# Classroom to Workplace: Communication Tools and Technology

## Dr. Chynette Nealy

[*] Department of General Business, Marketing & Supply Chain Management, University of Houston Downtown

*Abstract-* This article discusses how collaborations between business faculty and industry representatives focusing on redesigning business communication content and assignments offer fresh approaches to using communication tools and technologies. The objective of this pilot study was to identify where gaps exist in the expected technology skills of business majors as identified by industry representatives. The results offer insight into stakeholders' perceptions and pedagogical applications.

*Index Terms*- business communication, business faculty and industry collaboration, pedagogy, workplace technology

## I. INTRODUCTION

Emerging communication tools and technologies provide opportunities for developing course content that equips business majors with industry expected skills. The Association to Advance Collegiate Schools of Business (AACSB International), an accreditation organization for business programs recommends that business programs use effective pedagogies inclusive of active learning and *technology* [1]. A major challenge to this recommendation is how to best incorporate emerging educational technology such as a Learning Management System (LMS), into course content and activities. LMS is commonly defined as a software that allows the management and delivery of learning content and resources. Some examples include Blackboard, Moodle, Canvas [2], [3].

A noticeable theme in related literature about the mentioned challenge above suggests there is limited consensus about LMSs among decision-makers at higher education institutions and learning technology companies. There are various issues such as current and future types of LMSs, features, functions and users' satisfaction [4], [2], [5], [3], [6], [7]. One key issue stems from the notion some LMSs have limited functions which might not support a variety of pedagogical approaches used within higher education institutions [8], [9], [5],[3].

To illustrate the issue, in this case business majors might not be able to experience a reality-based common industry practice of communicating with people around the world. Although business majors will likely experience culturally diverse academic settings, an opportunity to collaborate via communication technologies with a global industry team should develop intercultural communication practices [10], [11]. Industry depends on technology companies to facilitate a variety of global connections via communication technologies designed to access internal and external links such as: web conferences, emails, social networking and videoconferences in order to manage daily operational processes. Most LMSs' have portal based systems with internal features which do not include options for external and/or global collaborations [4], [5], [3], [12].

Accordingly, literature and accreditation recommendations that focus on bridging the **gaps** between **theory** and **practice** suggest disconnects between how business programs prepare students and what industry expects [13],[14],[1],[15],[16],[17],[18],[19],[20],[21],[22], [23]. For example, the US Chamber of Commerce Foundation has highlighted the need for partnerships between employers and academic institutions, pointing to findings that suggest "While 96 percent of chief academic officers at higher-education institutions say they're effectively preparing students for work, only 11 percent of business leaders strongly agree, the polling company Gallup found. Thereby, concluding the education system is "failing to keep pace with the changing needs of the economy [24]."

In sum, employers posit that higher education is failing in its role to adequately develop needed skills in students. They point to a need for professors to influence students by promoting the skills businesses are seeking in future employees, e. g. communication, technical, collaboration, ethics and social responsibility, etc., and to help students achieve these skills through course activities [25], [26], [27], [28].

Reviews of additional literature identify significant challenges within academic settings, e.g. discipline-based pedagogical differences, changes in technology, disagreement on curricula and others. All of which detract from instructors' time to integrate feedback from industry about developing employment skills. Similarly, industry settings experience these challenges, although described from different perspectives ranging from global, domestic, demand side to supply side of the marketplace [29], [30], [31], [18],[20],[32],[33],[34]. In general, these challenges show there is a need to explore the perceptions of decision-makers at higher education institutions and learning technology companies on suitable resources for an academic setting which prepares business majors for the global workplace.

It is plausible to suggest these challenges might impede collaborations between academicians and practitioners in terms of addressing the needs and wants of both stakeholders. Taken together these findings might explain perceived academic **gaps** in developing business majors' knowledge and skills expected for employment. As a consequence, business majors are more likely

to have limited knowledge about what industry values, such as, the importance of possessing transferable skills [35],[36], [37], [38], [39], ]40]. For example, given technology's profound impact on skills that employers want from business graduates, prior to graduating, business majors should be able to demonstrate an awareness of paradigm shifts brought about by continuous technological changes [41], [42], [1], [43].

Hence, a reasonable strategic plan should be to adopt an LMS which facilitates via features and functions options that allow adjustments to course content and applications consistent with technological changes. For instance, this might consist of non-technical topics which equip students with skills for communicating across cultures, generations, and other group characteristics inclusive of **apps (software applications), i.e. computer programs designed to complete specific functions.** In doing so, business majors should be able to contextualize applicable knowledge and apply transferable skills when entering the workplace. Thus, the strategic plan must embrace collaborations between academicians and practitioners to lessen perceived **gaps** in preparedness and employability skills. The following describes a pilot study designed to identify where **gaps** exist in the expected technology skills of business majors as identified by industry representatives.

