Information Literacy in Top Schools of Business Evident to the Outside World?

John H. Seiler

Rutgers University – Mini-MBA Program
Business Analyst/ Publisher's Circulation Fulfillment (The New York Times)
Johnhseiler@gmail.com

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Abstract

Maintaining a competitive advantage in the business world has become an increasingly daunting task. As high-stakes big-business decisions raise equity in sections of the globe not seriously tapped before, companies look to their employees as assets to help make a difference. Those that are tasked with making unique and significant contributions to the bottom line are more often than not leaders who are equipped with a MBA from an accredited university. As much as having this type of credential may help graduates enter a new career, it does not necessarily indicate that they are equipped with the skills necessary to move a company into a higher tax bracket. The skills needed to obtain, decipher, analyze and plan around various pieces of vital information are fundamental aspects of information literacy. Is it safe to assume information literacy is part of the core curriculum of today's top MBA programs? Is it even safe to assume information literacy is an overall element found in most American Universities? Even if the answers to both these questions were a resounding "yes," how can we tell? The research conducted in this study examined the "search" functions on both Business and University-level web pages of institutions in U. S. News & World Report's Top 25 MBA Programs to determine if the presence of information literacy could be confidently acknowledged. Along with examining the state of information literacy in business programs across the country through peer review, we hope to come to a conclusive determination of where present-day programs stand.

1. Literature Review

The current state of the Information Literacy literature across the globe shows a strong congruence of understanding and acceptance of this concept among various disciplines and stakeholders. LILAC, the Librarians Information Literacy Annual Conference, defines information literacy (IL) as the ability to "find, use, evaluate and communicate information" which is a "cornerstone of learning and an essential skill in this digital age and era of life-long learning" (LILAC, 2011, para. 3). Most would agree that professional organizations and media coverage of reports on IL research often demonstrate and remind users that these skills are essential for all, and are useful for work in a variety of occupations and fields. Similar definitions have been recognized as the essential "capacity to recognize the need for information, and then identify, access, evaluate and apply needed information. An information-literate person is a person who has learned how to learn" (Bundy, 2000, p. 5). The American Library Association (1989) also explains that IL is a set of skills mandating individuals to "recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (ALA, 2010, para. 2). As both examples above reiterate, information literacy states that a person is cognitive of the fact that they are able to decipher information appropriately, and knows when those skills are necessary to take advantage of the information for a variety of purposes. The businessman or businesswoman, in training for the profession just as a doctor or a lawyer, needs to obtain these information skills before moving onto the rigors of their chosen career. The tasks required of an ever-changing business career require, if not demand, an individual to become extraordinarily fluent in information literacy to produce results, sustain company growth, and increase revenue for shareholders. As one scholar noted "No graduate -- indeed, no person -- can be judged educated unless he or she is 'information-literate'" (Candy, 1994, p. 102). The key term in this statement is the word "graduate." Graduates need to have this ability under their belt if they can even begin to take full advantage of the MBA they have obtained.

Research in the use of information literacy within business student circles has considerably increased over the last 10 years. Earlier in this topic's progression, scholars noted that "observation research studies have been conducted to determine the information-seeking behavior of users in various disciplines ranging from historians to scientists, but few studies identify the norms of behavior among business students in an academic environment" (Atkinson & Figueroa, 1997, p. 59). This type of examination is a relatively new area of study among those who monitor information literacy. How can this be? MBA programs have existed in universities for decades. Beyond the different veins of business

acumen, the ability to act and react based on information surely must be prominent in the most successful of programs. The burden may not be what the business school is providing but what the business community is asking for. Klusek and Bornstein (2006) note "research further demonstrates that despite the failure of the business community to embrace the concept of information literacy skills, IL skills are in fact highly valued in the field" (p. 19). Still others argue that perhaps that these IL skills are just not being named properly by fields outside of librarianship. Yet research continues which acknowledges that some of this incredulous ambiguity can influence university values. Klusek (2006) argues that "when the business community does not explicitly acknowledge the importance of information literacy, faculty are slow to integrate the teaching of information literacy skills in their classes, and business schools do not build information literacy into their curriculum goals" (p. 7). It appears a paradox has been exposed. While James Culley noted as far back as 1977 that "students must become sophisticated researchers if they are to succeed in an information-sensitive business world" (p. 293), there seems to be no proactive -- or for that matter systematic -- commitment by the business community to require it of its MBA employees, even though it is still essential for success almost 30 years later.

