

On the Internet

Annotated Bibliography – Twitter, Social Networking, and Communities of Practice

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Introduction

Technologies emerge, evolve, and sometimes become obsolete very quickly. Occasionally, a simple technology designed for one purpose is adapted to meet an array of quite different purposes, some of which may be educational. In the case of Twitter, the needs and goals of users have transformed a simple status updating software into a versatile networking and learning tool used by an estimated three million people. I became one of these many users in 2008, after hearing about Twitter from a colleague at my university who raved about how it had become her primary resource for professional development.

My personal professional use of Twitter has indeed proven to be a useful source of learning and means of connecting to others in my dual fields of interest: educational technology and teaching English as a Second Language. Convinced that Twitter had potential as a tool for second language learning, I experimented with a class of ESL learners in my intensive English program in 2009. The purpose was to investigate whether use of Twitter could help establish a strong sense of classroom community. While the outcome of this experiment suggested that Twitter could positively impact community building, the “community” being formed was limited to members of the class.

Adopting a situated learning perspective, I have come to believe that the true power of Twitter and other social networking tools lies in their potential to extend learning beyond the boundaries of the classroom community. Based on the ideas of Lave (1991) and Wenger (1991, 1998), learning takes place as “newcomers” become more proficient practitioners of a discipline through participating in Communities of Practice. Learning is a social process facilitated by interaction with others who are mutually engaged in the socially and culturally defined practices of the community. Social networking technologies can allow second language learners to negotiate

meaning and shape their identity as English speakers as they connect with and participate in the real world communities that are important to their lives.

In reviewing the articles that have become this bibliography, I have been seeking the intersections between the affordances of Twitter and similar popular social networking technologies, situated learning theory in terms of Lave and Wenger's concepts of Legitimate Peripheral Participation and Communities of Practice, and technology assisted learning through engagement in online communities. The bibliography may have significance not only for second language teachers, but also for those interested in the educational value and potential use of social networking technologies for online learning, mobile learning, student recruitment, and engagement of students in learning.

Annotated Bibliography – Twitter, Social Networking and Communities of Practice

Antenos-Conforti, E. (2009). Microblogging on Twitter: Social networking in intermediate Italian classes. In L. Lomicka, & G. Lord (Eds.), *The next generation: Social networking and online collaboration in foreign language learning*, (pp. 59 ff.) CALICO – The Computer Assisted Language Instruction Consortium.

In July 2009, this was the only research based journal article identified in which the use of Twitter as a language learning tool was investigated. In this case, the students were studying Italian at a university in the U.S.A., and the use of Twitter was a required, graded component of their coursework. The author identified with interaction theories in second language acquisition and an information processing view, relating the reading of tweets to inputs which are “integrated into the learner’s linguistic system” (p. 76) and then output as posted or reply tweets. Consequently, the research is obviously not presented in terms of situated learning and language learner participation in a Community of Practice. However, the author does draw conclusions about how the use of Twitter led to the development of community among the students and the other participants involved in the study and how she believed that classroom dynamics were affected positively by Twitter use. The research questions were related to 1) students’ use of Twitter in terms of frequency of posts or tweets and the content of their tweets and 2) whether or not students considered Twitter to be a useful tool for learning Italian. The posting was relatively unstructured, but the teacher did provide some prompts and also responded to student tweets with corrective feedback. The majority of learners reported positive feelings about using Twitter; however, less than half of the 22 participants tweeted the minimum number of times required by the instructor (a total of three times per week) and most of the learners posted status tweets rather than replies to other participants. Participants were most positive about the affect of using Twitter on their confidence as language users and on the development of their writing skills, yet they did not feel that reading tweets helped their reading skills. There was no attempt to analyze language acquisition. The author claimed that there was evidence in many tweets that participants’ interest in Italian culture had increased as a result of using Twitter. The author also noted the

participants' unexpected adoption of Twitter as a community information bulletin board. Although a small number of native Italian speakers on Twitter were followed by the participants, they were selected by the instructor, and were all technology specialists. There were not many direct exchanges with the Italian speakers; however, 58% of the participants reported that they learned a lot about Italian culture from reading their tweets. There was a more authentic opportunity for interaction noted by the author as a "great learning opportunity" (p. 80) when an Italian native speaker sought the students advice on planning a trip to New York, near where their school was located. The author capitalized on this opportunity by including this person in the restricted community and asking students to reply to his posts. This last unplanned use of Twitter in fact created an ideal situation for the negotiation of meaning afforded by exolingual interaction and purposeful conversation based on solving a problem. Herein lies the true potential for Twitter as a language learning tool.

Barab, S. A., & Duffy, T. M. (2000). From practice fields to communities of practice. In D. H. Jonassen, S. M. Land, D. H. Jonassen & S. M. Land (Eds.), *Theoretical foundations of learning environments*, (pp. 25-55). Mahwah, NJ US: Lawrence Erlbaum Associates Publishers.

This article discusses what the authors considered to be an essential shift from learning designed for collaborative classroom practice, defined as practice fields, to learning designed to connect students with society through legitimate peripheral participation in Communities of Practice. The problem with practice fields according to the authors, is that they do not allow for negotiation of self as a member of the larger society. Rather, the learner may develop a sense of identity that is bound to the culture of the classroom or school and the motivations for learning are likewise, connected to an "exchange value" rather than to the goal of being a full practitioner of something (math, science, writing, etc.). The authors make three important distinctions between situated approaches to learning considered to be practice fields (including problem-based learning, cognitive apprenticeship, jigsaw learning) and community learning typical of Communities of Practice: 1) the sustainability and history of the learning community, 2) whether the learners and community are part of some larger community and 3) whether there is access to legitimate participation (p. 17). The authors provide examples of several best practice models of learning projects carried out in public secondary schools and in colleges. The question for the use of social networking tools becomes whether and how they connect learners with the society in a way that allows for the negotiation of identity through the process of legitimate peripheral participation.

