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Incorporating the Common Body of Knowledge for Business Process Management Certification in the MSIS Model Curriculum

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ABSTRACT

Business Process Management (BPM) certification is a relatively new area in the Business Schools and other similar academic units and it appeared in the curriculum about a decade ago. Industry stakeholders and a small number of higher education institutions have provided professional training and certification in this area since the 1990's. As more colleges and professional organizations develop courses, certificates, and programs in the BPM area, we hope to continue the dialogue between the academic and professional organizations to look at similarities and differences that may exist among the proposed BPM Common Body of Knowledge and guidelines proposed by professional organizations and existing academic IS model curriculum. This paper examines incorporating the BPM Common Body of Knowledge developed by the Association of Business Process Management Professionals, a leading BPM professional organization, in the MSIS model curriculum. The paper also identifies the gaps that exist in the MSIS model curriculum to cover the BPM Common Body of Knowledge.

Keywords

Business Process Management Certificate Curriculum, MSIS Model Curriculum

INTRODUCTION

Over the last decade, Business Process Management certification has received significant attention in various businesses, professional organizations, and the academia. This is partially due to the fact that today's enterprises are a lot more information driven and, to achieve and maintain competitiveness, more attention needs to be placed on business processes and, in particular, agile BPM solutions. Not only do long-running and routine processes need to be automated, but attention also needs to be paid to automating the ad-hoc and non-routine processes to achieve competitiveness.

Global competition and economic conditions over the past several decades have forced organizations to improve and manage their business processes more effectively. In addition, globalization has resulted in the need for collaborative business processes in areas such as payment systems, customer relationship management, and supply chain management. In order to improve performance, organizations need to identify, document, analyze, measure, improve, and manage their business processes. Furthermore, organizations need to align their business processes with their own business and business partners.

Many organizations have relied on internal and/or external talents to train their employees to become better business and process analysts. In response to some of these needs and challenges, academic institutions have developed educational courses, training, and curricula in the area of Business Process Management or similar titles such as Business Process Modeling, Enterprise Modeling, or Workflow Systems. These kinds of curricula are expected to provide students with the required knowledge, skills, and hands-on training to become BPM practitioners. These curricula cover a wide range of topics including technical, organizational, process, and people related issues. In addition, non-academic professional and consulting firms have also developed BPM training and certificate programs that cover a wide range of areas.

Many organizations are finding that their ability to maintain a sustainable growth, competitive advantage, and prosperity depends on their expertise to better manage their business processes across their entire enterprises. Some organizations are also finding that most of their employees lack the experience and skills needed to function as process analysts. In spite of these needs and challenges, not many institutions of higher education are offering courses and certificates in the area of Business Process Management. For example, in one of the Midwest states in the US, there are only three Colleges of Business or similar units that have courses, majors, or certificate programs in the area of Business Process Management. Bandara, et al. (2010) states that world-wide "there are still only a handful of institutions that offer specialized education in BPM in a systematic and in-depth manner." Furthermore, they compare BPM programs in five universities from Australia,

Europe, Africa, and North America and conclude that globally there is a “heterogeneous view of BPM.” Given that this is the case, it is helpful for academicians and practitioners alike to formally incorporate the BPM Common Body of Knowledge into the MSIS model curriculum.

Traditionally, some basic concepts of BPM such as business process modeling, requirements analysis, and data/information architecture are covered in information systems courses such as Systems Analysis and Design and Database Management. However, the MSIS 2000 model curriculum (Gorgone, et al., 2000) did not include any specific courses in the BPM area. But, the revised version of the model curriculum that was published in 2006 (Gorgone, et al., 2006; Topi, et al., 2007) includes an Enterprise Models course in the curriculum. The education committee of the Association of Business Process Management Professionals (ABPMP) also regularly publishes its work related to the evolution of BPM as a professional discipline. Currently, Version 2.0 of the BPM Common Body of Knowledge is published (ABPMP, 2009). Anbazhagan (2010) suggests that adopting ISO 9000 standards can serve organizations as “a springboard for BPM.”