While information literacy is an essential addendum of any university librarian's Hippocratic Oath, there may be some confusion beyond the realm of campus life. The business community and higher education have what Klusek (2006) describes as the lack of a shared language. Corporations and businesses around the world have trouble even determining the difference between information literacy, library literacy, media literacy and technology literacy (Klusek, 2006, p. 4). The fact of the matter is that information literacy is neither library nor technology based at all. This confusion may lend credence to the theory that the business community may know what they want, but may be unable to adequately acknowledge what their modern high raking employees need in academic terms. The missing connection between academia and corporate stewardship may be the link to determining why information literacy is not highlighted in some MBA disciplines. The business community has some culpability in the lack of openly discussing their IL needs, but some blame may need to be shifted to the nature of information literacy as course content.

Applying information literacy to a business construct is not the simplest of feats to accomplish in this day and age. With many types of businesses inhabiting the global stage, it is quite easy to see how one industry's needs may not parallel the next. This "similar but different" notion also greatly pertains to business information literacy. In other words, being information literate in one business area does not necessarily mean being information literate in another -- even if both can be categorized as essential business functions in every sense of the word. Business programs face this obstacle everyday. How can they possibly prepare a student to be ready for all the types of endeavors he/she face will face in a lifetime when there are literally thousands of professions a MBA degree can offer? The enormity of opportunity complicates information literacy efforts further. Lavin's (1995) study found business information to be inherently abundant and diverse, while also being highly specialized and complex in terms of business resources & inquiries (p. 80). These quandaries have not only strained the curricula of business programs for years, but also put into question the explicit application of information literacy at all. Most scholars and librarians agree though, "as knowledge becomes outdated very quickly, students need information literacy skills to access, understand, and use current knowledge of their discipline…..a graduate 'cannot even be considered to be, even embryonically, a well-rounded person, unless he or she possess a degree of information literacy" (Feast, 2003, p. 81). The challenge seems to be derived from both business and school arenas, but what about those programs who have attempted to educate their business students specifically on information literacy, and calling at as such?

Exploring the values and tendencies of today's students yields important information about positive and negative trends in the academic community. In terms of information literacy and the problems it poses to business students, scholarly work has uncovered some interesting understandings about those receiving this so-called IL instruction. The first revelation is that business students are extremely task-oriented as compared to students in the fields of social science & the humanities (Simon, 2009, p. 250). This frame of mind easily strays from the complexities which information literacy instruction can present. The theory that business students are extremely demanding of target information and not prone to browsing or discovery also complements these findings. Another revelation about business students is their uncanny ability to overrate their own IL abilities, in similar quantities to today's general university populations. Even as far back as 1972, Lee and Read's work on business students concluded that "confidence in one's ability to use the library is not necessarily an indication of one's real ability" (p. 406). Here, not only is there evidence that the business student lacks properly fostered research skills, but also there is data which shows that he/she believes in already having adequate knowledge to proceed with research-driven assignments.

Similarly, teamwork around information-seeking and decision-making is a skill needed throughout school and into professional life. A majority of life's lessons, even beyond the business world, revolve around working together. Business students strongly believe in the idea of teamwork as it is promoted in many MBA programs (Atkinson 1997, pg.

69)). The problem with their teamwork in lieu of information literacy is the bastardization of the research assignment itself. Many business students elect a "research specialist" to handle information gathering in a group project, when in reality, assignments within a team framework require an entire group to work simultaneously with their varied IL skills to extract the most benefit from the project. This finding compliments theories that state business students are looking for immediate trade-offs via time spent inquiring and researching (Atkinson 1997, p. 69). Potential issues in obtaining information immediately have been found to stir up dissonance in business students. As Atkinson (1997) expounds, "if the student's expectations of an outcome do not match the actual retrieval, a form of dissonance may occur. Dissonance is defined as user recognition of the inability to achieve planned objectives" (p. 71). What may be more astounding is the rationale of contradictory messages from the faculty and curriculum of a business program itself -the push vs. the pull. The faculty and librarians constantly push the MBA student to use the available resources ready at their disposal to achieve maximum results. This emphasizes the major correlation to students between time and cost, as well as value (Atkinson, 1997, p. 69.). These competing forces, whether subconscious or not, strain the student's connection to the time and work necessary to attain true information literacy. A familiar situation thus results, as students do the minimum needed to get the project done, at the expense of learning skills well which will serve them in their future career paths. The message of IL as practice leading to expertise in the student's subject field is often thought to be so convoluted that "today's business students knows far too little about literature of his/her profession" even with an MBA degree in hand (Culley, 1977, p. 293). Is it possible that thirty years of work on this problem has not yet produced results?

