

CELL PHONES: BUSINESS STUDENTS IN THE BUSINESS LITERATURE

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(Publication Date: April 25, 2013)

Cell Phones: Business Students in the Business Literature

Abstract

Research on the topic of cell phones has proliferated over the past decade, particularly in scholarly publications. However, it appears that the majority of this research is concentrated in the technology, education, and social sciences disciplines. Moreover, recent reviews of the literature indicate that the scope of research on cell phones covers a vast typology (Piotrowski & Kass, 2013). In the educational arena, most investigations on academic applications of mobile communication target high school and college students. Since there is growing interest in cell phone research related to business students, it would be of interest to examine the major topical areas of research focus on the topic. To that end, the current study involved a bibliographic content analysis of the extant literature on cell phones (including mobile phones) related to business students. A keyword search of the business database *ABI/Inform* was performed in April, 2013). Of the 114 identified references on the topic of cell phones/business students, 107 were articles in scholarly publications. This subset was retained for further analysis. The authors developed a typology of specific subject areas, based on the content or focus of each article. Results were then tallied, across topical categories. In rank order, the major research areas of emphasis were: academic integrity, applications in business education, students' views on phone model upgrades, use in research data collection, marketing, and online instruction. The current analysis noted several neglected areas of research, including highly salient issues to industry such as cybercrime, company data breaches, online piracy, and identity theft. These findings highlight the discrepancy, at times evident in the literature, between popular topics in the media versus areas of emphasis in the scholarly literature. The authors urge researchers to adapt a multi-database search strategy, in order to obtain a comprehensive view of the extant research on cell phones, when conducting scholarly reviews.

Introduction

Nearly half (46%) of all cell phones today are 'Smartphones' according to a 2012 PEW Center survey report. Recent estimates indicate that over 90% of the U.S. population has access to a cell phone (see Dula, et al., 2011). At the same time that mobile devices have captured the imagination and utilitarian benefits of the public, researchers, from both the academic and public sectors, have been conducting scholarly work on various aspects of cell phone use, design, and applications (Goggin, 2006). Moreover, issues that call attention to controversial issues or serious drawbacks on the use of cell phones have not escaped professional scrutiny; for example, their use in cyber-bullying/stalking on college campuses (Piotrowski & Lathrop, 2012; Reynolds et al., 2012) and e-harassment in the workplace (Piotrowski, 2012).

Cellular Phones and Research in Higher Education

With the advancement of Web 2.0 technologies, the cell phone has reached near pinnacle status as the premier mode of communication (Levinson, 2004; Robinson & Stubberud, 2012; Wei, 2001). However, there has been a recent emergence on the application of the cell phone to enhance the academic experience of students in higher education (e.g., Aviles & Eastman, 2012; Engel & Green, 2011; Maguth, 2013). Some of these pedagogic functions permit students to a) access course content and assignments (Echeverria et al., 2011), b) obtain timely feedback on academic performance (Chen & Chao, 2008), c) facilitate group discussion and interaction between students and instructors (Motiwalla, 2007), and d) adapt to interactive collaborative learning systems (e.g., Zurita & Nussbaum, 2007). However, the opinion of educational researchers on the use of mobile phones as a platform for technology-supported learning experiences has been equivocal. Using a qualitative design, Hanson et al. (2011) found that college students are distracted from time spent on coursework and studying due to the exorbitant amount of time spent on social media, including cell phone use. One major concern regarding interpersonal etiquette, is that the Millennial generation will experience difficulties in adapting to appropriate business communication expected in the workplace (Hulett, 2013). At the same time, social media has been shown to have positive potential in organizational settings and the business world (Thomas & Akdere, 2013).

Reviews of the extant literature, with regard to cell phones, have been reported in the social sciences (i.e., Piotrowski & Kass, 2013) and education (e.g., Hopke & Marsh, 2011). Although there has been a proliferation of academic studies on the topic of cell phones in the business and management databases, a bibliometric analysis of this literature has not been reported. Such analyses are important in that topical trends shed light on specific areas of emphasis and de-emphasis in emergent research (Miles, 2011; Piotrowski, 2012).