The next section identifies the more commonly known BPM certification organizations and describes the ABPMP’s BPM Common Body of Knowledge. Comparison is made with the contents of the MSIS model curriculum to identify knowledge areas of the Common Body of Knowledge that are not covered in the model curriculum. These areas are highlighted and suggestions are made in the model curriculum where potentially they can be incorporated.

THE STATE OF BPM CERTIFICATION AND COMMON BODY OF KNOWLEDGE

Several professional development organizations are offering curriculum and examinations leading to certification in BPM. Among them are:

- Association of Business Process Management Professionals (ABPMP)
- Association for Information and Image Management (AIIM)
- BPM Council
- BP Group
- BPTrends Associates
- SAI Global
- BPM Chile

The ABPMP, in particular, has been active in developing and publishing a BPM Common Body of Knowledge (ABPMP, 2009). The ABPMP is a vendor independent and non-profit organization. It is led by BPM professionals, and their proposed Common Body of Knowledge is geared towards practitioners and has been translated into French and German languages. The organization’s mission (ABPMP, 2009) is: “to engage in activities that promote the practice of business process management; to develop a Common Body of Knowledge for BPM, and to contribute to the advancement and skill development of professionals who work in the BPM discipline.” The organization has chapters in the US as well as abroad, and administers exams leading to the Certified Business Process Professional certificate. The efforts of ABPMP in developing BPM Common Body of Knowledge and the offering of courses and certificates by similar organizations have been helpful in the professionalization of Business Process Management.

Business Process Management Common Body of Knowledge

As part of its mission, the ABPMP develops and publishes *Guide to the Business Process Management Common Body of Knowledge* (ABPMP, 2009). The guide is also used as a basis for the ABPMP certificate. Version 2.0 of this guide is currently available and was released in 2009. The guide describes in detail a process-oriented rather than a functional view of organizations. The main purpose of the guide is “to identify and provide an overview of the Knowledge Areas that are generally recognized and accepted as good practice,” (ABPMP, 2009). The guide also provides various resources and references which are essential to understanding the BPM Common Body of Knowledge. It includes BPM model curricula at the undergraduate, Master’s degree, and MBA concentrations.

The guide defines Business Process Management as “a disciplined approach to identify, design, execute, document, measure, monitor, and control both automated and non-automated business processes to achieve consistent, targeted results aligned with an organization’s strategic goals,” (ABPMP, 2009). The guide organizes the BPM Common Body of Knowledge into nine knowledge areas. These areas and a summary of key concepts are presented in Table 1.

Knowledge Areas	Key Concepts
Business Process Management	Understanding of BPM definitions; foundations of BPM; end-to-end processes; BPM lifecycle; business architectures; critical skills set
Process Modeling	Understanding, documenting, communicating, measuring, and managing business processes; BPMN
Process Analysis	Understanding decomposition of, efficiency, and effectiveness of business processes, current and future processes, business analysis techniques
Process Design	Understanding of business processes' objectives and ability to create business processes' specifications; understanding of work flows, data recourses, financial and operational controls, technology platforms
Process Performance Management	Ability to monitor process execution to determine the efficiency and effectiveness of processes; understanding of planned monitoring of process execution and alignment of business processes and enterprise performance; development and use of performance metrics
Process Transformation	Understanding process improvement, redesign, reengineering, and change; organizational change implementation
Process Management Organization	Understanding concepts of process driven enterprises; cultural considerations; governance structures
Enterprise Process Management	Understanding process portfolio management; collaborative processes; process management maturity levels; standard practices
Business Process Management Technologies	Understanding technologies that support the planning, design, analysis, operation, and monitoring of business processes; business process management systems; BPM suites; BPEL, XML, and XPD L standards; SOA and Web services

Table 1. Summary of ABPMP's BPM Common Body of Knowledge and Key Concepts

As the knowledge areas and the key concepts in Table 1 indicate, the focus of the BPM Common Body of Knowledge is on processes, not functions in organizations. The guide provides a detailed description of the BPM Common Body of Knowledge and, as far as Business Process Management Systems is concerned, the guide is vendor neutral. A chapter of the guide is devoted to each of the nine knowledge areas listed in Table 1. The guide also presents and endorses the Business Process Modeling Notation (BPMN) that has become a widely accepted BPM notation in the industry.