The role of establishing information literacy as a core aspect of a business student's curriculum would usually be directed towards the caretakers of such knowledge, the university professors. These individuals develop coursework that intends to open an individual's mind to the possibilities of future scenarios. The question needed to be posed is whether or not their teaching methods embrace the tools available which support information literacy. In a study by Fiegen et al. (2002) at California State University San Marcos, researchers examined collaborative techniques between librarians and faculty on information literacy, and startling results were unearthed. Their work concluded that "throughout the process, professors often indicated a sense of being overwhelmed by the vastness of the information literacy outcomes" (p. 314). How can students possibly be able to accept arguments validating proven information literacy practices when their professors, who have been studying business-related subject matter for the majority of that student's natural life, are unable to grasp its capabilities? It appears as if these well-trained business-acclimated masters have just as much trouble as their apprentices in formulating business goals around information literacy matrixes. We must help the academics retain the public's confidence in their ability to prepare future businesspeople, and help alleviate the pressure they feel at keeping up with business needs while not working themselves in these new environments.

Change, especially at the university level where professors are known to their students as the be-all/end-all of foundational knowledge, does not always yield itself to new ideas so gracefully. As with anyone, human pride and job security play a role here. Culley's (1977) research uncovered a certain disposition amongst many professors in the early days of information literacy study. Many academics responded to librarian proposals by commenting, "I'm not going to get lousy student ratings by having my class do a library research project" (Culley, 1977, p. 296). This irony is not lost on modern users, either, although this comment came from business professors over thirty years ago. If simple research earlier can identify business students' shortcomings in relation to information literacy, surely professors who interact with these students on a regular basis must recognize the magnitude of the problem so much so that they dismiss the idea of information literacy all together. It all may seem too overwhelming to tackle. The epidemic of uninformed business students may not be solely contingent upon student predisposition to avoid IL, but to professor stubbornness, university bureaucracy, and public perception. In the mix, our shared goal of student skill development over time gets lost.

2. Methodology

The initial purpose of this research was to identify the presence of information literacy on graduate business school websites and their university level counterparts to determine areas of engagement in IL teaching and research. In October 2010, the researcher identified *U. S. News & World Report's* Top 25 United States Master of Business Administration (MBA) programs of 2010, and located their main university presence on the World Wide Web. Over the course of several days within the same month, the homepages of each University's main and graduate business school website were searched for evidence of information literacy activities. Upon finding the search box, the researcher and a partner independently entered a series of terms and compiled the number of hits received (see Table #1).

The terms *information literacy* (without quotes), *information literacy* (within quotes as a phrase) and *literacy* alone were entered as separate searches in the search boxes of the graduate business school and then of the university's main

site. All results were compiled and entered on a spreadsheet for data analysis. For the past 20 years, websites on the World Wide Web have become the virtual face of universities and companies alike. Websites can help promote, explain, and display who an institution is and what their main values are. Additionally, websites help organizations reach a broader audience they otherwise would have trouble contacting. Initially, by conducting such research, the researcher hoped to magnify those MBA programs that appeared to embrace information literacy and pinpoint those that lack such a commitment. Google results pages thus provide a month-to-month snapshot of an organization's web site, specifically those aspects of the organization which are meant to be seen by the outside world.

