IS 2010 and ABET Accreditation: An Analysis of ABET-Accredited Information Systems Programs

Bruce Saulnier
Bruce White
Department of Computer Information Systems
Quinnipiac University (SB-DNF)
Hamden, CT 06518
Bruce.saulnier@quinnipiac.edu Bruce.White@quinnipiac.edu

ABSTRACT

Many strong forces are converging on information systems academic departments. Among these forces are quality considerations, accreditation, curriculum models, declining/steady student enrollments, and keeping current with respect to emerging technologies and trends. ABET, formerly the Accrediting Board for Engineering and Technology, is at present the only accrediting agency for Information Systems programs. This paper examines the influence of the release of the "IS 2010 Curriculum Guidelines for Undergraduate Degree Programs in Information Systems" on ABET accredited Information Systems programs. It begins with an historical overview of past information systems curriculum development efforts, and then follows with an overview of accreditation, both in higher education in general and of information systems programs in particular. The results of a survey of all ABET accredited Information Systems programs are then reported. The survey focused on two distinct yet interrelated issues that emerged with the release of IS 2010: (1) How does the absence of AITP input into the initial formulation of IS 2010 coupled with the lack of programming as a requirement in IS 2010 affect the attitude of ABET accredited Information Systems programs regarding seeking re-accreditation?; and (2) Does AIS discontinuing their financial support for ABET affect the attitude of ABET accredited Information Systems programs regarding seeking re-accreditation? The paper concludes with an overview of the effect of the release of IS 2010 on reaccreditation decisions of ABET accredited information systems programs.

Keywords: ABET, Accreditation, Model Curricula, Programming

1. CURRICULUM DEVELOPMENT EFFORTS IN INFORMATION SYSTEMS (IS)

Curriculum development efforts for baccalaureate degree programs in Information Systems have been ongoing for close to four decades. Driven by the recognition that the educational needs of those entering the business environment are significantly different than from those entering the field of computer science and/or computer engineering, the first "Curriculum Recommendations for Undergraduate Programs in Information Systems" (Cougar, 1973) was sponsored by the Associate for Computing Machinery (ACM) and prepared by the ACM Curriculum Committee on Computing Education for Management (C3EM). The report emphasized that although historically entry into information systems did not necessarily require a college degree, and in fact many information systems professionals at that time entered the field laterally from other disciplines such as accounting, the requirement for a college level degree was an implicit if not explicit requirement for information systems positions in medium to large size companies using third generation computing equipment.

During the mid- to late-1970s the Data Processing Management Association (DPMA) and the Association for Systems Management (ASM) were the two leading professional organizations for business computing professionals. Although the ACM curriculum recommendations were highly respected in academic circles, the recommendations were not widely distributed to nor did they receive much support from those in the business computer industry. Relying heavily on advisory councils composed of business computing professionals, most of the newly evolving undergraduate programs in Information Systems did not migrate to the ACM model.

In February 1979 the Information Systems department of California State Polytechnic University, Pomona (Cal Poly) hosted the first national conference/workshop on Computer Information Systems Education. The conference brought together representatives from industry and education to discuss and make recommendations for improving business computing education at the undergraduate level. This conference put forward the following positions: (1) there are significant differences among educational programs in information systems, computer science, and computer engineering; (2) programs in computer information systems

have the distinct primary goal of preparing entry-level applications programmer/analysts for commercial environments; and (3) it is desirable that a nationally recognized model curriculum offering guidelines in the development of educational programs in computer information systems be established. The conference concluded with the establishment of a task group to develop specific plans for establishing this model curriculum.