THE STATE OF MSIS MODEL CURRICULUM

The two most recent MSIS model curricula were published in 2006 (Gorgone et al., 2006) and 2000 (Gorgone et al., 2000), respectively. These two model curricula recommend a set of courses and course sequences along with detailed course contents and descriptions. The 2006 model is a major update of the MSIS 2000 model curriculum. This model suggests a 30 and a 24 unit programs. The 30 unit program includes five different options. Among the changes made in the 2006 model curriculum is the inclusion of an Enterprise Models course to reflect the need of graduates to have the knowledge in the area of Business Process Management. The model I have adopted here is the 30 unit program. Table 2 shows the required courses in the curriculum that are grouped in three areas of IS Technology, IS Management, and elective courses. The MSIS 2006 model includes two prerequisites, Fundamentals of IS (IS2002.1) and Programming, Data, File, and Object Structures (IS2002.5). These two courses were included in the 2002 model curriculum and the descriptions of them are available from Gorgone, et al., 2003. The curriculum also includes two alternative requirements to cover Business Foundation courses.

Course Numbers (model curriculum)	Course Titles	Pre or Co-requisites
IS Technology		
MSIS 2006.1	IT Infrastructure	IS foundations courses
MSIS 2006.2	Analysis, Modeling, and Design	IS and business foundation courses
MSIS 2006.3	Enterprise Models	IS foundations courses, MSIS2006.1, MSIS2006.2
MSIS 2006.4	Emerging Technologies and Issues	IS and business foundation courses, MSIS 2006.1 and MSIS 2006.2
MSIS 2000.1	Data Management	IS 2002.5
MSIS 2000.3	Data Communications and Networking	IS 2002.1, IS2002.4, IS2002.5
IS Management		
MSIS 2006.5	Project and Change Management	IS 2002.1, IS 2002.5, and MSIS 2006.2
MSIS 2006.6	Policy and Strategy	MSIS2006.1, and MSIS2006.2
MSIS 2006.7	Integrated Capstone	All IS foundations and technology courses, all management courses
Elective		
MSIS 2006.8 or	Implications of Digitization	All IS business foundation courses
MSIS 2006.9	Human Computer Interaction	IS foundations courses

Table 2. MSIS 2006 Model Curriculum (Gorgone et al., 2006)

COVERAGE OF ABPMP's BPM COMMON BODY OF KNOWLEDGE IN THE MSIS MODEL CURRICULUM

Table 3 shows the above MSIS 2006 model curriculum with the extent that the ABPMP's BPM Common Body of Knowledge is covered in various courses. These are shown as covered (●), partially covered, (◐) or not covered (○). As it is shown in Table 3, a good amount of the ABPMP's BPM Common Body of Knowledge is covered in the MSIS 2006 model curriculum. The knowledge areas that are not covered (○) in at least four courses are: process performance management, process transformation, process management organization, and enterprise process management. Not every knowledge area needs to be covered in every course. However, adequate overall coverage of the Common Body of Knowledge is essential so that graduates of MSIS programs may be qualified to become BPM practitioners and potentially be able to obtain professional certification in this important area.

