Review

The grossly exaggerated and poorly argued death of the MIS degree: A commentary on the troubles with tabloid research

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This paper is aimed at refuting the use of suggestive, but highly misleading and substantively inaccurate titles in articles purporting to report on serious research findings. Using a recently published article on the Death of the MIS Degree, the absurdity of using a highly context-specific sample to draw broad and sweeping generalizations is highlighted. A number of other methodological flaws in the argumentation behind the *Death of the MIS degree* article are pointed out and a critical examination of the uncritical use of titles for their sheer shock value is presented. It is argued that such a practice is inconsistent with the traditions of academic research and has the potential to reduce it to that of tabloid journalism. While this is unfortunate in its own right, it is argued that a bigger tragedy is that this type of sub-standard "research" could sometimes be used by uninformed administrators, especially those with no appreciation of the true nature of Business as an academic discipline, to marginalize high quality MIS programs and faculty members delivering them----to the long-term detriment of the basic mission of any university and any school of Business. It is argued that a shortage of MIS graduates caused by misperceptions about the nature of MIS as well as the confusion created by the multiplicity of program offerings under similar names, has, in reality, elevated MIS to the status of a Business major where each graduate has three or four job offers in a salary range that is among the highest of Business majors. It is posited that on account of this imbalance, a market correction will ensue in a few years resulting in a resurgence in the enrollment in MIS programs and a revitalization of the MIS degree----a far cry indeed from the Death of the MIS degree.

Keywords: MIS Degree, Business School Enrollments, Research Methodology, Sampling, Statistical Analysis

INTRODUCTION

Relieve Arthritis Pain with Fresh Manure! Magic Wallet Never Runs out of Money! Woman, 79, Dies in Meatloaf Explosion! Hunter Shot by Dog! Concrete Enemas a Bad Idea, Docs Warn!

These are some actual tabloid headlines (Oelrich, 2004), the truth value of which does not require much by way of elaboration. In this paper it is argued that a potential contender for addition to the list, though from a different genre of publication, is an article, "Declining MIS whole Enrollment: The Death of The MIS Degree?" from the January 2011 issue of *Contemporary Issues in Education Research*. It can be shown that the above referenced article by Saunders and Lockridge (2011) with its reference to the "Death of the MIS Degree" in the title is indeed designed more for its shock value than for any reflection of its substantive findings. That anything even remotely purporting to be academic research should follow the model of tabloid reporting would indeed be a tragedy for academia. However, if ever there were any traces of doubt about this impending tragedy, Saunders and Lockridge join forces to show through their blatantly misleading title that such doubtsare ill-founded and that the tragedy is indeed already a-

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knocking at our doorstep.

This critique is organized around seven themes: choice of title, non-representativeness of sample, mixing and matching primary and secondary research, presentation of self-evident propositions as research findings, potential reasons for an upcoming resurgence of the MIS degree program, salary statistics for MIS graduates, and an analysis of the Catch-22 relationship between administrative actions and enrollments. The paper concludes on a cautionary note about the tendency to sensationalize mundane and insignificant survey findings through the use of misleading titles designed primarily for their shock value.

The Tabloid Mode of Titling

As Schaffer (2011) points out, "Since tabloids cannot rely on the hard-news value of their stories (or the reputations of their reporters) to sell copies, they must make use of other attention-getting devices to lure readers. One of these devices is the strategic placement of tabloids at the checkout counters of supermarkets, along with magazines and self-help booklets, so that bored customers might be led to look at them while they wait to pay." Such strategic placement is only a part of the story in attention-grabbing, though. The headlines are an important part of the tabloid business model in that they are designed to create the maximum shock value through their outrageousness or sheer absurdity. Since the level of long-term credence placed on the body of "knowledge" to be derived from tabloid journalism is negligible, tabloids continue to thrive on their business model, which focuses on the short-term shock value of headlines rather than on the substance of their reporting.