The success of the first conference attracted the attention of DPMA, who expressed interest in co-hosting with Cal Poly a second national conference to continue the curriculum development effort. The second national conference was held in January of 1980 and was attended by computing educators and industry representatives from around the nation. Discussion centered on a preliminary version of a model curriculum which developed as an outgrowth of the first conference. Evolving from the discussion was a set of core courses that all agreed should form the basis for all undergraduate programs in Computer Information Systems. As a result of the work from this second conference the DPMA Education Foundation agreed to sponsor the curriculum development project and to support its recommendation as viable standards for baccalaureate Computer Information Systems Education. A target date of June 1981 was tentatively set for project completion. In May of 1981 a draft of the report was presented at the First National Conference on Information Systems Education, and the final report (DPMA, 1981) was published later that year. The report was widely supported by industry and widely adopted by undergraduate programs throughout the country.

Over the years the 1981 model curriculum has undergone several revisions. In 1983 ACM published "Information Systems Curriculum Recommendations for the 80's" which was actually geared more toward the Management Information Systems (MIS) programs offered by large-scale research universities. The DPMA Model Curriculum was twice updated (1985, 1991) to account for both ongoing technological advancement and the changing environment in which business computing was taking place. Professionally, DPMA evolved into the Association for Information Technology Professionals (AITP) with an Education Special Interest Group (EDSIG) which sponsors the annual Information Systems Education Conference (ISECON). ASM, founded in 1947, disbanded in 1996 and re-emerged as the Association for Information Systems (AIS) with a very strong educational component which sponsors the Americas Conference on Information Systems (AMCIS) and the International Conference on Information Systems (ICIS). ACM has continued to flourish as the professional arm of computer science and computing engineering, and has remained active in educational curriculum development efforts through their special interest groups in Computer Science Education (SIGCSE) and Information Technology Education (SIGITE).

Of special interest is the fact that the educational arms of all three professional organizations (ACM, AIS, AITP) worked cooperatively to advance the field of information systems education. Their joint efforts produced both the 1997 and 2002 versions of the Model Curriculum.

In 2010 a new information systems curriculum model was unveiled – "IS 2010 Curriculum Guidelines for Undergraduate Degree Programs in Information Systems." This revision was different from the prior revisions in two significant regards – (1) IS 2010 was a joint effort of just ACM and AIS with AITP not represented in the curriculum development effort, and (2) the resulting curriculum guideline does not exactly match the current curriculum requirement standards of ABET's Information Systems Program accreditation in that programming has been shifted from a program requirement to an information systems elective for undergraduates.

2. ACCREDITATION OF IS PROGRAMS

Accreditation of colleges has occurred for over 100 years in the United States, dating back to early twentieth century initial efforts by the New England Association of Schools and Colleges (NEASC) to guarantee the quality of undergraduate education. According to the NEASC website, "In the United States, accreditation is the primary process for assuring and improving the quality of higher education institutions. Accreditation of nearly 3,000 colleges and universities is carried out through a process known as 'regional accreditation." In the United States, six regional accreditation commissions oversee the accreditation of almost 30,000 college and universities. The NEASC website further explains that, "Accreditation is a status granted to an educational institution or a program that has been found to meet or exceed stated criteria of educational quality."

In the United States, accreditation is voluntarily sought by institutions and programs and is conferred by non-governmental bodies. As accreditation is voluntary, there are institutions that are not accredited. But, as stated on the Michigan Department of Civil Service website, "Degrees from these institutions [non-accredited] will not be accepted by the Department of Civil Service as satisfying and educational requirements indicated on job specifications. Accreditation implies a stamp of approval that the institution accredited has undergone a rigorous analysis and review and has met or exceeded the stated criteria." While there are some unaccredited colleges and universities, they are generally considered to be of lesser quality and in most instances students are not eligible to receive federal financial aid for attendance at such institutions.