MSIS 2006 Model Curriculum (Gorgone, et al., 2006)		ABPMP's BPM Common Body of Knowledge (ABPMP, 2009)								
		Business Process Management	Process Modeling	Process Analysis	Process Design	Process Performance Management	Process Transformation	Process Management Organization	Enterprise Process Management	Business Process Management Technologies
MSIS 2006.1	IT Infrastructure									
MSIS 2006.2	Analysis, Modeling, and Design									
MSIS 2006.3	Enterprise Models									
MSIS 2006.4	Emerging Technologies and Issues									
MSIS 2000.1	Data Management									
MSIS 2000.3	Data Communications and Networking									
MSIS 2006.5	Project and Change Management									
MSIS 2006.6	Policy and Strategy									
MSIS 2006.7	Integrated Capstone									
MSIS 2006.8 or	Implications of Digitization									
MSIS 2006.9	Human Computer Interaction									

Table 3. Current Coverage of ABPMP's BPM Common Body of Knowledge in MSIS 2006 Model Curriculum

Table 4 summarizes these areas with specific topics that are not covered at all or are partially covered. The specific topics within the courses in the curriculum that could be covered are included in Table 4. The topics related to the knowledge areas are added to courses where these topics are not covered at all or are partially covered. As the knowledge areas in Table 4 indicate, most of the contents have to do with refocusing from business functions to business processes. As such, it seems feasible to incorporate the BPM Common Body of Knowledge in the MSIS model curriculum with limited additional time and by a judicious class time management in the affected courses.

MSIS 2006 Model Curriculum (Gorgone, et al., 2006)		A Partial List of ABPMP's BPM Common Body of Knowledge (ABPMP, 2009)			
		Process Performance Management	Process Transformation	Process Management Organization	Enterprise Process Management
MSIS 2006.1	IT Infrastructure	Use of more standards	Focus on people, processes, and technology	Clear governance structure	Support enterprise process improvement
MSIS 2006.2	Analysis, Modeling, and Design	More people and process focus	Better process design to minimize process changes	Clearly communicate all business processes to employees	Create and maintain metrics to remain customer centric
MSIS 2006.4	Emerging Technologies and Issues			Collaborative business processes	Business process management Systems
MSIS 2000.1	Data Management	Collect and maintain process performance metrics	Maintain accurate records of process expectations and actual gains	Focus on process management	Maintain and manage processes for process owners
MSIS 2000.3	Data Communications and Networking	More focus on activity-based costing	Focus on end-to-end business processes	Focus on end-to-end business processes	Define and communicate enterprise process management
MSIS 2006.5	Project and Change Management	Process performance metrics	Process owners' and management involvement for process change success	Change management due to process maturity	All processes need owners and need to be managed
MSIS 2006.6	Policy and Strategy	More emphasis on alignment of enterprise strategies and objectives	Better management of business process outsourcing, focus on better business process training	Create BPM office, process council, and BPM center of excellence	Align end-to-end business processes and enterprise business strategy
MSIS 2006.8 or	Implications of Digitization	Value added process performance metrics	Critical success factors	Impacts of process maturity	Process controls
MSIS 2006.9	Human Computer Interaction	Human-centered versus process-centered systems	Better process design	Human, technology, and process interaction	

Table 4. Topics from ABPMP's BPM Common Body of Knowledge that need to be incorporated in MSIS 2006 Model Curriculum

CONCLUSION

Globalization and increasing competition are forcing businesses to become more efficient. One way to achieve this is to focus on all business processes and to become a process-centric organization. To achieve this, businesses need to have trained work forces that are capable of integrating business and technology skills set to add value to business operations. The purpose of this paper is to provide an educational path to incorporate business process management curriculum into existing MSIS model curriculum. This paper reviewed and compared the contents of the MSIS model curriculum to identify knowledge areas of the ABPMP's BPM Common Body of Knowledge that are not covered in the model curriculum. These areas were highlighted and suggestions were made as to where in the model curriculum they can be incorporated. As more colleges and professional organizations offer courses, programs, and professional training in the BPM area, collaboration and dialogue need to continue between academic and professional organizations to incorporate an acceptable BPM Common Body of Knowledge in the MSIS model curriculum. This will allow the graduates of these programs to be qualified to become BPM practitioners and potentially be able to obtain professional certification in this important area. These efforts will also lead to a better understanding and recognition of BPM as a professional discipline.

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