## II. RESEARCH ELOBORATIONS

Within the context of bridging the gap between *theory* and *practice*, the author, a business professor, audited a core course, Business Communication, to identify usable data which might accommodate adjusting the course and/or specific applications related to emerging communication tools and technologies to address industry expectations. The business communication course serves as a required skill based core course for undergraduate business majors across disciplines (e.g. accounting, finance, general business, insurance and risk management, international business, management, management information systems, marketing, and supply chain management). After the audit, invitations were sent to twenty-five industry representatives from various organizations to participate in a round-table discussion about expected knowledge and skills related to communication tools and technologies. All twenty-five industry representatives, each matching majors offered by the college, agreed to participate in the discussion. The discussion was guided by data from the audited which focused on topics and assignments related to paradigm shifts brought about by continuous technological changes.

We discussed the use of LMSs in higher education and challenges associated with support instructional strategies and student learning. Threaded in the discussions was literature related to users; satisfaction which included limited features and functions of LMSs. Selected examples of modules (topics and assignments) customized in an LMS were used to show how students are introduced to discipline-based communication technologies. These modules are designed to help students develop knowledge and skills applicable to a variety of workplace settings. The presentation showed some of the LMS's limitations with respect to external features and functions. This method allowed industry representatives to view the matter from an academic perspective to determine **gaps** in preparedness and

employability skills. Options were presented that encouraged the need for external industry collaborations to develop course contents inclusive of practicing communication technologies via a reality-based specific workplace setting specific to their discipline (majors).

A key outcome from the discussion was an invitation for business majors to visit the various organizations represented. This pilot agreement allowed industry representatives to showcase via their organizational settings workplace technologies in terms of expected performance applicable to each major. To accommodate this invitation, the author selected a business communication course given its diverse pool of business majors, created discipline-based teams and planned a flipped course design, i.e. "that which is traditionally done in class is now done at home, and that which is traditionally done as homework is now done in class [44]." This course design encourages student to prepare before coming to class in order to facilitate a variety of high impact in-class activities. With this in mind and the pilot study's objective, *to identify where gaps exist in the expected technology skills of business majors as identified by industry representatives*; the author developed and administered a pre-class survey using the survey tool Qualtrics. Students enrolled in the selected course were instructed to complete the survey before class and before reading related course material about the topic.

## III. RESULTS

Results from the survey supported industry concerns about business majors' preparedness in terms of technological readiness for the workplace. Although the sample size (n=40) was small only (3) participants indicated (very satisfied) when asked *about perceived satisfaction with knowledge and skills related to discipline-based communication tools and technologies.* These findings were discussed in-class to highlight the importance of learning first-hand what kind of communication tools and technology are expected for applicable employment prospects. To illustrate the key findings from the survey, a pre-class reading assignment, [35], about college students' perceptions of preparedness for careers was used to engage and challenge participants. This set the course for a range of individual and team/work activities. Examples include: evaluating the primary needs of employers to improve employment prospects, conducting research to identify perceived gaps between business majors and industry representatives about expected technology skills, evaluating data sources for business research, drafting/revising legal and ethical messages using communication technology, preparing to present effectively in teams.

The flipped class design and activities allowed participants to prepare and meet with industry representatives for discussions about expected industry standards related to communication tools and technologies. Participants representing eight teams: general business, international business, management, management information systems, marketing, supply chain management and accounting (two teams); reported gaining "reality-based knowledge and practice" from the industry visits. In turn, teams prepared written reports and presentations to demonstrate their *understanding of paradigm shifts brought about by continuous*

*technological changes.* Activity takeaways were: participants invited their host industry representative to attend the presentations, each team presented findings about primary **apps** used by their host industry representative and all teams shared and compiled a summary findings of communication tools and technologies utilized at the various workplaces. A brief description of selected examples follow.

*Fishbowl Inventory* designed for small to mid-sized companies looking for a complete inventory management system without replacing QuickBooks for Accounting. Many companies using a combination of QuickBooks and Excel have said they need a more robust solution but are not ready for an enterprise-level ERP system [45].

*Square Up* is an easy to use program for any type of business and increases accessibility between users from different generational backgrounds. It is mainly utilized as a portable payment processing system. Square Up can track inventory, send alerts to circumvent low stock, send electronic purchase receipts via email and generates real time analytical reports [46].