Brown, J. S., & Duguid, P. (1993). Stolen knowledge. *Educational Technology*, 33(3), 10-15. Retrieved September 30, 2009 from <http://www2.parc.com/ops/members/brown/papers/stolenknow.html>

In this theoretical article, Brown and Duguid transform the question of how the ideas of situated learning can be implemented through educational technology to the

question of how education can better facilitate opportunities for legitimate peripheral participation (LPP). Several essential points about a situated view of learning are made that have particular relevance to the use of social networking technologies, since these are tools that by design, facilitate LPP. First, drawing on Lave's contention that learning should be considered from the perspective of the learner, the authors point out that educators need to accept that learning outcomes may be different from learning objectives created by a teacher or school, but they represent learning nonetheless. This is the idea expressed in the Cousin and Deepwell (2005) article that learning cannot be designed, but can only be designed for. Furthermore, the authors make it clear that both the implicit and explicit knowledge of a community are best learned in authentic social contexts. In a powerful endorsement of Lave and Wenger's theory, Brown and Duguid wrote: "It is a fundamental challenge for design-for both the school and the workplace to redesign the learning environment so that newcomers can legitimately and peripherally participate in authentic social practice in rich and productive ways to, in short, make it possible for learners to "steal" the knowledge they need"(p. 3). The authors recommend the creation of learning environments from the perspective of the learner – from the demand side rather than the supply side (p. 6). This means providing access to the CoP in as many authentic contexts as possible so that the learner may take advantage of what is available through LPP on an as needed, just in time way.

Comas-Quinn, A., Mardomingo, R., & Valentine, C. (2009). Mobile blogs in language learning: Making the most of informal and situated learning opportunities. *ReCALL*, 21(1), 96-112.

The authors are all with the Open University, the government chartered distance learning university in the UK; Comas-Quinn and Mardomingo are faculty members in the department of languages and Valentine is in the Center for New Media. They are interested in the use of mobile technologies, for example, cell phones, MP3 players, and digital cameras, by second language learners to capture, share and reflect on cultural experiences in the second language culture through a course group blog. Recent findings from mobile learning research mentioned suggest increased learner engagement and motivation combined with affordances for interactive, collaborative learning activities; however, recognition of these benefits requires a pedagogical shift from cognitivist to social constructivist and situated learning perspectives. The authors focus on the benefits of mobile technology use for capitalizing on informal "accidental" learning, and learning in and across contexts. Two of the more interesting findings of a pilot project in which Spanish language students used mobile devices to blog to peers *in situ* were first, learners' unexpected lack of familiarity with devices and blogs, and second, the need to prepare learners who are accustomed to traditional teacher-centered environments for a shift in the responsibility for goal-setting and learning to themselves. The authors consider this to be a need for teaching "new literacies". Not surprisingly, the authors point out the lack of a suitable means of assessing the learning outcomes of this type of activity. Relevance to the potential value of Twitter for language learning is found in the authors' aims for the pilot and

future projects; namely, encouraging students to be more aware (and perceptive) in the new culture, engaging students in dialogue in order to make sense (or meaning) out of the foreign culture, and providing a means to extend learning across timeframes to allow for reflection.

Costa, C., Beham, G., Reinhardt, W., & Sillaots, M. (2008). Microblogging in technology enhanced learning: A use-case inspection of PPE summer school 2008. Retrieved September 30, 2009 from <http://togather.eu/handle/123456789/365>

This article describes an impromptu study of Twitter use during a summer school program for PhD students in Macedonia. The students were taught by researchers involved with technology-enhanced learning and organizational learning in communities of practice. The goal was to encourage collaboration between the students who represented several different academic disciplines. Twitter was used as a backchannel; it was the major means of communicating program information, a means of providing feedback about presentations and classes, and a means of sharing reflection on learning. A Tweme (a Twitter meme represented by a # and a group name, for example #summerschool) was employed to aggregate all group tweets and other shared content in an online site. This is a useful technique for a class or group and also facilitates analysis of tweet content and participation. Another interesting technique employed Wordle, a word aggregator, to analyze tweets posted on different days with the purpose of determining whether discussions related directly to presentations, which they consistently did. Participants were surveyed about Twitter experiences. 83% of respondents reported reading Twitter messages and 70% of these said they were encouraged by Twitter to join in discussions on summer school topics. Although the study focus was not on the development of a community of practice, there were comments made by participants that indicated that they participated in using Twitter because they wanted to be included in the action. It is useful to note the participants negative comments about Twitter as well, namely, the constraint of the 140 character message length, technical problems with over capacity status, and distraction by the overload of information.

Cousin, G. & Deepwell, F. (2005). Designs for network learning: A communities of practice perspective. *Studies in Higher Education*, 30(1), 57-66.

The article is intended for designers or instructors of networked or online learning environments. Guiding ideas of Wenger's model of communities of practice concept for learning are explored and explained in relation to aspects of network learning. The authors conclude with a concise bulleted list of implications for design and instruction if development of a community of practice is to be facilitated by the online learning environment. They include: the need to allow for sufficient time for development of a shared repertoire among learners, the value of participants with different levels of expertise and of peripheral participants in bringing in new ideas, the need for a balance between participation in conversation and the creation (reification) of artifacts, the need to allow for learner autonomy in developing practices, the need to allow for

social interaction and practices (which are connected to learning practices), the need to approach design as designing for learning (since designing learning is impossible), the need to facilitate opportunities for imagination through explorations beyond the boundaries of the community of the course as well as mechanisms that capture these experiences.

Dennen, V. P. (2008). Pedagogical lurking: Student engagement in non-posting discussion behavior. *Computers in Human Behavior*, 24(4), 1624-1633.