In addition to college and university accreditation, several academic disciplines have adopted discipline-specific program accreditation. The only agency that accredits information systems programs is ABET. ABET started in 1932 as the Engineers' Council for Professional Development (ECPD). In 1980 ECPD changed the name to Accrediting Board for Engineering and Technology (ABET), and in 2005 the name was legally changed to ABET, Inc. Currently, ABET accredits some 2,900 programs at more than 600 colleges and universities nationwide, as well as accredits international programs and works with other accreditation agencies. Organizationally, ABET has four accrediting commissions – Applied Sciences (ASAC), Computing (CAC), Engineering (EAC) and Technology (TAC). Information Systems, Computer Science, and Information Technology are all considered to be under the auspices of the Computer Accreditation Commission.

Accrediting of computing programs started in 1985. As stated on the ABET website, "In response to the anticipated boom in computer science education, ABET helped establish the Computing Sciences Accreditation Board (now CSAB) in 1985. CSAB is now one of ABET's largest member societies with more than 300 accredited programs." But that accreditation was for solely for computer science programs. In 2000, AIS began an investigation into the accreditation of information systems program. Representatives from AIS began its interaction with the existing computing accreditation commission organizations of ACM and IEEE-CS (the Institute of Electrical and Electronics Engineers – Computer Society), and AIS officially joined CSAB on October 1, 2001. The first information systems program to be accredited was Pace University in 2002. As of May 2010, thirty-four information systems programs had been accredited by ABET under the auspices the CAC. Thirty one of those programs are in the United States and the other three are in Dubai, South Africa and Mexico.

3. PROBLEM STATEMENT

Two recent developments prompted this study:
1. AIS opted to stop financially supporting the CAC of ABET, leaving the CAC with only two members: ACM and IEEE-CS.
2. A new information systems curriculum model was unveiled – IS 2010 Curriculum Guidelines for Undergraduate Degree Programs in Information Systems. This curriculum guideline does not exactly match the current curriculum requirement standards of ABET's Information Systems Program accreditation.

The first issue, AIS stepping away from involvement in the CAC, leaves the CAC with only two organizations: ACM and IEEE-CS. Generally IEEE-CS and ACM are associated with Computer Science and Technology programs, while AIS was more focused on Information Systems programs. Some Information Systems academics are concerned that ACM and IEEE-CS may not effectively reflect information systems courses and philosophy.

With respect to the second issue, the IS 2010 Curriculum Guidelines do not match the ABET standards in two major areas. The ABET accreditation standards for curriculum require, among other things: "Information Systems: One year that includes:

- coverage of the fundamentals of a modern programming language, data management, networking and data communications, systems analysis and design, and the role of information systems in organizations, and
- advanced coursework that builds on the fundamental coursework to provide depth. [IS]" (ABET CAC Criteria, 2010, online)"

The IS 2010 Curriculum Guidelines call for seven required courses as follows:

- IS 2010.1 Foundations of Information Systems
- IS 2010.2 Data and Information Management
- IS 2010.3 Enterprise Architecture
- IS 2010.4 IS Project Management
- IS 2010.5 IT Infrastructure
- IS 2010.6 Systems Analysis & Design

- IS 2010.7 IS Strategy, Mgt, and Acquisition

In particular the two areas of concern are: (a) Coverage of the fundamentals of a modern programming language, and (b) "one year", which is commonly interpreted to mean 30 semester hours. Of note, there is not a programming / applications development required course in IS2010, and because most academic programs require at least 120 credits – with the assumption that courses are three credits each – "one year" is interpreted by ABET as thirty credits whereas IS2010 would normally be implemented in seven courses (or 21 credits).

Our study therefore seeks to answer research questions from the standpoint of information systems programs that are currently ABET accredited. In particular, we seek to uncover the attitudes of the faculty leadership of ABET accredited information systems programs to the following two questions:

1. Do the changes in the IS 2010 Information Systems Curriculum Guidelines (less than one year of coursework and no required programming course) impact the reaccreditation decisions of currently accredited Information Systems programs?

2. Does the withdrawal of AIS from ABET's CAC affect the reaccreditation decisions of currently accredited Information Systems programs?