*Salesforce* is a cloud based tool that helps more than one-hundred thousand customers and two million subscribers worldwide to manage people and processes. An easy-to-use application, Salesforce streamlines all steps of the sales process, including lead management, analytics, and forecasting. This application is utilized in industries such as divisions including Financial Services, Manufacturing, Media, Healthcare, Higher Education, Retail, and Non-profit organizations [47].

## IV. CONCLUSIONS

The collaborative approach during all phases of this study seemed to enhance engagement by all participants and at all levels. Participants, internal and external, followed instructions, completed agreed activities and met the pilot study's objective *to identify where gaps exist in the expected technology skills of business majors as identified by industry representatives.* It is important to be cognizant that this was a pilot study with a small sample size. However, these findings have a number of theoretical and practical implications, such as: using best practices from industry standards to revise business communication content and applications. As clearly articulated in an archived article retrieved from the accreditation organization AACSB, it appears that industry and academia are in agreement that business programs require dramatic changes to the curriculum that are aligned with the needs of the new global workforce. The case for making business programs more desirable has never been so critical. And, business schools need to quickly get on board with deep changes to their curriculums to avoid further declines [48]. Employers expect new graduates to contribute in meaningful and innovative ways once hired, thus, it seems reasonable for academic programs to make adjustments to accommodate that need [49]. In this case, as suggested technological change demands connections between education and employment. These changes will require continuous skill acquisition for professional relevance [50], [51].

Based on this, a reasonable best practice for academics to consider when assessing LMSs and related technologies might be to focus on options which best support collaborations with industry that accommodates development of twenty-first century

skills. The author of this articles recommends two key takeaways from a study, [52], about twenty-first century pedagogies which should help with accommodating and equipping students with competencies and skills.

Teachers must become comfortable with managing new forms of classroom dynamics and supporting multiple teams of students working independently, as they explore and gain new understandings and skills to prepare them for twenty-first century life [52], [53].

Real-world experiences merged with sustained engagement and collaboration offer opportunities for learners to construct and organize knowledge; engage in detailed research, enquiry, writing and analysis; and communicate effectively to audiences [52], [54].

The challenges related to changing communication tools and technology cited above suggest a need to address expected technology skills between academic and industry settings. Results from this pilot study contribute to pedagogies strategies in terms of options for developing and implementing "innovative" business programs, course content and applications. Business majors should be able to transfer meaning from their academic (*theory*) experiences into professional (*practical*) experiences required in the workplace. This article underscores the importance of selecting an LMS with options that facilitate reality-based experiences in order to provide business majors with experiences they might encounter in the workplace. Thus, this pilot study was a useful career development activity. Overall, it was mutually beneficial for all participants in providing insight about *bridging the gaps between academicians and industry perceptions.*

## REFERENCES

[1] AACSB International – The Association to Advance Collegiate Schools of Business. (2011). Recommendations to AACSB International from the globalization of management education task force. 3, Tampa, FLA. AACSB International.

[2] P. Hill, (2016). The Odd Couple: How Ed Tech Must Support Vastly Different Types of Professors. Retrieved from https://mfeldstein.com/tag/the-chronicle-of-higher-education.

[3] I. Dobre, (2015). "Learning management systems for higher education - An overview of available options for higher education organizations" Procedia-Social and Behavioral Sciences, 180, 313–320.

[4] P. Berking & S. Gallagher, (2016, June 1). "Choosing a Learning Management System (Ver. 7.0)." Advanced Distributed Learning (ADL) Co-Laboratories, 14, 40–62.

[5] [5] Brown, M., Dehoney, J., & Millichap, N. (2015a). "The Next Generation Digital Learning Environment." A Report on Research. Educause Learning Initiative paper. Retrieved from https://net.educause.edu/ir/library/pdf/eli3035.pdf

[6] [6] E. Dahlstrom, D. Brooks, & J. Bichsel, (2014, September). "The current ecosystem of learning management systems in higher education: Student, faculty, and IT perspectives."Research report. Louisville, CO: ECAR. Retrieved from https://net.educause.edu/ir/library/pdf/ers1414.pdf

[7] [7] F. Olsen, (2001) "Getting ready for a new generation of course-management systems." Chronicle of Higher Education 48(17):25-28.

[8] [8] B. Adams, M. Cummins, A. Davis, A. Freeman, G. Hall, & V. Ananthanarayanan, (2017). NMC horizon report: 2017 higher education edition. Austin, TX: The New Media Consortium.

[9] [9] M. Anshari, Y. Alas, N. Yunus, N. Sabtu, M. Hamid, & M. Smith, (2016). Learning management system 2.0: Higher education. In M. M. Pinheiro & D. Simões (Eds.), Handbook of research on engaging digital natives in higher education settings (265-278).