Regrettably, Saunders and Lockridge (2011) seem to follow the same line of reasoning in incorporating a suggestive and shocking term, "Death of the MIS Degree," in their title. Even a cursory glance at their abstract reveals that the authors neither make the case for the actual or impending death of the MIS degree nor do they make such a projection. Rather, they focus on "a perception gap between what IT professors believe is important and what potential employers see as important skills for new hires." Their abstract concludes with what might be termed the last straw for someone looking for a strong pronouncement on the Grim Reaper's upcoming visit to MIS degree programs: "Results suggest that graduates share the views (sic) that a perception gap exists. They tend to believe that their program needs to become more aligned with the needs of employers. Graduates believe that business leaders should be involved more closely in determining the direction and content of their program." Duh! What about the ballyhoo

about the *Death of the MIS Degree* in the title? It is legitimate to wonder if it is just a title in the tabloid tradition.

Non-Representative Sample, Sweeping Conclusions

One of the basic, if not elementary principles of sampling is that the sample should be representative of the underlying population. In a paper proclaiming to examine the *Death of the MIS Degree*, one would expect the survey to be based on a sampling of MIS degree programs from different universities and different regions with some representation given to accredited and non-accredited programs from all over the country, if not the world. However, the authors are content simply to survey graduates of Marshall University with a sample size of 42. [The fact that they sent the survey to nearly 600 people is irrelevant to the issue of sample size, which simply represents the actual responses received.]

From a survey based on such a severely restricted sample, it is statistically absurd to draw any meaningful conclusions about the future of the MIS degree program in the abstract and in a context-free sense. At best the study is suited for context-specific dissemination to the internal stakeholders of Marshall University through the institutional research wing of the University. Thus, if there is an impending death of the MIS degree program at all, it can be expected to be localized to Marshall University. Paradoxically, even such a conclusion is not justified by the authors' findings. The only discovery that the authors come up with is that MIS programs (clearly at Marshall University) would benefit from more "emphasis on employability"---almost as if such an emphasis is unique to the MIS degree, or even more fundamentally as if employability indeed lies at the core of the mission of university education. The insignificance of the study's conclusion is matched only by its irrelevance.

Methodological Issues, Mixing and Matching Primary and Secondary Research

The authors, who conducted the survey in 2009, report on the "average year of graduation" of the respondents as 2003. The notion of an average "year of graduation" as a statistic is not worthy of further comment, but even if one were to assume it to be representative of the respondents' year of graduation, there is a 6-year lag time between the year of graduation and the collection of data.

If the MIS students are not doing well, it raises the question: Who are these MIS students and againstwhom are they compared? The appropriate technique

would be for the authors to do a survey of all majors and then compare any relevant proportion for all majors with the corresponding proportion for MIS majors. Controlling for extraneous factors is critical if the comparisons are to be meaningful. Evidently, the authors do not see the value of committing their time and energies for such a tightly designed study. Rather they use the simple, but severely flawed expedience of computing the percentage for the MIS graduates from Marshall and compare it with every available percentage from *other* publicly available surveys. This mix of primary and secondary research does not wash.

The authors' conclusions about the MIS degree are devoid of any foundation in the facts of their survey or in the logic of comparative reasoning. Since the survey is of the MIS graduates of Marshall University, it would make sense to compare their performance with that of graduates from other majors from the same cohort at Marshall University. The authors do not collect these data, but instead use the NCES survey data (NCES, 2011) from 1992-93 and 1999-2000 graduates. These comparisons could speak to the unique characteristics of the economy in West Virginia as opposed to the regions from where the NCES samples are drawn. According to the introduction to WV Web quest (2011), "West Virginia has been stigmatized as being "backward", "uncultured", "uneducated", as well as being labeled as many other things. In many ways, West Virginia is like a third world country." Regardless of whether this perception is fully accurate or not, it is hard to deny that West Virginia is not exactly one of the states celebrated for the presence of high-tech businesses and any conclusions about the MIS degree in general based on a survey of graduates of one university in West Virginia are destined to be flawed.