This article reports the findings from two studies of college students' participation in two blended online courses. The research questions asked why learners engage in lurking behavior (observing, reading, but not posting to a discussion), whether learners consider their lurking to be a part of their learning process, and whether lurking behavior is related to better performance in a course. The affordance of lurking in an online course was found to allow learners to obtain a model of a post and later, to reflect on what they or others had written and/or check for responses. The author relates the observing and vicarious learning of lurking behavior to Lave and Wenger's (1998) Legitimate Peripheral Participation and the reflective behaviors to cognitive apprenticeship (p. 1625). A statistic quoted from another study of lurking in an online forum found that 92% of members are lurkers at any point in time. Of the 32 participants in the studies discussed in this article, half of all learners reported that both reading posts and writing posts contributed to their learning. The findings associated with the intentionality of learners are also worth mentioning. Students who reported posting because it was required for the course and who did not spend time reading others' posts did not tend to find learning value in the discussions, whereas the lurkers, those who both read and returned to reflect on posts frequently, tended to consider the activity as valuable to their learning.

Dunlap, J., & Lowenthal, P. (2009). Tweeting the night away: Using Twitter to enhance social presence. *Journal of Information Systems Education*, 20(2)

The authors adopted Twitter as a tool to facilitate informal communication between students and faculty in the online college-level Instructional design course they taught. The purpose was to enhance social presence of class members and faculty and thereby foster the development of community, learner engagement, and satisfaction with the course. Social presence was defined in terms of Garrison, Anderson, & Archer's Community of Inquiry framework (2000) as "the ability of participants in a Community of Inquiry to project their personal characteristics in the community, thereby presenting themselves to other participants as "real people" (Garrison, Anderson & Archer, 2000, as cited by Dunlap & Lowenthal, p. 2). Twitter's value was seen primarily in its affordance for immediate connectivity and just-in-time learning, a capacity that is not matched in LMS systems that require log-in. Research findings on the effects of social presence on learning are briefly discussed. The authors reference other examples of academic uses of Twitter and provide several sample student tweets to illustrate the types of communication that occurred in their course. Instructional

benefits beyond the enhancement of social presence are summarized and include handling student problems quickly and efficiently, teaching students to write concisely and for an audience, connecting with an online professional community of practice in the subject area, supporting independent learning, and extending relationships beyond the timeframe of the course. The article concludes with several guidelines for teachers who may decide to adopt Twitter.

Gannon-Leary, P. & Fontainha, E. (2007). Communities of practice and virtual learning communities: Benefits, barriers and success factors. *ELearning Papers*, (5) Retrieved September 30, 2009 from www.elearningeuropa.info/files/media/media13563.pdf

The authors are European academics who have examined virtual online communities in Europe to gain a better understanding of why they are not reaching full potential. Through interviews with academic colleagues involved in virtual communities of practice (CoPs), the authors identify benefits, barriers and critical success factors (CSFs). These are summarized in a chart on pages 6 and 7. In their concluding comments, the authors raise the question of whether characteristics of European culture and diverse languages in the EU have mitigated the formation and persistence of online CoPs in comparison to North America and Australia where virtual CoPs among academics are more widespread. This article may provide useful insight into academic online CoPs.

Godwin-Jones, R. (2008). Emerging technologies mobile computing trends: Lighter, faster, smarter. *Language Learning & Technology*, 12(3), 3. Retrieved September 30, 2009 from <http://llt.msu.edu/vol12num3/emerging.pdf>

The intended audience for this article is language educators. The author describes developments in mobile technologies (mobile phones, laptops and other devices, wireless connectivity and networks) in terms of their potential impact on language learning. An entire section of the article is devoted to Android, a mobile phone/computing device being developed by Google that will have more computing capabilities than the current Apple iPhone. Some examples of mobile phone adoption for language teaching and learning in India and Europe are detailed. The author also described some of the language applications developed for iPhone. He referred to the benefit of these devices for language learning mainly in terms of their ability to provide greater “language input”; however, in his concluding comments, he does acknowledge more social uses of mobile technologies among language learners, for example to communicate through text chat or to connect class members through Facebook.

Grosseck, G. & Holotescu, C. (2009). Using microblogging in education: Case study cirip.ro. Paper presented at the *6th Conference on e-Learning Applications*, 6th Conference on e-Learning Applications, January 10-12, 2009, Cairo. Retrieved

September 30, 2009 from <http://www.scribd.com/doc/8551345/Using-microblogging-in-education-Case-Study-Ciripro>

Author Grosseck is a professor of sociology in Romania and author Holotescu is a PhD candidate (at the time the article was written) in Computer Science and the owner of Timsoft, the software company which developed Cirip.ro, the microblogging tool described in this case study. Cirip.ro, unlike Twitter and other popular microblogs, was designed specifically for education with the functionalities to create private groups, to embed files and images, to send audio and video messages, and the ability to subscribe to feeds. The authors also mention that there are certain statistics and visuals that can serve to provide qualitative and quantitative performance measures of users. The authors successfully used the platform as an LMS for a two-week course with 42 participants.

The “General Remarks” section is interesting in the characterization of participants’ learning in terms of values and attitudes including things like responsiveness to others’ emotions, respect and confidence, and interpersonal relations. To the authors, these outcomes were atypical of online learning situations and attributable to “an ambient awareness for communication, connections and immediacy” (p. 3).

Gunawardena, C. N., Hermans, M. B., Sanchez, D., Richmond, C., Bohley, M., & Tuttle, R. (2009). A theoretical framework for building online communities of practice with social networking tools. *Educational Media International*, 46(1), 3-16.