3. Results

3.1 Graduate Schools of Business Website Study

This pilot study of the top 25 business schools found the highest combined search results for Carnegie Mellon University with 1747. The school with the lowest IL search results was Dartmouth College with 2 hits. The average total result for all 25 schools was 208 hits. In searching the term "information literacy" (without quotes) the highest result came from Carnegie Mellon again with 870. The lowest result for the same search revealed Washington University at St. Louis with 1 hit. The average here was 101 hits, thus indicating information literacy returned in any near-word combination according to current Google settings. For the term "information literacy" (with quotes) the most hits came from Carnegie Mellon again with 870, thus indicating additional setting parameters. Searches of twenty of the twenty-five schools resulted in absolutely no hits at all for the phrase "information literacy." The average across all schools of business was 35 hits (obviously skewed greatly by the Carnegie Mellon results, as discussed later). In regards to the term "literacy" as a single word, the top business school was Stanford University with 437. The same search resulted in two business schools with zero results, those being Dartmouth and the University of Texas at Austin. The 25 business schools here saw 72 results on average for the term literacy in any context on their business school websites.

3.2 University Website Study

The university website with the highest combined tally of hits for all information literacy searches of the entire university website was Columbia University with 11,744. The lowest recorded hits came from Dartmouth College with 238. The average of all 25 university websites was 1844. Searching under the specific term "information literacy" (without quotes) found the highest tally from Columbia again with 5550 hits and the lowest with Dartmouth again at 51 results. The average for this category was 778 hits per site. In terms of searching "information literacy" (with quotes as a phrase), the University of California at Berkeley listed the most with 397 results. The lowest result came from Washington University at St. Louis with 11 hits. The average here was 110 results. The term "literacy" alone found Columbia at the top again with 6160 and Dartmouth at the bottom with 159. The average university website count of results for this single term was 956 hits.

3.3 Combined Business School & University Website Information

The business school with the highest percentage of hits per total combined hits was Carnegie Mellon with 68.7 percent. This school was the only one of the top 25 that found a majority of its hits coming from its business school site as opposed to its university website. In fact, Carnegie Mellon's business school had 33.2 percentage points more than the next business school, Stanford University at 35.5 percent, which was almost double the number of hits on these terms in any context. The business school with the lowest percentage of total university web hits was Washington University at St. Louis with 0.3 percent. The highest total business and university website hits came from Columbia University with 11,902 and the lowest from Dartmouth University with 240. The average total hits of both business and university websites for all 3 searches was 2052.

4. Analysis and Discussion

Naturally, any in-depth analysis of these search results must begin with a discussion of the search engine that drives these business school and university websites. And although the flaws of this methodology are clear, it is alarming that so many major U.S. universities do not display on their websites any details about information literacy as defined in and by

librarianship. Google search engines are used on nearly every single one of these fifty university websites. When universities use Google, they are provided with a search engine that is able to accommodate fast and "good enough" queries of keyword counts, but at the expense of content and contextual matches. These are significant issues that need to be brought up among those interested in properly marketing their IL successes and offerings. Many universities adopt the Google search engine for ease of use; while this is a familiar tool for users, the results are at times skewed due to pre-programmed frequencies, settings and algorithms. Nevertheless, universities with minimal mentions of IL will take note of this common searching feature and its potential to misrepresent their work.

If the user is not careful, the same result can be duplicated many times during a single search, as is the case with several of the results reported here. Certain searches cannot be distinguished from one another; in other words, many duplications of sites listed as "hits" occurred at various universities despite differing search terms. This presents even greater cause for alarm; if three or four page hits are returned from the same search -- which may in fact be the same exact web page with multiple uses of the terms in subsequent paragraphs -- then even fewer true mentions of information literacy activities are actually offered by these website counts. As with certain uses of the Google algorithm settings, while "information literacy" (with quotes) resulted in a certain number of hits, the same count was returned for "information literacy" (without quotes). What may be further troubling in this example is the neglect of the system to recognize quotation marks, completely undermining the integrity of countless searches, as well as revealing interesting staff choices and limitations of the engine itself.

The anomalies found in this study bring to light an issue that all other twenty-four schools experienced during this research. Most schools provided no more than 2 true search results of the term "information literacy" in quotes, and a majority did not have any at all. When searches were made with "information literacy" (without quotes) on the business school sites many revealed substantial instances of these terms near each other but not indicated as a phrase. Clearly, a basic search of this kind is disappointing even at the early stage of finding peers interested in IL efforts -- having the term "information" and "literacy" in a document does not necessarily mean they have any relation to each other. What becomes increasingly troubling is that these two words occupy the same lexicon in many disciplines; we must ask ourselves, how is it possible that a profession which organizes information allows its own advocacy to be diminished in this way? No matter how the searches were performed or how the results were analyzed, 'information literacy" at the top universities returns paltry results at best.