The authors state, "On average graduates of the MIS program searched for three months after graduation before obtaining their first position. However, almost 31% of the graduates had obtained their first professional position before graduation and 56% had obtained a professional position within three months of graduation." Assuming that the percentages cited are independent, the second part of the statement does not seem to jive with the first part. If 31% of the graduates had obtained their first professional position before graduation, then, naturally, it would leave 69% of the graduates among the active job-seeking pool. This, in turn means that 13% (the difference between 69% and 56%) of the graduates are unemployed after the first three months.

According to the NCES survey data, "27.3% of all students were unemployed three months after graduation with (sic) an additional 13.1% only worked part time" (p.16). How does one justify the conclusion that MIS graduates of Marshall University are not doing as well as the national average for all students? First, other potential factors contributing to the differences are not examined. Second, if the percentages are assumed to be independent, it would seem that MIS graduates of Marshall are doing better than the pool of all students from the NCES survey (13% vs. 27.3%). No doubt, if one were to assume that the percentages cited in the authors' survey are not independent, the comparison seems to have some surface validity (because, in that case, the comparison would be between 44% for MIS graduates vs. 27.3% for all graduates), but it still does not resolve the more serious question of cross-sample comparison.

Another example of mixing primary and secondary research is to be found in the authors' comments on the employment success rates for MIS graduates. For the Marshall MIS graduates with the average year of graduation of 2003, the employment success rate is found to be slightly lower than that of Business graduates in the United Kingdom for the 2000-2001 academic year. Based on this, the authors make a remarkable leap about the quality of the MIS degree itself, ignoring constraints of quality, geographic disparity, and the completely non-representative nature of their sample.

Archimedes is reported to have said in the year 235 B.C., "Give me a place to stand and I will move the earth." Saunders and Lockridge (2011) seem to have taken a cue from Archimedes' valor in proclaiming, "Give us anypercentage from anywhere and we will tell you how the MIS graduates fare."

Self-Evident Propositions vs. Research Conclusions

In epistemology self-evident propositions are those whose truth value is accepted without proof. Sometimes moral and normative statements are considered as self-evident. Regardless of what field they come from, conclusions which are self-evident, by definition, do not need a research study or a survey to support them. Their validity is a logical and definitional requirement and as such their truth content requires no empirical validation, much less reference to other sources (Korukonda, 2008).

Some propositions in the field of education can be considered self-evident because their denial would be blatantly self-contradictory or in stark opposition to long-standing and well-established findings or criteria. For example, curricular relevance, academic rigor and interaction with the business community to ensure career orientation can be considered the equivalent of self-evident criteria for business education based on Carnegie and Ford Foundation reports of 1959 and the AACSB-sponsored Porter and McKibbin Report of 1988. Whether such career-orientation is consistent with the mission of a university is open to debate and beyond the limited scope

of the current paper. However, from the standpoint of AACSB's openly publicized position on this issue, for Saunders and Lockridge (2011)to conclude from a survey of 42 graduates of Marshall University that *MIS programs in general* would benefit from career orientation and relevance is tantamount to coming up with an elaborate proof for what is essentially a self-evident proposition that is not unique to the MIS major, but to any major in the Business discipline.

From Decline to Resurgence: Trends in MIS Enrollments

It is indeed a fact that the enrollment in MIS programs has declined in recent years, but the irony is that it does not translate to anything even remotely resembling the *Death of the MIS degree*. On the contrary, the decline in enrollment, caused by a number of misperceptions about outsourcing among other factors, has resulted in MIS being a major "in which graduates generally have three or four job offers and starting salaries near $50,000" (Parker, 2006).