This article was written by a group of doctoral students in an advanced Educational Technology course. The group carried out action research in order to develop a theoretical framework that could be applied to understanding the process of learning in social networking environments from a Communities of Practice (CoP) perspective. The framework is based on a six-stage spiral extending from the context of the online community (in this case centering on a wiki), to discourse, action, reflection, reorganization and finally to socially mediated metacognition. Each phase is described in terms of the authors’ experiences as they became a CoP in the process of writing this paper. Although microblogging was curiously not mentioned as one of the Web 2.0 tools that was used by the authors, the framework could be employed or tested to determine the degree to which microblogging as either a central context or as part of some other mashup configuration could similarly facilitate the development of a CoP. In terms of language learning, the section on discourse is interesting. Gee’s (1996) definition of discourse and ideas about primary and secondary discourses are considered in terms of learners within social networking environments that are also CoPs. In essence, there are many layers of discourse and language use at play within a social network. Learners bring their entire language history, including socialized language practices. The CoP creates a discourse of its own as meaning is negotiated and power and identity play out in language interactions. This underlies the idea of emergent identities of second language learners in the Hanh and Kellog article.

Hanh, T. N. & Kellogg, G. (2005). Emergent identities in on-line discussions for second language learning. *Canadian Modern Language Review*, 62(1), 111-136.

The authors, professors of TESOL and linguistics, present findings from a study of the online discussions of adult ESL students in a content-based course. The students discussed and gave opinions on the value-laden topic of homosexuality. The methodology combined ethnography and discourse analysis (using Goffman's participation framework). The theoretical perspective is of language learning as a process in which the negotiation of identity plays a key role. Lave and Wenger's community of practice view is foundational to the authors' beliefs about language learning. Membership in the community of practice of the second language comes about as the learner negotiates identity through participation in the community and thereby acquires sociolinguistic competence. The research findings noted on the affordances of online discussion for language learning were numerous: lack of turn-taking constraints that exist in face-to-face interaction, lack of need for relevancy of turn to immediately preceding turn, a balanced opportunity to have the "floor, and a visual record of language interaction that facilitates the negotiation of meaning. The authors' analysis also reveals that learners take on roles that they may be less likely to take on in other kinds of interactions. This is extended to the idea that not just learner traits (tendency to be shy, for example) may determine participation, but choices made in interactions may change the potential for future participation. In a dynamic interplay, participation shapes identity and identity affects participation. According to the Goffman framework, discourse analysis is in terms of the alignment of an utterance in terms of the position of the speaker vs. the position of those spoken to regarding the given topic. What is relevant to the question of the educational value of social networking here is the idea that through the process of participation, a person is negotiating an identity within the community, whether it is Twitter, Facebook, or something else. Further, although the authors do not discuss legitimate peripheral participation (LPP), it seems that within the framework of alignment, LPP could also be an interactional choice with consequences for future potential participation. It could allow the agent to privately determine whether the community's values, beliefs, practice, etc. are aligned with his or her own before she adopts the intention to become a more active participant. In terms of second language, it seems that opportunities for learning would expand exponentially with active posting if others respond.

Hodgkinson-Williams, C., Slay, H., & Siebörger, I. (2008). Developing communities of practice within and outside higher education institutions. *British Journal of Educational Technology*, 39(3), 433-442.

The authors are researchers in computer science and higher education development. The purpose of the article is to provide a model for higher education institutions (HEIs) of how information and communication technologies (ICTs) could be used to develop collaborative learning environments within and extending beyond the boundaries of the HEI to the local community. Hoadley and Kilner's (2005) C4P Framework for Communities of Practice is applied to an analysis of the author's e-

Yethu project in South Africa. The project utilized a wiki to connect IT graduate students with administrators and teachers in schools in an economically poor area of Capetown, with the goal of helping schools acquire and learn to use and integrate technology. The C4P Framework, developed to describe learning in knowledge-building communities, centers on the idea that knowledge generation requires “purposeful conversation around content in context” (p. 436); with the four Cs representing content, conversation, connections and context (information). The C4P Framework could be useful in analyzing and understanding the learning taking place in social networking activities (Facebook, Twitter, blogs, etc.) as well as in more formal online learning environments (courses, wikis, etc.).

Honeycutt, C. & Herring, S. (2009). Beyond microblogging: Conversation and collaboration via Twitter.

This paper, focusing on a study of conversational interactions in Twitter, was presented to attendees of a conference on System Sciences. The authors were interested in how Twitter was being used, how well it facilitated conversational exchange, and what changes could make it a more useful tool for collaboration. Referencing the Java et al. paper on Twitter user intentions also included in this bibliography, the authors question whether conversation use is defined by use of the @ sign in messages, which can be used to direct a tweet or message to a specific user when the @ is followed by the user’s name. Using measures of addressivity and coherence, the authors created questions to explore the extent to which use of the @ sign is conversational. A tool called Twitter Scraper was developed for the study, which captured public tweets in regular intervals and saved them to a database. Tweets were coded using a grounded theory approach and classified according to theme of language content. Interaction analysis was used to measure response rate and extended exchanges. Dynamic Topic Analysis (DTA) was used to analyze coherence in extended exchanges and VisualDTA was used to show how conversational patterns evolve over time. The overall rate of use of the @ type tweet was twice as high as reported in the Java et al. (2007) article, a fact the authors attribute to increasing use of Twitter for interaction. @ tweets were determined to be more interactive, with 31% receiving some response. Two person exchanges of 3-5 messages sent within a timeframe of 15 to 30 minutes were the most common type of conversation from the random sample of 200 tweets. @ tweets were found to have a wider variety of content compared to non-@ tweets which were mostly responses to the Twitter prompt of “What are you doing”? The authors concluded that Twitter is increasingly employed for collaborative communication and predicted greater adoption of microblogging using mobile devices by distributed work teams. Some of the design modifications suggested, the ability to search Twitter messages, customizable individual and group spaces, have become possible through related applications. The analysis methods could conceivably be employed in studies of second language learner uses of Twitter or other computer mediated communication, for example, to consider strategic competence in participating in extended conversational exchanges.