The revelation of IL at university level web searches naturally would help foster a faculty and community opinion about its importance and usefulness across disciplines. If an institution as a whole is familiar with and open to a certain idea, but this idea is not found in all facets of its school culture, it would be safe to assume that many of those neither recognize nor accept it. Much of the present discussion confirms valid concerns about information literacy's presence in business curriculum, and perhaps university-wide. However, these findings are hardly corroboration of the lack of IL at these institutions; simply put, we must make sure the outward representations of such work are not only clear but plentiful.

This study confirms one truth if no other-Google based search engines on university and business school websites have the potential to either greatly help or greatly harm our communication with present and potential constituents. Perhaps these schools are invested in long-term information literacy but standardize it under the guise of a different label. Possibly they do not feel comfortable exposing such proprietary characteristics of programs to fleeting passers-by. While our literature review discloses that the battles of information literacy are still being fought in today's business schools, the websites reviewed do not reveal one way or another as to the present stake which business schools may have in IL. While micro searches may help users experience an institution quickly and easily, a concerted effort to make the online presence of IL skills as essential to success in various fields would provide exponential evidence of the worth of this concept to business schools and throughout the academy.

5. Conclusion

The search for comprehensive information literacy within the corridors of business institutions is still a topic of great debate. While the literature reveals that IL is still in its infancy by most accounts, the magnitude of information literacy both needed and used outside the classroom cannot be denied. Many business schools seem to have an idea of what IL can do for their students, yet they are either unable or unwilling to make the wholesale changes required for full incorporation. Librarianship has, for the most part, taken control of placing IL at the steps of other disciplines, having allowed and encouraged them to embrace it over time. Surely, a combination of efforts including curriculum reform, pedagogical change, and marketing approaches should continue, and librarians and educators should as well continue to

seek those conditions which best exploit these synergies. If the contemporary language and formulas of information literacy neither accurately translate to the modern business student nor to his faculty, this must become a priority for a field so reliant and masterful at scholarly communication. This conflict can be ameliorated through careful and consistent collaboration between librarian and professor, even if we continue to find that library scholars are, at times, unable to reach beyond the parameters of their field. Teaching the tactical language of IL to the business professor regardless of his or her individual barriers can help build important life skills in maturing business students who will become the leaders of tomorrow.

This study of the Top 25 business schools concluded that search engines available at their corresponding websites revealed little about how these schools truly were imparting information literacy to their students. While results produced by Google-powered inquiries netted substantial results in some cases, most schools' outcomes produced more questions about the validity of the search engine's abilities than answers about the presence of information literacy. If information literacy efforts were indeed taking place, they were not returned at the top of most, if not all, university's search results lists for the term. Broad explorations in this round of investigation revealed troubling inconsistencies about the ways library efforts are portrayed on university-sponsored web pages, and indeed the lack of overall user-friendliness for finding this IL information is apparent to even experienced searchers. While disconcerting, the original intent of these search functions were not meant to allow the user to perceive the values, techniques or traditions of institutional learning. These keyword-only manifestations may be inappropriate for proper library advocacy and useful public website exposure to help the cause of IL and of librarians as instructional partners. Whatever the reasoning, this brief investigation showed that many of the finest business schools in America do not either actively or passively make information literacy efforts evident to the outside world; although we may suddenly want to ask the question "why?" we must also now consider our own roles in the answers to "why not?"

Table 1.