The U.S. Department of Labor has been showing consistently high job growth projections for Information Systems management jobs. In the face of such a positive outlook, it seems an anomaly that enrollment for the MIS degree should be stagnant or on the decline. Foremost among the reasons for this is the tendency for many Business Schools is to hire Deans and Directors without intellectual roots in the School of Business and with degrees from peripheral disciplines such as Education or Communication. To make matters worse, not surprisingly, these business schools witness repeated hiring of faculty members who have no academic preparation in the discipline of Business Administration and are ill-equipped to appreciate well-established disciplinary boundaries such as those between MIS and OIS (Office Information Systems), or between Management and Marketing, or between Business Law and Business Ethics. In pursuing a path of corporatization where profit-seeking and conversion of academic curriculum into vocational training are promoted in the name of "serving students," administrators can usually get away with introducing and encouraging a system of evaluation of programs and curriculums in terms of head-counts and the criterion of where an investor might choose to invest his or her monies----a case of blind leading the blind, as it were. Some others, anxious to beef up their CV, might go even more cavalier, adopt a hopelessly short-term perspective, and put programs in moratorium and eliminate departments using a logic that runs like approximately like this*: If you were going to have a knee replacement surgery on one knee, you might as well go ahead and get the other healthy knee also replaced and be done with it!* This example is about as relevant for the decision as it is intellectually bankrupt even in standard surgical practice where this approach represents the exception rather than the rule. At one of the Business Schools that shall remain nameless,a newly hired Dean,with no experience, much less tolerance for alternative points of view, is known to have placed a just-revamped high-quality MIS program showing strong signs of improvement forcibly and unilaterally into moratorium and merging the department with a low-tech department with a predominantly temporary body of faculty members and a drastically low AQ/PQ ratio as per AACSB criteria.

A second reason for this phenomenon is the confusion created by a proliferation of similar-sounding programs (AMCIS, 2011). In the context of the U.S. educational system, a ready case in point is that of Office Information Systems, which is concerned with the use of technology for effective office management. In the American educational context, the focus of OIS is on clerical and secretarial aspects of information management. Word processing, office automation, printer management, data security are some of the topics that OIS is primarily concerned with. It earned popularity in the U.S. as a vocational program in the late 1970s to the mid-1980s and continues to be offered in vocational and community colleges to this day under several variations of the name, including business technology and office technology.

Office Information Systems programs are intended to combine training in office administration with technology to prepare students for positions of responsibility in business offices as executive secretaries, secretaries, and office managers. In a university setting these program offerings have been fringe offerings, typically located in schools of education or professional studies, or within departments of business education. However, if one looks at their evolution in the US, starting in the early to mid-1980s, these programs, because of their explicit vocational emphasis and continued lack of theoretical promise or foundation, have been forced to slowly migrate to community colleges and vocational training schools. In the US, a few programs staffed by faculty with questionable Business school credentials, however, have been intent on operating within the university environment in general and within Business schools in particular. Unfortunately, in what appears to be a tragedy for high quality Schools of Business, some "leaders" without any intellectual roots in Business and with backgrounds restricted to Education or Communication or one of the fringe disciplines (as far as Business schools are concerned), seem determined to reverse this trend, much to the chagrin of mainstream academics. Such trends are usually justified using tabloid research of the

kind cited here, so the informed academic in a quality Business school is well advised to be on the lookout for such misguided attempts to marginalize MIS faculty and the MIS programs.

In the landscape of American business schools dominated by AACSB, these programs have found it expedient to rename themselves as business information technology or some such variation and in masquerading as the more well-established and better known management information systems (MIS) program.   As many of college freshmen and their parents are not--- indeed cannot be expected to be--- well informed about the boundaries of a discipline as complex as MIS, some of them who are really interested in the MIS degree get diverted to these fringe programs because of their simplicity and ease of appeal, and this diversion, in turn contributes to the decline in enrollment in legitimate MIS degree programs of higher quality. It is in this connection and in the context of this discussion that it has been pointed out that "A cautious student, parent, or employer is thus well advised to go not so much by the name of the program as by a detailed review of the curriculum and the credentials of the faculty members" (Korukonda, 2009).