Hung, D. (2002). Forging links between ‘communities of practice’ and schools through online learning communities: Implications for appropriating and negotiating knowledge. *International Journal on E-Learning*, 1(2), 23-33.

Hung first traces the theoretical development of the learning communities created in schools to Vygotskian social constructivism and activity theory. Scardamalia and Bereiter’s Knowledge building Classrooms (CSILE) and Brown and Campione’s Fostering a Community of Learners (FCL) are presented and discussed as two successful models for constructing learning communities. However, moving on to Lave and Wenger’s situated learning view, the author points to differences between a school learning community and a “real” community of practice in which practitioners learning is based on the need to solve real problems and facilitated by access to more expert others. Hung calls for schools to develop curricula and structures that allow students to interact and participate with real communities of practice. He suggests that online technologies can facilitate and mediate the interactions between students and experts in real-world communities in ways that will allow for both the negotiation of meaning and the appropriation of knowledge through “modeling-mirroring” processes. A distinguishing feature of this article is the contrast and discussion of collaborative learning vs. apprenticeship learning.

Hung, D. W. L., & Der-Thanq, C. (2001). Situated cognition, vygotskian thought and learning from the communities of practice perspective: Implications for the design of web-based E-learning. *Educational Media International*, 38(1), 3-12.

Authors Hung and Chen are interested in connecting the key principles of situated cognition, post-Vygotskian concepts of development, and Communities of Practice to guidelines for design of e-learning communities that truly function as Communities of Practice. This is in light of their belief that most online communities do not ever reach this level, in part due to their lack of what they call “infrastructure”. Infrastructure provides learners in an online community with rules for participation, an accountability mechanism (how learners evaluate each other’s contributions), and facilitating structures that provide a space for the practices of the community (websites, wikis, blogs). The other three features of their four-dimensional design of a “vibrant” e-learning community are: situatedness (through contextualized, embedded activities) commonality (through shared goals and interests) and interdependency (created by different levels of expertise among learners who may mutually benefit from cooperation and collaboration). The table translating the situated and constructivist theoretical principals into design considerations for e-learning is also useful as a means of evaluating online learning environments when facilitation of a Community of Practice is a goal.

Hung, D., & Nichani, M. (2002). Differentiating between communities of practice (CoPs) and quasi-communities: Can CoPs exist online? *International Journal on E-Learning*, 1(3), 23-29.

Hung and Nichani, both experts in E-Learning, made the case that many online communities are not actually Communities of Practice because 1) they do not provide participants with opportunities or tools to practice or to become a practitioner of something (to negotiate identity) and 2) because the intention of most participants in informal online communities is to acquire information or get help and not necessarily to reciprocate. The authors focused on examples of professional and organizational Communities of Practice in which connections between members are very close and there has been time for members to develop trust as well as share implicit knowledge of the social practices of the community. According to the authors, this “social capital” is lacking in many online communities where members are only loosely affiliated and communication is intermittent. Cooperation between participants is therefore not enabled. Other arguments were that online communities may not provide opportunities for nuanced learning from physical interactions or may not provide opportunities for accidental learning from impromptu conversation. The authors’ conclusion was that online communities can extend existing CoPs, but creating true online CoPs was still (in 2002) in the experimental stage. Whether one agrees or disagrees with the conclusions reached, there is food for thought here, especially in considering whether social networking tools and sites are true Communities of Practice or something else, and if they are something else, whether they still have some educational value and why.

Java, A., Song, X., Finn, T., & Tseng, B. (2009). Why we Twitter: Understanding microblogging usage and communities. Paper presented at the Proceedings of the Joint 9th WEBKDD and 1st SNA-KDD Workshop 2007. Retrieved September 30, 2009, from <http://ebiquity.umbc.edu/paper/html/id/367/Why-We-Twitter-Understanding-Microblogging-Usage-and-Communities>

This paper, presented at a 2007 WEBKDD Workshop, is directed toward computer software designers and programmers who seek to build on the success of microblogging clients like Twitter by gaining insights into how and why people use these tools. The authors focused on analysis of user intentions with Twitter at the level of the community. They used mathematical algorithms to determine hubs of activity and community nodes. The Clique Percolation Method (CPM) was applied to find overlapping communities and then content themes within communities were determined by analysis of the frequency of specific terms. Twitter posts were manually coded for intention resulting in identification of four main user intentions: talk about daily routines, conversation, sharing information (URLs), and reporting news. Three main types of users were identified: information providers, information seekers and friends. The methods of analysis used for discovering communities of users and their interests may be of use to researchers interested in the formation of and relations within and between online social networks.

Johnson, C. M. (2001). A survey of current research on online communities of practice. *Internet and Higher Education*, 4, 45 – 60.

This survey completed in 2001, reviewed the literature related to communities of practice. The author considered 15 research studies conducted between 1998 and 2001, 8 of which involved online communities. All of these were case studies, and he noted that none were conducted with the purpose of investigating how virtual communities could be designed to facilitate the creation of a community of practice, since the latter type of online community is emergent from the former. The author raised several key questions for future research with this purpose. His specific concerns included the relative importance of face-to-face contact, the need and type of scaffolding, the role of the facilitator in mediating communication problems, the amount of time required for a CoP to emerge, and how affordances for authentic practice can be built in to the design of the virtual learning environment. He also provided a guiding framework for development of a case study from which insights into improved design of virtual communities could be gleaned. This would entail comparison of the designed for versus emergent uses of the virtual learning space.