4. METHOD

In May and June of 2010 a survey was conducted of all thirty-one (31) Information Systems programs that were accredited by ABET as of May 1, 2010. In our survey we found two schools that were not going to seek reaccreditation and they informed us that they chose not to complete our survey. Of the remaining twenty-nine (29) programs, we had twenty-five (25) responses for an 86% response rate.

The survey itself (Appendix) consists of 9 multiple choice questions and 2 open-ended short-answer questions administered via Survey Monkey over a one month period. Areas covered in the multiple-choice portion of the survey included demographic information, alignment of the academic unit both within the college/university structure and with a preferred professional organization, current curricular model followed, plans concerning moving to IS 2010, views concerning the two research areas under investigation, perceived value of accreditation to the program, and likelihood of seeking reaccreditation. The two open-ended questions dealt with impact of AIS no longer providing financial support to ABET information systems accreditation and other issues and/or concerns with accreditation of information systems programs.

Following the administration of the survey, and prompted by the responses to the survey questions, direct input was sought and obtained from representatives of both ABET/CSAB and AIS. Private e-mail conversations were held with Steven Seidman, President of the Computing Science Accreditation Board (CSAB), Mary Granger, Vice President of Education of the Association for Information Systems (AIS), and Roy Johnson, Vice President for Accreditation of AIS.

5. RESULTS

An analysis of the qualitative results of the survey and a presentation of the quantitative results shows reactions of ABET-accredited information systems programs toward both the adoption of IS 2010 and whether or not such programs intend to seek ABET reaccreditation in light of the decision of AIS to withdraw financial support from ABET.

5.1 Academic and Professional Affiliation
Of the 25 currently ABET-accredited information systems programs that responded to the survey, 36% (9) are located in the School of Computing, 24% (6) are in AACSB-accredited Business Schools, 16% (4) in Schools of Technology, 16% (4) in Schools of Engineering, and 4% (1) in a business school that is not AACSB-accredited. Professionally, 40% (10) of the programs feel most closely aligned with AIS, 32% (8) with ACM, and 24% (6) with AITP. One program specified neither a university affiliation nor a professional affiliation, nor did they complete any of the survey questions as they felt that their answers would not be confidential.

5.2 Curricular Alignment
At the time of the survey (May 2010), 84% (21) of the programs followed the IS 2002 Model Curriculum. With the release of IS 2010, 20% (5) of the programs anticipate moving to IS 2010 in the near future (1-2 years), 24% (6) anticipate moving in more than 2 years, 40% (10) are not sure whether or not they will move to IS 2010, and 12% (3 programs) responded that they will not move to IS 2010. IS 2010 not requiring a programming course appears to be a significant issue in the decision to move in a large percentage of programs, with 40% (10) indicating that the lack of a programming course impacts their decision making, 12% (3) indicating that they are not sure whether or not it will impact their decision making, and 44% (11) indicating that the lack of a programming course will not impact their decision making.

A substantial 48% (12) of the survey respondents elected to provide written comments regarding this contentious issue. Comments were received regarding both the absence of a programming course and the new model curriculum in general. Typical of the comments received are as follows:
Regarding Absence of a Programming Course:
- "We do need a programming course; our students need to be employable and programming courses are very important"
- "May not implement IS 2010 fully; i.e., programming stays"
- "Even if we follow some of the recommendations, we will include programming in our curriculum. We feel strongly that those who manage should be able to do the work themselves, which requires programming skills."
- "We will still have a programming course. IS 2010 leaves room for a programming course, even though it is not mandatory"
- "Our curriculum has programming as a core concept. Even though a model curriculum de-emphasizes programming, we would continue to emphasize it."

