files in a blog post or web page for easy access.

A wiki enables even a huge group to work on one project which they collaboratively edit, even, say, a research paper. The best known example of a wiki, Wikipedia, the online encyclopedia, demonstrates how successful this kind of collaboration can be. Edmonds (2006) considers wikis a valuable tool for the business world since they provide "an opportunity for organizations to improve collaborative work and knowledge sharing." They are also a valuable tool for the academic world. Consider a university with an internal wiki for every course, especially multiple–section courses taught by a number of different faculty. Faculty would submit their best ideas on how to teach the course and their best lectures. They could even submit brief lectures on YouTube and link to these video clips. This site would at the same time be a resource for students as well as for faculty teaching the course.

Wikis can be used to foster collaborative student writing where students can receive feedback from their peers, rather than at best perhaps just one correction from a professor. The Chemistry department at UCLA developed Calibrated Peer Review (CPR). Students submit assignments and review classmates' assignments using guidelines set by their professor. With podcasts multiple publishers can add content, allowing faculty and students to collaborate on projects.

The world of publishing is rapidly changing and faculty now have the option of authoring textbooks together on collaborative networking sites such a Flat World Knowledge and We Book. Open content collaboratively authored texts and open course notes can be worked on by several faculty who teach a given course. Faculty from all over the world (or at least from the same university) could work together to write their own textbooks. The cost of such a textbook could be free or very nominal to students. Departments might be able to use these type of "textbooks" as a way to generate revenues. It is also possible to allow students to collaborate on a course based text, and on class notes, to increase their engagement in a course.

A group, for example a class, can act as a user to assemble and retrieve content collectively. Zotero operates as a personal on-line card catalogue, allowing one to organize web-based materials. This can be assessed by individuals collaborating on a project. Flickr allows for sharing of photos or other images. Swurl and Friendfeed allow one to post online porfolios of their work. Blogs, in general, have a limited role in collaboration. However, a single blog may be shared among a group of individuals and sometimes a blog may be used for group work. Pingback allows a user to connect blogs

to one another. Microblogging (on Twitter and Facebook for example) can be useful in that it allows people to post new ideas for access by others.

Community

The diverse social media tools we have discussed can be used to create and sustain communities of like-minded individuals, providing a space for them on the Internet to meet and collaborate, synchronously or asynchronously (Friedman and Friedman, 2008). Academics can be compared to remote workers, often operating quite independently from colleagues. As each faculty member has a different schedule, unique interests, and as he or she may teach courses that are quite different from those taught by others, especially in large departments, it is very likely that the paths of most department members rarely cross. Outside of one's own department, contact with other faculty is even more sporadic. This configuration of loosely connected yet highly knowledgeable and well-connected individuals can gain advantages and indeed could bestow advantages on students should it decide to work toward becoming a community. New media enables the formation of social networks with information flowing through the electronic links between community members. The major social networking sites such as Myspace and Facebook are used by most students for socializing. They could be used by faculty members in courses, for advising, and to maintain contacts with students, alumni, and with colleagues across the country and across the globe. Virtual communities such as SecondLife can also be used by faculty and students to conduct "meetings" online, as well as to create simulations. Some companies already use virtual communities to mentor and train employees. A virtual community can be used by academic departments in the same manner, for example, with the new faculty mentored by the senior faculty.

Sun Microsystems has built an open source experimental software toolkit similar to Second Life. Project Wonderland, used in its own company, can be downloaded for free. It can be customized to the needs of the institution or department but as such initially requires technical programming knowledge. Once it is set up it is easy to use. It features capabilities for several people to engage in audio conversation with the use of avatars. It replicates a meeting space and allows the group via a computer to share live desktop applications such as a shared web browser and document sharing. One can switch to private conversations if the group decides to break off into smaller units. Individuals, if desired can connect in via telephone—for example if one member is in transit, he or she can voice chat with the group as they meet in a virtual space.

Departmental meetings in virtual worlds where avatars represent faculty members might encourage the faculty to present more innovative ideas. Virtual communities are being used to help the autistic learn to communicate better (Saidi 2008). One would think they might help junior faculty, as well as those who have become rather bored by routine departmental meetings. It could also encourage the formation of interdepartmental and interuniversity communities. Communities of scholars within and across disciplines are starting to flourish, for example, the Social Science Research Network (http://ssrn.com/). More advanced social media technologies like social networking and social bookmarking could be put to good use here as well.