US News & World Report Top 25 MBA Programs of 2010										
Research conducted Oct 2010	Business School Website				Main School Website					
	Information Literacy	"Information Literacy"	Literacy	Total Hits	Information Literacy	"Information Literacy"	Literacy	Total Hits	Combined Hits	Bus/Total
Harvard	320	1	386	707	1000	126	1000	2126	2833	24.96%
Standford	500	0	437	937	717	82	907	1706	2643	35.45%
MIT	46	0	61	107	520	74	601	1195	1302	8.22%
Northwestern	39	0	60	99	275	30	332	637	736	13.45%
Univ of Chicago	23	0	32	55	444	37	579	1060	1115	4.93%
Univ of Penn	11	0	17	28	1000	71	1000	2071	2099	1.33%
Dartmouth	2	0	0	2	51	28	159	238	240	0.83%
Univ of Cal- Berkeley	184	1	249	434	1000	397	1000	2397	2831	15.33%
Columbia	61	0	97	158	5550	34	6160	11744	11902	1.33%
NYU	41	0	63	104	1000	83	1000	2083	2187	4.76%
Yale	7	0	8	15	339	46	338	723	738	2.03%
Univ of Michigan	36	0	42	78	641	316	754	1711	1789	4.36%
Univ of Virginia	13	0	18	31	88	23	302	413	444	6.98%
Duke	43	0	51	94	2560	98	5050	7708	7802	1.20%
Univ of Cal- LA	33	0	61	94	269	54	346	669	763	12.32%
Carnegie Mellon	870	870	7	1747	378	35	382	795	2542	68.73%
Univ of Texas-Austin	138	0	0	138	369	245	509	1123	1261	10.94%
Cornell	8	0	16	24	489	218	558	1265	1289	1.86%
Washington Univ-StL	1	0	2	3	461	11	532	1004	1007	0.30%
Univ of Souther Cal	31	2	34	67	72	23	187	282	349	19.20%
Univ of NC - Chapel Hill	45	0	64	109	692	253	765	1710	1819	5.99%
Univ of Indiana - Bloomington	31	1	33	65	300	234	319	853	918	7.08%
Texas A&M	2	0	2	4	438	69	468	975	979	0.41%
Univ of Maryland -CollegePark	36	0	45	81	393	97	368	858	939	8.63%
Notre Dame	6	0	15	21	399	63	284	746	767	2.74%
Average	101.08	35	72	208.08	777.8	109.88	956	1843.68	2051.76	10.53%

References

American Library Association. (1989). Presidential Committee on Information Literacy. Final Report. (1989). Retrieved December 12th, 2010, from http://www.ala.org/acrl/legalis.html.

Atkinson, J. D. III., & Figueroa, M. (1997). Information seeking behavior of business students. The Reference Librarian, 27, 58-73.

Bundy, A. (2000). Information literacy: The foundation of lifelong learning. Paper presented at the Lifelong Learning Annual Conference of the South Australian Association of School Parents' Clubs (SAASPC), August 15-16.

Candy, P. C., Crebert, G., & O'Leary, J. (1994). Developing lifelong learners through undergraduate education, Commissioned Report 28, National Board of Education and Training, Australia.

Cooney, M. (2005). Business information literacy instruction. Journal of Business & Finance Librarianship, 11(1), 3-25.
Cooney, M., & Hiris, L. (2003). Integrating information literacy and its assessment into a graduate business course: A collaborative framework. Research Strategies, 19, 213-232.
Culley, J. D., Healy, D. F., & Cudd, K. G. (1977). Business students and the university library: An overlooked element in the business curriculum. Journal of Academic Librarianship, 2(6), 293-296.
Feast, V. (2003). Integration of information literacy skills into business courses. Reference Services Review, 31(1), 81-95.
Fiegen, A. M., Cherry, B., & Watson, K. (2002). Reflections on collaboration: Learning outcomes and information literacy assessment in the business curriculum. Reference Services Review, 30(4), 307-318.
Klusek, L., & Bornstein, J. (2006). Information literacy skills for business careers. Journal of Business & Finance Librarianship, 11(4), 3-21.
Lavin, M. R. (1995). Improving the quality of business reference service. The Reference Librarian, 48, 71-98.
Lee, J. W., & Read, R. L. (1972). The graduate business student and the library. College & Research Libraries, 33(5), 403-407.
Leigh, J. S.A., & Gibbon, C. A. (2008). Information literacy and the introductory management classroom. Journal of Management Education, 32(4), 509-530.
McClure, R., & Sircar, S. (2008, July/August). Quantitative literacy for undergraduate business students in the 21st Century. Journal of Education for Business, 369-374.
Simon, C. (2009). Graduate business students and business information literacy: A novel approach. Journal of Business & Finance Librarianship, 14(3), 248-267.
Steven, C. R. (2007). Beyond preaching to the choir: Information literacy, faculty out-reach and disciplinary journals. Journal of Academic Librarianship, 32(2), 254-267.