- "It is likely that we will require a programming course."
- "We currently have 3 courses in our IS curriculum that require programming"
- "… We will still keep programming in our core."
- Regarding the IS 2010 Model Curriculum:
- "…We view the model curriculum as Guidelines, and thus need not follow every recommendation. So, we will prefer to follow the ABET standards for accreditation, which does require a programming course. I believe the IS2010 model made a serious omission by not requiring a programming course."
- "…We will not adopt the curriculum without appropriate consideration of ABET requirements, so it will be a hybrid approach with ABET utmost."
- "If we continue the information systems program, we want it to be accredited."
- "The combination of the two technical courses (hardware and networking) into one the new enterprise systems and IT strategy, management and acquisitions courses appeal to us."

The issue that concerns most respondents is the absence of a programming course requirement in IS 2010. Steve Seidman, President of the Computing Science Accreditation Board (CSAB) made this comment about IS 2010 lacking a programming course:

> "The current ABET accreditation criteria for Information Systems state that the curriculum must include 'coverage of the fundamentals of a modern programming language'. CSAB, along with the Computing Accreditation Commission of ABET, feels that this requirement is appropriate for an information systems program". (S. Seidman, private e-mail conversation, May 26, 2010)

5.3 Accreditation Considerations
A full 52% (13) of the ABET-accredited information systems programs perceive accreditation to be "very valuable" to their program, and an additional 36% (9) perceive accreditation to be "valuable." Only 8% (2) of the programs were not sure of the value to their program. Similarly, a very healthy 76% (19) of the programs state that it is "very likely" that they will seek accreditation, and an additional 16% (4) of the programs indicate that they are "likely" to do so. The decision of AIS to not continue their financial support for ABET appears to have little impact on decisions regarding reaccreditation, with a full 68% (17) of the programs indicating it is a non-factor, 16% (4) indicating that they are not sure, and but 12% (3) saying that they will factor the decision of AIS into their decision making process. Many comments were received regarding the interrelated issues of ABET-accreditation and the AIS decision to discontinue financial support of CSAB. A full 88% (22) of the respondents expressed opinions/concerns regarding these issues. Typical of the comments received are as follows:
- "…ABET definitely needs feedback from AIS to have an understanding about our field."
- "Since we are committed to ABET accreditation, AIS now has less relevance to our program and

will become marginalized in the view of faculty choosing where to publish or which conference to attend."

- "With AIS not having a seat … I would question whether or not the accrediting guidelines would reflect the mission of Information Systems as a discipline, and whether or not pursuing accreditation would be worthwhile."
- "We associate ourselves more with the College of Business rather than Computer Science. If AIS and the IS curriculum model deviate from the ABET IS accreditation requirements, we may decide to abandon the ABET IS accreditation."
- "It is sad that they made that decision."
- "It is disappointing … this change will mean less incentive to choose AIS as an outlet for our research … I hope that this change does not cause ABET and CAC/CSAB to move away from accreditation of Information Systems programs."
- "A real shame for AIS to not have a seat at the ABET/CSAB table."
- "It may impact our involvement with AIS. … casts a doubt as whether or not AIS represents IS programs."
- "We hope that reduction in funding will not inhibit ABET from accrediting IS programs."

Upon receiving numerous comments expressing this potential negative perception regarding the AIS decision, the authors contacted AIS leadership to ascertain their opinions on the issue. Mary Granger, Vice President for Education of the Association for Information Systems (AIS) stated:

"AIS (Association for Information Systems) is a global organization – with member schools from around the world. ABET IS accreditation is primarily an American issue. We do support the concept of continuous improvement in information systems education and programs (and in particular accreditation of information systems programs), but financially as an organization, we felt in this tough financial times, that we should support programs and activities that have more of a global view" (M. Granger, private e-mail conversation, May 23, 2010)

Similarly, Roy Johnson, Vice President for Accreditation for AIS stated:

"ABET is primarily a North American accreditation organization focusing more on IS computing programs than the more numerous IS business programs. AIS does fully support the new IS 2010 curriculum which is an excellent representation of the discipline with a continuum from Managerial to Technical courses. It was a VERY hard call, but it would have been fiscally irresponsible for AIS to continue spending a large proportion of a shrinking budget for basically a North American accreditation organization when we have global responsibilities." (R. Johnson, Private e-mail communication, May 31, 2010)