Johnson, L., Levine, A., Smith, R., & Smythe, T. (2009). Horizon report: 2009 K-12 edition.

This is the annual forecast for technology adoption in K-12 classrooms in the U.S. Twitter and other online communication tools are among the technologies in the “one year or less to adoption” category. Edmodo, the microblogging platform designed for education is mentioned as providing a safe means of facilitating teacher/student communication. Online communication tools are valuable for facilitating just-in-time teaching, for allowing students to develop a public voice, for connecting students with others in the world, and for facilitating the sharing and exchange of ideas with peers. The report quotes a Pew Internet survey which forecasts that mobile devices will become the primary means by which people with access the Internet by the year 2020 (p. 16).

Johnson, S. (2009, June 5, 2009). How Twitter will change the way we live. *Time*, Retrieved September 30, 2009, from <http://www.time.com/time/business/article/0,8599,1902604,00.html>

This *Time* cover story appeared at the height of the Twittermania craze created by the U.S. media. The author describes the evolution of his own feelings about Twitter from initial skepticism to rapid appreciation and eventual fascination. The fascination is not with the simple Twitter software, but with the innovative ways in which it has been adapted and so widely adopted. This innovation is pointed to as evidence that the U.S.A. is still a leader in terms of influencing global lifestyles. For the past 20 years, this has been perpetuated by the development of consumer and online technologies. The author provides a big picture view of the social impact of Twitter and makes some convincing predictions about future implications. For one, applications like Twitter will eventually lead to individualized information access as personal virtual extended networks are harnessed. The author might have coined the term “The Super-Fresh Web” in describing how applications like Twitter can provide the most up-to-the-

minute contact with the topics of interest in the online community. He also notes the power of Twitter and associated applications to extend participation beyond physical boundaries (of private meetings, conferences, etc.) to allow participation by a wider audience and what's more, to create a record of conversation. In this sense, Twitter allows for peripheral participation, both in real time and asynchronously.

Joly, K. (2009). Should you Twitter? *University Business*, 12(1), 39-40.

This article is directed toward university administrators rather than faculty. The question is how universities are using Twitter for business and marketing purposes. There are a few interesting statistics that demonstrate Twitter's adoption for a variety of university business practices. The author's own online survey of higher ed web and communications professionals showed that 19% of 540 preferred Twitter as their source of online professional development. 33% of 148 institutions participating in another survey reported using Twitter either to connect with students or alumni for marketing or communications purposes. On the other hand, college age students are not a major part of the Twitter user demographic according to the survey results of a university admissions coordinator mentioned in the article. His survey of incoming freshmen in the summer of 2008 found that only 31 of 340 had heard of Twitter and only two were users.

Kroski, E. (2008). Twitter tools & mashups. *School Library Journal*, 54(7), 34-34.

This is fairly comprehensive list of Twitter application links. Some may be useful for educational uses of Twitter.

Lave, J., & Wenger, E. C. (1991). *Situated learning: Legitimate peripheral participation*. New York, NY: Cambridge University Press.

This is the seminal work by Jean Lave and Etienne Wenger that laid the theoretical foundation for a transformation in the way many people have begun to think about learning. Situated learning, in contrast to an information processing view, is a context-based theory of learning centering on the emergence of learning, meaning and understanding through the dynamics of social interaction. Legitimate Peripheral Participation describes social practices whereby a newcomer has access to membership in a community through participation, which initially may be at the periphery of the community, but which can increase to eventually reach full participation. A Community of Practice exists when members share goals and interests and engage in a repertoire of shared practices, reflecting shared values and beliefs through a common discourse.

Lipka, S. (2009). Colleges using technology to recruit students try to hang on to the conversation. *The Chronicle of Higher Education, Today's News* Retrieved September 30, 2009, from <http://chronicle.com/article/Admissions-Offices-Struggle/47230/>

This article provides two interesting statistics about the attempt of colleges to use online social networks for recruitment purposes. First, from the UMASS Center for Marketing Research in 2009--61% of admissions offices were using social networking sites and 41% blogs. This represented an approximate 30% increase from 2007. On the other hand, the College Board and the Art & Science Group, a consulting firm, found from surveying students that only 24% reported becoming more interested in a particular college from looking at their social networking site. The article mentions some of the experimentation and investment colleges are making in social media. It will be interesting to see whether a community of practice perspective is eventually taken where perhaps prospective students would be able to engage (or even participate peripherally) with college students and faculty based on mutual interests.

Mansfield, H. (2009). 10 Twitter tips for higher education. *University Business*, 12(5), 27-28.

The author is a communications specialist who created and manages a higher education portal to Twitter. Her tips for Twitter use in this article are directed toward institutions using the tool for marketing and public relations purposes. Her advice may be useful to others who seek to employ social networking tools for the purpose of communicating with college age students. She highly recommends that schools attempt to create online community through creating conversations rather than employing marketing techniques they would typically use on websites. She suggests that Twitter is a better tool for recruiting older or non-traditional students because of the small percentage of users who are 17 or younger. She suggests following all followers in order to promote conversation. Other less obvious advice includes providing content that is of some value to the intended audience and that will be more likely to be “retweeted” and will thereby draw more attention and following to the school. On the other hand, a maximum of six tweets per day is strongly recommended based on the authors’ polls of Twitter users. The higher education portal is at: www.twitter.com/higheredu

McLeay, J. (2009) *The open classroom blog, 10/22/08 entry: Twitter as a community of practice for educators: Microblogging explored.* Retrieved September 30, 2009, from <http://theopenclassroom.blogspot.com/2008/10/part-2-twitter-as-community-of-practice.html>

This is a blog entry written by a secondary school English teacher who is an experienced and regular user of Twitter (she follows 300+ other educators). She used Twitter and Plurk to survey educators about the effect of their use of the microblogs. A selection of responses are provided and present an impressive array of outcomes including, to mention just a few, professional development, developing a more global vision, having backchannel support at a conference, and learning how to use tech tools. The entry is also useful in terms of relating specific elements of Wenger’s CoP (e.g., shared repertoire, affordances for mutual engagement, brokering) to a real-life example, in this case, educators using Twitter. The author makes an interesting

comment about how Twitter facilitates “just in time teaching” through both its mobile use and its real-time capability. The references cited include of course Lave and Wenger’s books, but also many of the most recent papers relevant to Communities of Practice for educators.