Creativity

The social media invite and encourage creativity. Because these are not only one-way technologies, the so-called "audience" is expected to be ac¬tive and creative. Thus, consumers of digital media do not simply, read, lis¬ten, view, or play content. They also edit, mod, and create mashups. Mashups are digital media comprised of any combination of text, graphics, audio, video and animation, taken from more than one source. Look at the kind of creativity that has been unleashed by YouTube, blogs, and wikis. Sometimes, it seems as though everyone is a journalist. Indeed, anyone with a cell phone can take pictures of news when it happens. Imagine how exciting a university community can be with faculty, students, staff, and administrators all generating creative content. Students can be empowered to take an active role in the learning process, by being expected to participate in blogs, to post their own "findings" relative to a question or group project on a "lifecasting" site like Swurl or Friendfeed. Swurl can be described as a scrapbook, using RSS feeds to organize pictures, blogs, links, and videos. Through created for individuals it can be used by groups. Students can even be invited to join in and to write a collaborative text for the class which would enable them include their own examples and elaborations on themes decided upon by the professor or even by the class members.

Convergence

It seems that mash-ups of all types (software, digital media, etc.) are everywhere. A large number of users are creating mash-ups to create a whole that is greater than the sum of its parts (e.g., a website that combines real estate listings with crime statistics for each location). Indeed, the social media has resulted in many types of convergence. These include convergence of technology, convergence of media, convergence of consumption, and convergence of roles. To see a good example of convergence of technology, simply look at your phone. It may also be a computer, camera, PDA,

and who knows what else. The latest computers are also television sets and hook up to cable. We are also seeing the convergence of media. The *New York Times* is more than a newspaper (old media); it has blogs, an online presence, and owns about.com. There is even convergence of consumption, with consumers using several media simultaneously and, for example, email a picture from their telephone. And, with all the user-generated content out there, we have a convergence of roles, where it is sometimes hard to tell the difference among producers, consumers, distributers, etc.

In academe, a move is underway toward a convergence of disciplines. Perhaps an understanding of social media will help faculty gain insight into the phenomenon of convergence. Interestingly, a course in "New Media and Business," recently developed at the college of one of the authors, is cross-listed among three departments.

CONCLUSION

The mashup–standing in for the many forms of convergence noted above–may be considered the metaphor of choice for today's social media technologies. In a similar vein, the convergence of disciplines, along with the large number of interdisciplinary and multidisciplinary efforts both scholarly and curricular, is one of the major motivations for seeking to build a learning organization in academia. Social media, with its reliance on interconnected and collaborative communication, can direct the transformation of an organization into a true learning organization where participation and social interaction empower all members.

If, in fact, the social media technologies can transform our antiquated teaching organizations into learning organizations, perhaps next year's junior faculty—and indeed students—are the ones who will be able to introduce such change. After all, these are the folks who are already conversant and comfortable with Internet-based media, use Google for research, write or contribute to blogs, look things up on Wikipedia and Dictionary.com, check Facebook regularly, post ideas on Twitter, use Skype for conference calls, and get their daily news online. Universities that are serious about establishing a paradigm of knowledge sharing and continuous growth through lifelong learning should encourage faculty to use social media towards accomplishing these goals. Clearly, transforming colleges into learning organizations will not solve all our problems, but it will put the infrastructure in place to generate those solutions. One thing we know for sure is that the solutions can come from anyone, anywhere, at anytime: from the current undergraduate class; from today's doctoral student; from tomorrow's junior faculty member. Social Media provides the tools and resources to stimulate

new ways of thinking and to move effectively across new frontiers which open the door to communication, collaboration, community, creativity, and convergence—those features which can truly build a modern, global and inclusive learning organization. In the face of severe financial cutbacks universities have no choice but to take advantage of these cost effective technologies that will enable them to keep pace with the rapid changes in our world and to create truly interdisciplinary and globally connected learning environments. If universities embark on this journey it will change not only individual institutions but the higher education landscape.

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