Method

The present study aims to obtain an overview of the scope of research emphasis on the topic of the cell phone in business and related fields. The database *ABI/Inform* was the file selected as this database has been identified as a major bibliographic source in the field of business and management (Piotrowski, 2007). To that end, a bibliometric analysis of *ABI/Inform* was systematically performed (April 15, 2013), using a keyword search strategy for the terms *cell phones* or *mobile phones and business students*. This procedure yielded 114 reference citations to empirical studies, commentaries, books/chapters, and dissertation summaries. Only articles (n= 107) in scholarly journals were selected for further analysis. Based on the abstract of the noted reference, the authors tagged the reference with a descriptor that best represented that main topical focus of the research. A frequency tally, across the main categories, was maintained until all 107 references were scored. These scores were then tabulated for frequency counts on each descriptive category.

Results and Discussion

Table 1 presents the listing, in rank order, of the most researched areas regarding cell phones related to business school students. Interestingly, the area of academic integrity, usually within the context of cheating during online testing, was the topic most emphasized by researchers. Perhaps this reflects the concerns of educators on the potential of modern technology to impact the integrity of some students (see Guyette, King, & Piotrowski, 2008). Constructive use of cell phones in both teaching and learning have been suggested by some business faculty (Henderson & Chapman, 2012), and this educational application was ranked high in the current analysis. Rapid introduction of redesigned, up-garde, or competing mobile phone vendors has spurred on research on how business students view the current, emerging market in cell phone devices; this consumer 'reality' constitutes nearly 10% of the available research in the area. Moreover, it was not surprising that the advertising or marketing aspects of cell phones have garnered much research attention, as the business model for social media places an enormous amount of attention on viability issues. Furthermore, research on the mobile device interface was stressed to a moderate degree in the current analysis which supports prior research findings on the importance of the functionality and features of competing cell phone brands (see Piotrowski & Kass, 2013).

On the other hand, the current study identified several key areas that apparently are somewhat deemphasized by business school researchers. For example, privacy issues related to modern communication technologies have received much media attention yet it appears that researchers have such concerns as a low priority (see Table 1). Moreover, prior social science research on cell phones has a strong focus on social communication and relationship factors (e.g., Auter, 2007; Piotrowski & Kass, 2013); however, the current analysis did not corroborate these findings in the business literature. Interestingly, there seems to be scant interest by business researchers on the potential drawbacks of cell phone use by college-age students, such as mobile phone addiction (see Hong et al., 2012).

There are 2 topics that seem to be largely ignored in this restricted area involving business students. First, nefarious aspects of mobile phone use in cybercrimes (see Gerdes, 2013; Sugarman & Willoughby, 2013). Second, the potential employee friction, largely due to the generation 'gap', between digital 'natives' and digital 'immigrants' in the workplace (Vodanovich et al., 2010). These are highly pertinent issues in the general business literature, yet for some reason receive scant attention in investigations focused on business students.

Finally, the current study points to a cautionary note to researchers in the business-management field; that is, in order to obtain comprehensive coverage of select topics, it is both prudent and necessary to embrace a multi-database search strategy when reviewing the literature (Wu et al., 2012). Contemporary research is truly cross-disciplinary and international in scope, particularly literature on business-related topics.

Table 1. Rank Order of the Most Frequently Researched Areas regarding Cell Phones-Business Students

Typology	Frequency/Percent
Academic integrity/Cheating	16
Business education applications	13
Cell phone upgrade factors	10
Use in methodology/Data collection	9
Marketing/Advertising	9
Online instruction	8
Phone design/manufacturing	8
Cross-cultural factors	7
Interactivity-connectivity	5
Mode of communication preference	4
Privacy issues	3
Social interactions	3
Online shopping/banking	3
Security issues	2
“general” issues	7

References

- Auter, P.J. (2007). Portable social groups: Willingness to communicate, interpersonal communication gratifications, and cell phone use among young adults. *International Journal of Mobile Communications*, 5, 139-156.
- Aviles, M., & Eastman, J.K. (2012). Utilizing technology effectively to improve Millennials' educational performance. *Journal of International Education in Business*, 5(2), 96-113.