In the United States, it has been often been said that college education is one area where the consumer wants the least for his/her money. As The Statesman (2008) points out, "The fact of the matter is that in the garb of quantitative expansion, there has been total qualitative failure." Following Tillman's (2010) arguments, it is legitimate to expect an inverse correlation between academic standards in a program of study and the student enrollments in that program. To the extent that less rigorous alternatives are available, enrollment in programs of rigor tends to be a casualty and this could be a potential explanatory factor for declining enrollments in MIS programs.

One cannot overemphasize the importance of the fact that the above discussion pertaining to OIS and other fringe offerings is specific to the business school context of the United States. In Europe, the terminology of educational programs in Business has a drastically different dynamic and it is quite common for respectable and rigorous academic programs staffed by faculty members with impeccable credentials to be offered under the umbrella of Business Information Systems, Informatics, or *Wirtschaftsinformatik*.   In the United States, however, MIS has enjoyed a long and venerable tradition as a business major which integrates knowledge of computer technology with business skills (Ethie, 2002). AACSB, the premier accrediting body for business schools world-wide, states very clearly that, "For the purpose of determining inclusion in AACSB accreditation,

the following will be considered —traditional business, Finance (including Insurance, Real Estate, and Banking), Human Resources, Management, Management Information Systems, Management Science, Marketing, Operations Management, Organizational Behavior, Organizational Development, Strategic Management, Supply Chain Management (including Transportation and Logistics), and Technology Management" (AACSB, 2011).

On account of the decline in supply, the need for MIS graduates with their skills in technology and business is on the increase, rather than on the decline (see, for example, Locher, 2007). As Aiken and Michalisin (2007) argue, the current situation of shortage of IT workers is not likely to improve in the near future. Testimony by Bill Gates, Chairman of Microsoft in 2007, warning of the dangers to the US economy if the employers are not permitted to hire workers from overseas, is also prompted by the shortage of supply of qualified IT workers. This theme is echoed by a number of scholars in the field. For example, Granger et al. (2007) suggest that due to a sudden and drastic decline in worldwide enrollments by nearly 70 to 80% within a year or two, industry is "begging for more graduates with a business and technical background and is expecting an even greater shortage in the next few years. Despite reports of outsourcing of technical positions, there is a growing demand for IS graduates."

Salary Statistics

The above reasoning should provide the background for illustrating the fact that whatever the underlying reason--- ---misperceptions about the nature of MIS or the confusion created by the multiplicity of program offerings under similar names, or the perceived lack of IT jobs, or the outsourcing of IT related jobs----the decline in enrollment in the US has, rather ironically, elevated MIS to the status of a Business major where graduates receive starting salary offers in a range that is among the highest of all Business majors.