5.4 Other Issues
Forty eight percent (12) of the survey respondents viewed the last survey question as an opportunity to express their concerns and/or impressions regarding the interrelated issues

of IS 2010, accreditation, and the current structure of the Computing Accreditation Commission (CAC). Representative comments include the following:

- "IS 2010 will increase pressure on AACSB schools to minimize IS content and thus less likely to seek ABET accreditation. This cannot be healthy for this IS education community."
- "The IS 2010 draft is concerning. The move of programming from required to elective is concerning."
- "ABET is not very supportive of IS accreditation. CAC representatives focus on CS and are not knowledgeable of IS or IT. The CAC is narrow-minded when it comes to IS environments."
- "The new ACM curriculum is very MIS oriented and does not include some technical aspects of the profession that we think are still important for CIS majors. It is not the only force that is guiding our program."
- "I am concerned by the relatively narrow view some business school IS programs have about where IS belongs."
- "ABET should make a closer link between required subject areas (database, SAS, etc.) and program outcomes. … ABET should make stronger statements about faculty scholarship and professional development…. ABET should document the success of accredited programs."
- "We need more flexibility in developing objectives/curriculum that fit Information Science since we are not the same field as MIS."

6. CONCLUSIONS AND RECOMMENDATIONS

This study was embarked upon to examine two primary issues that presented themselves with the release of IS 2010. The first of these, AIS no longer providing financial support for CAC, appears to have created anxiety on the part of some currently accredited information systems programs. In particular, two concerns arose: (1) there is strong concern that program evaluators may not really understand the difference between CS, IT, MIS and IS programs, and (2) there is some concern that the withdrawal of financial support might adversely affect the unbiased nature of program accreditation.

The distinction between CS, IT, MIS and IS programs has engendered confusion for many years with the emergence of competing academic computing disciplines. We strongly recommend that our academic colleagues need to adopt widely accepted definitions of these four distinct yet interrelated fields of study. As commonly understood by IS faculty, Computer Science primarily involves the study of software development and programming, Information Technology involves hardware, software, and data communications, Information Systems primarily involves the study of business systems development and process improvement and as such includes IT, people, and processes, and Management Information Systems (MIS) studies the management of information systems. IS faculty, influenced by both ABET and AIS, have developed curricular norms consistent with these distinctions, but ABET program

evaluators who are predominantly CS or IT in background may not understand the different program focuses. The fear is that with AIS forfeiting their "seat at the table" there may be less informed program evaluators for IS programs. Nevertheless, most programs will seek to maintain their ABET accreditation as they perceive that the benefits of accreditation significantly outweigh the potential negative impact.

The second major concern is the curricular structure of IS 2010. IS programs are generally offered in one of two flavors: MIS and CIS. Concern was expressed that IS 2010 is predominantly a large-school dominated venture in which the resultant curriculum is more MIS oriented than CIS oriented. While it was acknowledged that MIS has a place in the curriculum, it was felt that the role of CIS just acknowledged in the historical trace of curriculum development efforts and the ABET accreditation requirements was being diminished by the release of IS 2010. While MIS programs may choose to adopt IS 2010 as is, most CIS programs will add programming as a required course. In general, currently accredited IS programs view IS 2010 as but a guideline for curricular decisions, one of many factors to be considered in adopting curricular changes. Other dominant factors are current ABET accreditation requirements and the realities of what current employers expect of program graduates. Unanimity of opinion was expressed to keep programming as a core requirement for information systems programs both by ABET representatives and representatives of currently accredited IS programs.