[10] [10] M. Chui, J. Manyika, J. Bughin, R. Dobbs, C. Roxburgh, H. Sarrazin, G. Sands, & M. Westergren, (2012). The Social Economy: Unlocking Value and Productivity through Social Technologies. McKinsey Global Institute.

[11] [11] I. Varner & L. Beamer, (2005). Intercultural Communication in the Global Workplace. Boston: McGraw-Hill.

[12] [12] R. Culatta, (2004). Top 10 reasons to mobilize – Chris Thomas (Intel). Retrieved from Wideopendoors.net/blog/archives/2004.

[13] [13] P. Sidhu & V. Calderon, (2014). Many Business Leaders Doubt U.S. Colleges Prepare Students. Retrieved from http://news.gallup.com/poll/167630/business-leaders-doubt-colleges-prepare-students.aspx

[14] [14] Southern Association of Colleges and Schools Commission on Colleges (SACS), (2012). The principles of accreditation: Foundations for quality enhancement. Retrieved from http://www.sacscoc.org/pdf/2012PrinciplesOfAcreditation.pdf

[15] [15] AACSB International – The Association to Advance Collegiate Schools of Business. (2007), Eligibility procedures and accreditation standards for business. Tampa, FLA. AACSB International.

[16] [16] AACSB International – The Association to Advance Collegiate Schools of Business. (2003). Proposed eligibility procedures and standards for business accreditation. Retrieved August 13, 2010, from http://www.aacsb.edu/conferences/events/seminars.asp

[17] [17] H. Yu, (2010). "Bring workplace assessment into business communication classrooms: A proposal to better prepare student for professional workplaces." Business Communication Quarterly, 73, (1), 21-3.

[18] [18] J. Hoover, R. Giambatista, R. Sorenson & W. Bommer, (2010). "Assessing the effectiveness of whole person learning pedagogy in skill acquisition." Academy of Management Learning & Education, 9, 192-203.

[19] [19] M. Bell, (2009). "Introduction: Changing the world through what and how we teach." Academy of Management Learning & Education, 8, 574-575.

[20] [20] D. Sapp & Q. Zang, (2009). "Trends in industry supervisors' feedback on business communication internships." Business Communication Quarterly, 72 (3), 274-288.

[21] [21] S. Goltz, A. Hietapelto, R. Reinsch, & S. Tyrell, (2008). "Teaching teamwork and problem solving concurrently." Journal of Management of Education, 32, 541-562.

[22] [22] P. Argenti, (2007). Corporate Communication. New York, NY McGraw-Hill/Irwin.

[23] [23] K. Smart & N. Csapo, (2007). "Learning by Doing: Engaging Student through Learner Centered Activities." Business Communication Quarterly, 70 (4), 451-457.

[24] [24] J. Marcus, (2017). Impatient With Colleges, Employers Design Their Own Courses. Retrieved from https://www.wired.com/.../impatient-with-colleges-employers-design-their-own-course.

[25] [25] C. Fabris, (2015). College Students Think They're Ready for the Work Force. Employers Aren't So Sure. Retrieved from https://www.chronicle.com/article/College-Students-Think/151289

[26] [26] American Management Association (AMA). (2010). Executives say the 21st century requires more skilled workers. Retrieved from http://www.p21.org/documents/CriticalSkillsSurveyExecutiveSummary.pdf

[27] [27] National Association of Colleges and Employers (NACE). (2009). NACE research report: Job outlook 2010. Retrieved from: http://www.naceweb.org

[28] [28] Partnership for 21st Century Skills. (2008). 21st Century skills, education & competitiveness: A resource and policy guide. Tucson: Partnership for 21st Century Skills. Retrieved from: http://www.p21.org/documents/21st_century_skills_education_and_competitiveness_guide.pdf

[29] [29] F. Moshiri & P. Cardon, ( 2014). "The State of Business Communication Classes: A National Survey." Business and Professional Communication Quarterly, 77, (3), 312-329.

[30] [30] The Experts (2013). Why Aren't Companies Getting Graduates With the Skills They Need? Retrieved from https://www.wsj.com/articles/why-aren8217t-companies-getting-graduates-with-the-skills-they-need-138176

[31] [31] J. Hoover, R. Giambatista, R. Sorenson & W. Bommer, (2010). Assessing the effectiveness of whole person learning pedagogy in skill acquisition. Academy of Management Learning & Education, 9, 192-203.

[32] [32] T. Russ, (2009)." The Status of the Business Communication Course at U.S. Colleges and Universities." Business Communication Quarterly, 72 (4), 395-413.