According to the NACE (2011) salary survey for the beginning offers of college graduates for the year 2010-11, the average salary offer for MIS graduates is reported to be $54,687, which is second only to Business Systems Networking/Telecommunications among all Business majors (see Figure 1 below).It is worth noting that MIS is the only Business major registering a staggering 14% increase in salary offer in January 2011 as compared to January 2010---the highest percentage increase compared to any other Business major (see Figure 2).
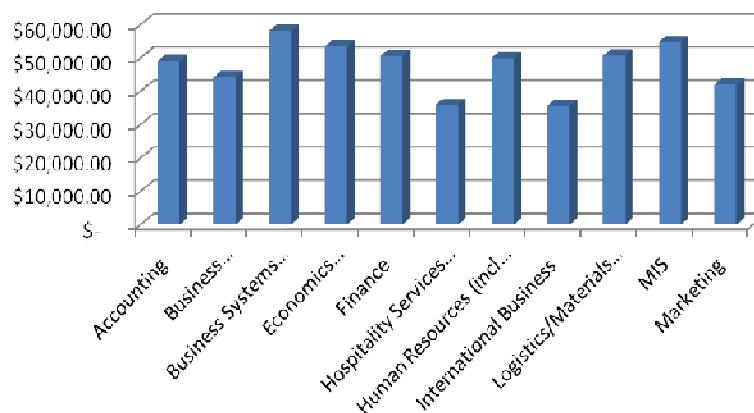
Figure1. Average Salary Offer by Business Major (Jan 2011)
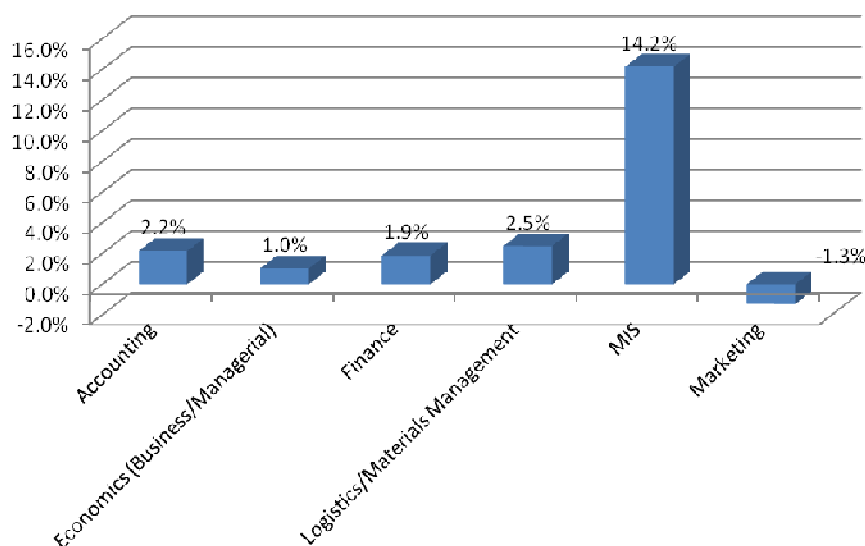

Figure 2. Percent Change in $ Offers from January 2010 to Jan 2011

Surging and ebbing of interest in MIS major has been a historical phenomenon. During the 1970s and early 1980s, interest in computer-related courses has increased by almost 300%, only to be followed by an equally spectacular plunge in the late 1980s (Astin et al., 1985-89; Cale et al., 1991). The enrollments picked up subsequently, only to be followed by a similar decline. If the historical trends are any indication, the current decline is bound to be followed by a correction in the enrollment trends. On account of this imbalance, a market correction can be expected in a few years, resulting in a resurgence in the enrollment of MIS programs and a revitalization of the MIS degree----a far cry indeed from the Death of the MIS degree.

Catch-22 between Administrative Actions

and MIS Enrollments

Where does the search for Administrative Rationality end? As it turns out, this boils down to a rhetorical question in most academic institutions and there is a Catch-22 relationship of sorts between administrative actions and enrollments in programs. The unfortunate reality is that in some Business schools, as in other schools, administrators are constantly on the lookout to find ways and means of marginalizing outspoken faculty members and the programs delivered by them. As a result, MIS programs and faculty members, like any other

program and faculty members, could sometimes be the target of such actions carried out under the guise of "achieving synergies" and "eliminating inefficiencies." It is important to recognize that such administratively biased actions are characterized by a few typical attributes some of which are listed below: (a) failure to take into account significant milestones unique to the MIS program (such as major curricular revisions to specifically address trends in the profession such as deemphasizing the programming focus) (b) use of an across-the-board and sufficiently long window of time (for example, a 10-year window) to compare MIS enrollments with those of other Business disciplines such as Management, Finance, Accounting, and Marketing which are relatively insulated from major changes in professional practice, (c) using "Insufficient Data" as the global excuse for protecting and promoting low-tech programs in place of more rigorous and high-tech MIS programs, (d) deliberately and sometimes falsely projecting MIS faculty and programs as white elephants in terms of student-faculty ratios and finally (e) using highly misleading "Tabloid Titles" such as the one discussed here to justify the actions. In trying to understand trends in enrollments, it is important to recognize and analyze such actions for what they truly represent.