- Berry, P. (2009). Redesign of the undergraduate business curriculum: The way forward. *American Journal of Business Education*, 2(8), 55-63.
- Chen, G.D., & Chao, P. (2008). Augmenting traditional books with context-aware learning supports from online learning communities. *Educational Technology & Society*, 11(2), 27-40.
- Dula, C.S., Martin, B., Fox, R.T., & Leonard, R. (2011). Differing types of cellular phone conversation and dangerous driving. *Accident Analysis and Prevention*, 43, 187-193.
- Echeverria, A., Nussbaum, M., Calderon, J.F., Bravo, C., Infante, C., & Vasquez, A. (2011). Face-to-face collaborative learning supported by mobile phones. *Interactive Learning Environments*, 19(4), 351-363.
- Engel, G., & Green, T. (2011). Cell phones in the classroom: Are we dialing up disaster? *TechTrends*, 55(2), 39-45.
- Gerdes, L.I. (Ed.). (2013). *Cybercrime: Opposing viewpoints*. Farmington Hills, MI: Greenhaven Press.
- Goggin, G. (2006). *Cell phone culture: Mobile technology in everyday life*. New York: Routledge.
- Guyette, R.W., King, C.G., & Piotrowski, C. (2008). Business faculty views of online course cheating: Evidence for a cohort effect. *Organization Development Journal*, 26(4), 25-31.
- Hamill, L., & Lasen, A. (2005). *Mobile world: Past, present, and future*. New York: Springer.
- Hanson, T.L., Drumheller, K., Mallard, J., McKee, C., & Schlegel, P. (2011). Cell phones, text messaging, and Facebook: Competing time demands of today's college students. *College Teaching*, 59, 23-30.
- Henderson, R.G., & Chapman, B.F. (2012). Business educators' perceptions concerning mobile learning (M-Learning). *Delta Pi Epsilon Journal*, 54(1), 16-26.
- Hong, F., Chiu, S., & Huang, D. (2012). A model of the relationship between psychological characteristics, mobile phone addiction and use of mobile phones by Taiwanese university female students. *Computers in Human Behavior*, 28, 2152-2159.
- Hopke, K., & Marsh, P. (2011). Student cell phone use in college classrooms. *Psychology and Education*, 48(1-2), 47-58.
- Hulett, D. (2013). Too connected to care: A society lost in cyberspace. *Psychology and Education*, 50(1-2), 46-50.
- Levinson, P. (2004). *Cellphone: The story of the world's most mobile medium & how it has transformed everything!* New York: Palgrave Macmillan.
- Maguth, B.M. (2013). The educative potential of cell phones in the social studies classroom. *Social Studies*, 104(2), 87-91.

Miles, J. (2011). Research trends in the Academy of Management publications. *Journal of Management and Marketing Research*, 6, 1-31.

Motiwalla, L.F. (2007). Mobile learning: A framework and evaluation. *Computers & Education*, 49(3), 581-596.

Piotrowski, C. (2012). Areas of research emphasis in professional psychology: Past and current trends. *Journal of Instructional Psychology*, 39(2), 131-135.

Piotrowski, C. (2012). From workplace bullying to cyber-bullying: The enigma of e-harassment in modern organizations. *Organization Development Journal*, 30(2), 43-52.

Piotrowski, C. (2007). Sources of scholarly and professional literature in psychology and management. *The Psychologist-Manager Journal*, 10(1), 75-84.

Piotrowski, C., & Kass, S.J. (2013). The scope of cell phone research in the psychological literature. *Psychology and Education*, 50(1-2), 28-31.

Piotrowski, C., & Lathrop, P. (2012). Cyberstalking in college-age students. A bibliometric analysis across scholarly databases. *College Student Journal*, 46(3), 533-536.

Reyns, B.W., Henson, B., & Fisher, B.S. (2012). Stalking in the twilight zone: Extent of cyberstalking victimization and offending among college students. *Deviant Behavior*, 33, 1-25.

Robinson, S., & Stubberud, H.A. (2012). Communication preferences among university students. *Academy of Educational Leadership Journal*, 16(2), 105-113.

Sugarman, D.B., & Willoughby, T. (2013). Technology and violence: Conceptual issues raised by the rapidly changing social environment. *Psychology of Violence*, 3, 1-8.

Thomas, K.J., & Akdere, M. (2013). Social media as collaborative media in workplace learning. *Human Resource Development Review*, XXXXXXXXX

Vodanovich, S., Sundaram, D., & Myers, M. (2010). Digital natives and ubiquitous information systems. *Information Systems Research*, 21(4), 711-723.

Wei, R. (2001). From luxury to utility: A longitudinal analysis of cell phone laggards. *Journalism & Mass Communication Quarterly*, 78(4), 702-720.

Wu, Y.P., Aylward, B.S., Roberts, M.C., & Evans, S.C. (2012). Searching the scientific literature: Implications for quantitative and qualitative reviews. *Clinical Psychology Review*, 32(6), 553-557.

Zurita, G., & Nussbaum, M. (2007). A conceptual framework based on activity theory for mobile CSCL. *British Journal of Educational Technology*, 38(2), 211-235.