[33] [33] C. Markides, (2007). "In search of ambidextrous professors." Academy of Management Journal, 50, 762–768.

[34] [34] W. Bennis, & J. O'Toole, (2005). "How business schools lost their way." Harvard Business Review, 83, 96–104.

[35] [35] J. Selingo, (2015). Why are so many college students failing to gain job skills before graduation? Retrieved formhttps://www.washingtonpost.com/news/grade-point/wp/2015/01/26/why-are-so-many-college-students-failing-to-gain-job-skills-before-graduation/

[36] [36] S. Jaschik, (2015). Study finds big gaps between student and employer perceptions. Retrieved from https://www.insidehighered.com/news/2015/01/20/study-finds-big-gaps-between-student-and-employer-perceptions?width=775&height=500&iframe=true

[37] [37] Hart Research Associates. (2015). Falling Short? College Learning and Career Success. Rep. Washington DC: Association of American Colleges & Universities. Retrieved from https://www.aacu.org/leap/public-opinion-research/2015-survey-falling-short

[38] [38] W. Wastler, (2013). CNBC. "What's Missing in the Skills Gap? Um...the Basics. Retrieved from http://www.cnbc.com/id/101012437.

[39] [39] B. Little, (2011). "Employability for the Workers: What Does this Mean?" Education + Training, 53, 57-66.

[40] [40] K. Schuele & R. Madison, (2010). "Navigating the 21st century job search." Strategic Finance, 49-53.

[41] [41] M. Maceli & J. Burke, (2016). "Technology Skills in the Workplace: Information Professionals' Current Use and Future Aspirations." Information Technology & Libraries, 35(4), 35-62.

[42] [42] A. Welch, (2013). Survey Identifies Non-Accounting Skills Most Sought in Accountants. Retrieved from http://accountemps.rhi.mediaroom.com/2013-05-06-Survey-Identifies-Non-Accounting-Skills-Most-Sought-in-Accountants?_ga=1.164941239.948367282.1443470402

[43] [43] G. Mitchell, L. Skinner & B. White, (2010). "Essential soft skills for success in the twenty-first century workforce as perceived by business educators." Delta Pi Epsilon Journal, 52, 43-53.

[44] [44] J. Bergmann, & A. Sams, (2012). "Flip your classroom: Reach every student in every class every day." Eugene, OR: International Society for Technology in Education.

[45] [45] Fishbowl. (n.d.). Learn More: Fishbowl Inventory. Retrieved from https://www.fishbowlinventory.com/learn-more

[46] [46] Square. (2010, May) Credit Card Processing & Business Solutions. Retrieved from https://squareup.com/

[47] [47] Salesforce. (2015). Overview. Retrieved from http://www.salesforce.com/sales-cloud/overview/?d=70130000000ryrh&internal=true

[48] [48] S. Greenbaum, (2006). "B-School Critics Miss the Mark." BizEd, V (5), 56-57.

[49] [49] J. Smith & G. Clark, (2010). "Action research in a business classroom – Another lens to examine learning". American Journal of Business Education, 3 (7), 41-49.

[50] [50] J. Coleman, (2017). "Making Learning A Lifelong Habit." Harvard Business Review. Retrieved from https://hbr.org/2017/01/make-learning-a-lifelong-habit.

[51] [51] S. Walsh, (2017). Learning and earning: Lifelong learning is becoming an economic imperative. The Economist. Retrieved from https://www.economist.com/special-report/2017/01/12/lifelong-learning-is-becoming-an-economic-imperative

[52] [52] C. Scot,(2015) The Future of Learning 3: What Kind of Pedagogies for the 21st Century? UNESCO Education Research and Foresight, Paris. [ERF Working Papers Series, No. 15].

[53] [53] B. Trilling & C. Fadel, (2009). 21st Century Skills: Learning for Life in Our Times. San Francisco, California, Jossey-Bass/John Wiley & Sons, Inc.

[54] [54] B. Barron, & L. Darling-Hammond, (2008). Teaching for meaningful learning: a review of research on inquiry-based and cooperative learning. L. Darling-Hammond, B. Barron, P.D. Pearson, A.H. Schoenfeld, E.K. Stage,

T.D. Zimmerman, G.N. Cervetti and J.L. Tilson (eds), Powerful Learning: What We Know About Teaching for Understanding. San Francisco, California, Jossey-Bass/John Wiley & Sons.

AUTHORS

**First Author** – Dr. Chynette Nealy, Professor of Business Administration, University of Houston Downtown

nealyc@uhd.edu

**Correspondence Author** – Dr. Chynette Nealy
nealyc@uhd.edu
Telephone: 713-222-5367.