The central point of the above discussion is to emphasize the fact that the relationship between MIS enrollments and administrative actions does not necessarily represent a one-way causal relationship; more often than not, it is representative of the political and administrative dynamic that is at play in any given institutional context at any time. Thus it behooves the higher administration to check for these potential errors of omission and commission before extending a blanket support to proposals designed to deliberately marginalize select programs and faculty members based on the short-term priorities of inexperienced and uninformed---if not incompetent---administrators.

Following Pfeffer (1977), administration in general tends to engage in exploring every available opportunity to justify its existence by "reinforcing a social construction of meaning which legitimates the role-occupants by attributing social causality" to administrative roles. Thus it is tempting for ill-informed administrators keen on resume-building to unilaterally undertake such measures as organizational restructuring, marginalization of MIS faculty, placement of MIS programs in moratorium, and to politically and administratively encourage the MIS students to switch their major based on fatally flawed methodologies and data interpretations. However, many of the college freshmen and their parents are not---indeed cannot be expected to be--- well informed about the boundaries of a discipline as complex as MIS. Some of them who are really interested in the MIS degree get

diverted to these fringe programs because of their simplicity and ease of appeal, and the administrators' political blessings. This, in turn plays its role in contributing to the decline in enrollment in legitimate MIS degree programs of higher quality delivered by far better credentialed faculty---a truly Catch 22 situation.

CONCLUSION AND CAUTIONARY NOTE

The title of an article offers an opportunity to the authors to provide a succinct statement of what their article is really about. It is also a unique opportunity to grab readers' attention. Thus, there is no question that the title must be chosen carefully to balance both these important goals.

Saunders and Lockridge have unquestionably framed their title in a provocative choice of words. However, the term, *Death of the MIS Degree,* in their title is not in the least justified by the content of their article. The authors have unquestionably, albeit unwittingly, contributed to reducing the quality of survey-based research to that of tabloid journalism. The methodological flaws in their paper are too severe to be taken lightly. This said, it needs to be emphasized that whether the authors and the editor realize it or not, the *Death of the MIS degree* paper is more than a mere showcase for sloppy research. What is really insufferable about the authors' enterprise is their choice of a highly misleading title in presenting their work of an utterly limited scope in grossly exaggerated terms.

In all fairness to the authors, it needs to be recognized that budgetary constraints of many small colleges and universities might sometimes make it prohibitive to conduct studies with large sample sizes. It is possible that Saunders and Lockridge (2011) study is limited by similar constraints. The purpose of this paper is not to ignore the realities of such limitations, but to merely suggest that in such cases, the authors would do well to resort to extensive use of secondary data and above all, to refrain from using highly misleading titles.

A misleading title can, unfortunately, serve to divert the readers' attention away from such limitations, whether they are explicitly acknowledged or not. Further, a strong and misleading title can be a potentially lethal weapon in the hands of administrators and colleagues who have a limited knowledge and expertise in the discipline of MIS and who lack an appreciation of the true nature of a Business curriculum or of the landscape of MIS. Administrators looking at the short-run benefits of cutting programs in the name of reorganization and restructuring find easy ammunition in such titles, especially when dealing with a large body of tired and micro-managed faculty members who are not inclined to fighting political

battles in which they have small and insignificant stakes. As a result,"administrators" with a short-term outlook might sometimes be able to get away with marginalizing a

robust MIS degree program by citing the title of an article such as the one by Saunders and Lockridge (2011) as the Holy Grail of current trends in Business schools. No one might care to go beyond the title and even bother to read the abstract, much less the entire article, and the administrator might succeed in marginalizing an MIS degree program or its faculty by effectively deploying a sleight of hand.

It is no doubt true that in the long run markets and organizations are self-correcting and wrong and hasty decisions such as these will be eventually reversed after a determined and protracted battle by faculty members with some courage of conviction. But, as Keynes famously noted, in the long run we are all dead, and enough damage will have been done by tabloid research of the kind cited here.

Enough said.

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