Moore, B. (2008). Using technology to promote communities of practice (CoP) in social work education. *Social Work Education*, 27(6), 592-600.

The author is an assistant professor and department head of Sociology at Texas A&M University. The article makes a case for the adoption of Internet technologies (though no specific technologies are prescribed) to build online learning communities based on a Communities of Practice framework in support of the goals of social work education. There is first a thorough explanation of Wenger’s (1998) model, including the five stages of development of the CoP. The author draws on Hung and Nichani (2002) and Hung and Chen (2001) for guidance on developing an online community that reflects the goals of learning to be a social worker rather than learning about social work. Issues of identity formation, authenticity of context, situativity, and opportunities to apply rather than retain learning are discussed in terms of the process of legitimate peripheral participation. Opportunities for collaborative reflection with peers and the linking of social work researchers with practitioners are also seen as beneficial and possible within a CoP framework. This article provides a useful example of how learning outcomes are re-conceptualized in terms of participation in social practices. The CoP framework is again found to provide an ideal framework for design of online learning environments that support the process of learning by becoming. Social networking tools can be part of an online environment that is designed to maximize opportunities for connection between newcomers, experts, and others in a community of practice.

Newgarden, K. (2009). Twitter. Available: <http://www.tesl-ej.org/wordpress/past-issues/volume13/ej50/twitter/>

In this issue of TESL-EJ, I review the potential academic uses of Twitter. I look particularly at the conjunction of Twitter with other applications, such as Tweme and Twibe, and how they can be used to further English usages for NNSs.

Parry, D. (2008). *AcademHack* blog entry: *Twitter for academia*. Retrieved September 30, 2009, from <http://academhack.outsidethetext.com/home/2008/twitter-for-academia/>

Dave Parry is a professor of Communications who was one of the first to write about the potential of Twitter for use in higher education. While using Twitter with students in his course, he noticed the positive effect it seemed to have on the sense of community and classroom dynamics. He wrote about this as well as several other potential uses of Twitter in academia. His blog entry on Twitter is widely quoted in the literature.

Pempek, T. A., Yermolayeva, Y. A., & Calvert, S. L. (2009). College students' social networking experiences on facebook. *Journal of Applied Developmental Psychology*, 30(3), 227-238.

This NSF supported research was carried out by psychology faculty at Georgetown University. The objectives were to investigate how and why college students use Facebook. The researchers associated different behaviors while using Facebook with the developmental stages of identity occurring throughout adolescence. There are several findings relevant to exploring the potential educational value of Facebook. First, the use of Facebook is primarily social. Few of the 92 students in the study reported using Facebook to discuss a course or to participate in a group. In fact, the more "passive" behaviors of observing others or lurking were found to be far more frequent than posting and interacting. The authors suggest in their concluding comments however, that Facebook does have potential for academic use and describe how professors and alumni could participate and mentor students in online websites designed to allow students to post content related to academic interests. This is considered in developmental terms, as helping students develop their intellectual capacities rather than as the potential for creation of a Community of Practice in which the students would be learning to be participants in a particular academic field or discipline. For second language learners at the college level, there is also potential value. Nearly universal use of Facebook by college age students in the U.S.A. (the study mentions 90% usage based on other unnamed research) implies that this is a cultural norm and familiar social practice for this population. ESL students planning to enter a university in the U.S.A., would therefore be wise to join online networks like Facebook in order to interact/participate in this community.

PEW Internet project data memo re: Twitter and status updating. (2009). Retrieved September 30, 2009, from <http://www.pewinternet.org/Reports/2009/Twitter-and-status-updating.aspx>

This study was conducted at the same time as the Social Networking Study, apparently with the same participants. 11% of those surveyed reported using Twitter. Statistics provided include age of users, income level, use of other social media in addition to Twitter, and city versus suburban or rural location of users. Technology preferences are also covered, including preference for wireless connection, handheld devices, and cell phones. Overall Twitter users tend to be young, 39% are between 18 and 34, and tend to prefer the use of mobile technologies. Mobile technologies are used for news gathering,

PEW internet project data memo: Adults and social network websites. (2009). Retrieved September 30, 2009 from <http://www.pewinternet.org/Reports/2009/Adults-and-Social-Network-Websites.aspx>

This study was conducted by phone between November and December of 2008. 2,253 people were surveyed, 1,650 of whom were Internet users. Statistics on use of social

networking sites provide a profile of users by age, race, gender, and socioeconomic status. Use of different types of networking sites are examined. Other variables include concern for privacy, professional versus person use, number of online profiles maintained and habits associated with viewing online profiles. Overall, the use of social networking sites by adults had increased to a level in 2008 (35%) by more than four times what it was in 2005 (8%).

Pfeifle, M. (2009). A Nobel Prize for Twitter? *The Christian Science Monitor/csmonitor.Com*, Retrieved September 30, 2009 from <http://www.csmonitor.com/2009/0706/p09s02-coop.html>

This article appeared in early July 2009 just after Twitter was widely employed by Iranian activists to spread the news and images of their political oppression to the world. While the government was able to remove media access to the political unrest, civilians' access to cell phones afforded the use of Twitter for broadcast via the Internet to a wide international audience. In fact, the article mentions that an incredible 221,000 tweets per hour were sent from Iran during the heat of the protests. The author suggests that Twitter provided a tool of empowerment for people seeking political change, freedom and democracy, and is therefore worthy of the Nobel Peace Prize and extols the unique affordances of Twitter that allowed for its use as a "soft weapon of democracy"; namely, access to the audience of all users, not only those who have been given "friend" status as with other social networking tools, the ability to congregate tweets for particular interest groups through use of the # sign and the ability to use Twitter from cell phones.