A brief period of time has passed since the survey was conducted. Although the initial "knee-jerk" reactions have subsided, there are still underlying concerns among ABET-accredited information systems programs regarding the effects of both IS 2010 and the decision of AIS to withdraw financial support from the CAC. Further, there are very real concerns regarding the ability of the CAC evaluators to accurately evaluate the effectiveness of Information Systems programs. Information Systems is a very young and still emerging academic discipline. The authors hope that it is possible to bring all concerned parties into a single setting where the agenda is not limited to just advocating for one's own opinion, but to honestly listen to the concerns of others. In an ideal world we would desire that AITP be invited to return to the ongoing discussions involving curricular guidelines. We would also recommend that representatives from ABET, AIS and AITP engage in ongoing dialogue to develop both accreditation requirements and curriculum guidelines that are consistent with each other such that individual information systems programs may be both ABET accredited and AIS/AITP curriculum compliant.

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AUTHOR BIOGRAPHIES

Bruce M. Saulnier is Professor of Computer Information Systems at Quinnipiac University in Hamden, Connecticut. A past-president and Distinguish Fellow of the International Society for Exploring Teaching and Learning (ISETL), he has been a featured speaker at numerous conferences focusing on the Scholarship of Teaching and Learning (SoTL). A past recipient of the Quinnipiac University Outstanding Faculty Member award and the 2007 recipient of the Information Systems Education Conference (ISECON) Best Paper Award, he was honored as recipient of Quinnipiac University's Excellence in Teaching Award and as the 2003 Connecticut Professor of the Year by the Carnegie Foundation for the Advancement of Teaching.

Bruce A. White is Professor of Computer Information Systems at Quinnipiac University in Hamden Connecticut. An AITP-EDSIG Fellow and past recipient of both the AITP Information Systems Educator of the Year award and the Quinnipiac University Excellence in Teaching Award, Dr. White received his Ph.D. from the University of Nebraska. He is an ABET Program Evaluator, on the ICCP Certification Council and the ICCP Educational Foundation. He was the chair of the ISECON Conference four times and has been active with AITP-EDSIG, AIS-SIG:ED and AIS-SIG:PAA

APPENDIX - SURVEY

The survey that was administered had 11 questions as follows:
1. Please identify your school (so we could track completion)
2. In which academic unit is your Information Systems program located?
    a.   AACSB accredited Business School
    b.   Business school not accredited by AACSB
    c.   In a school of technology
    d.   In a school of computing
    e.   Other
3. With which professional organization do you most closely identify your program?
    a.   AIS
    b.   ACM
    c.   AITP
    d.   IEEE-CS
    e.   Other
4. Which Information System Curriculum model do you follow:
    a.   IS 2002
    b.   IS 2010
    c.   IS '97
    d.   Other
5. Do you think your program will move to the IS 2010 curriculum model?
    a.   Yes, in the near future
    b.   Yes, but maybe a year or two before we switch
    c.   Not sure
    d.   We will not move to IS 2010
6. The most recent IS 2010 model curriculum doesn't fully match the ABET standards for accreditation (most notably, IS 2010 does not require a programming course). Will that impact your decision to implement IS 2010?
    a.   Yes
    b.   Not sure
    c.   No
    d.   Other
7. The Association for Information Systems (AIS) recently (fall 2009) opted to discontinue their financial support of ABET IS accreditation (i.e. they will NOT have a seat on the Computing Sciences Accrediting Commission - and therefore only ACM and IEEE-CS will be members of the CSAC). Will that decision impact your reaccreditation viewpoint?
    a.   Yes
    b.   Not Sure
    c.   No
    d.   Other
8. What impact does AIS not financially supporting ABET IS accreditation mean to your program? Please comment (essay)
9. What is your view on Information Systems accreditation's value to your program?
    a.   Very Valuable
    b.   Valuable
    c.   Not sure of its value to us
    d.   Not valuable
10. When your accreditation runs out, how likely are you to go for reaccreditation?
    a.   Very likely
    b.   Likely
    c.   Not sure at this time
    d.   Unlikely to go for reaccreditation
11. Do you see other issues / concerns with accreditation of Information Systems Programs? If so, please elaborate. (essay)

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