Ritchie, M. (2009). Chirping about Twitter. *Times Educational Supplement*, (4836), 18-21.

This article appeared in the UK Times Educational Supplement, a weekly newspaper for K-12 educators. The author interviewed several teachers about their use of Twitter. There is more of an emphasis on safety for this population, as evident in the types of activities described, nevertheless the overall tone of the article is favorable. The author mentions, for example, how Digizen, an online educator resource for social networking, suggests that children need online literacies, including the ability to create online presentations and to be able to represent themselves online. Twitter is said to provide students in a language class with the feeling of being connected to the world beyond the classroom. Several Twitter applications that allow for the formation of closed groups (Edmodo, Yammer, ShoutEm) are mentioned as being favored by secondary teachers. The article also discusses how Twitter is used extensively by educators for professional development. A short list of pros and cons of using Twitter at the conclusion of the article is not particularly impressive, with the exception of the claim by neuroscientist Susan Greenfield—she says that social networking may result in an inability to empathize with others (p. 3).

Stevens, V. (2009). Trial by Twitter: The rise and slide of the year's most viral microblogging platform. *TESL-EJ*, 12.1(1) Retrieved September 30, 2009 from <http://tesl-ej.org/ej45/int.html>

Vance Stevens, editor of "On the Internet" for *TESL-EJ*, is a lecturer in computing and ESL/EFL based at the Petroleum Institute in Abu Dhabi. He is a leader in Computer Assisted Language Learning (CALL) and founder of the Webheads, an online CoP for language teachers. His article provides an in-depth description of Twitter and details his personal and habitual use of Twitter for professional development. He also provides an extensive list of links to Twitter resources, applications and mash-ups and some links to educator blogs and wikis on Twitter's potential for educational use. Ironically, Twitter's overload issues at the time the article was written (June 2008) led Stevens to conclude that it might not be long before people would find a new, more reliable microblogging tool. Almost exactly a year later, Twitter appeared on the cover of *Time* magazine with the dramatic headline: "How Twitter Will Change the Way We Live?". This article provides a good foundation from which to consider the specific language learning affordances of microblogging from the perspective of situated learning and legitimate peripheral participation.

Thompson, C. (2007, June 26). Clive Thompson on how Twitter creates a social sixth sense. *Wired*, 15.07, Retrieved September 30, 2009 from http://www.wired.com/techbiz/media/magazine/15-07/st_thompson/

In this social commentary piece, Thompson spoke to those who were skeptical of Twitter. He claimed that it could only be understood and appreciated through person adoption and use as a means of staying in touch with friends and others in a personal network. He talked about how following others on Twitter created for him an ambient awareness or a "sixth sense" that was reassuring and helpful in enabling him to feel connected to people he did not see on a daily basis.

Tynan, D. (2008). Eight ways Twitter will change your life. *PC World*, 26(11), 20-22.

What people do with Twitter has evolved considerably from the simple posting of an answer to "What are you doing?". The eight life-changing uses for Twitter include:

- 1) Get up to the minute weather (and natural disaster) reports
- 2) Looking for a job by tweeting
- 3) Using Twitter to search a term (instead of using Google)
- 4) Congregating a group quickly at a designated location (with Meetup.com)
- 5) Viewing streamed live Tweets as part of news broadcasts
- 6) Contacting a company CEO with a complaint or comment
- 7) Getting travel advisories by following the the State Department
- 8) Getting breaking news

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. New York, NY: Cambridge University Press.

First published in 1998, this is the book in which Wenger, who considers himself a “social learning theorist”, lays out his theory of social learning in terms of learning within Communities of Practice (CoP). The book is based on a longitudinal case study of insurance claims processors. Wenger’s definition of the community of practice is based on three key characteristics: a shared domain interest, a community defined by the sharing of knowledge around and interest in a particular domain, and a shared repertoire of practices developed through the sustained interaction and engagement of community members. The CoP framework implies that learning, meaning and identity are intertwined and interdependent.

Young, J. R. (2008). Forget E-mail: New messaging service has students and professors atwitter. *Chronicle of Higher Education*, 54(25), A15-A15.

This article reports anecdotally on the adoption of Twitter for a variety of academic purposes. David Parry’s story is an example that in fact is mentioned widely in Twitter in academia pieces. Parry, a professor at the University of Texas, blogged in 2007 on his initial experiment with Twitter use with students in his Computer Mediated Communication course. He felt strongly that Twitter communication had dramatically (and positively) changed the relationships and dynamics in his class in terms of building classroom community. A professor at Central Connecticut State University employed Twitter to post Tweets reflecting on classes he had just finished and discovered that students responses did not always confirm his own ideas about how things had gone. Use by an instructional designer who was otherwise isolated on her campus to communicate with colleagues across institutions was another type of story mentioned. The author also mentions Blackboard’s plans to add a Twitter-like feature to its course management system.

About the Author

Kristi Newgarden is an ESL teacher and director of the University of Connecticut American English Language Institute (UCAELI). She is currently a doctoral student in Educational Technology at the same university. Her interests are in computer assisted language learning and language learning in virtual worlds. She is interested in understanding how technologies can facilitate second language learner participation in communities of practice. Her professional information can be found at: <http://web.me.com/knewgarden/KNewgarden/Welcome.html> and she can be followed on Twitter at: kuri888.

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