

Educating the Next Generation of Global Information Managers

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Abstract- In this paper we examine the only T-Shaped, Atlantis-supported global dual degree program in Information Management, the International Bachelor's in Information Management. Atlantis promotes a student-centered, transatlantic dimension to a higher education and training in a wide range of academic and professional disciplines and funds collaborative efforts to develop programs of study leading to joint or dual undergraduate or graduate degrees. The Atlantis program, jointly administered and funded by the U.S. Department of Education's Fund for the Improvement of Postsecondary Education and the European Union's Education, Audiovisual and Culture Executive Agency, supports the level of international educational immersion recommended here.

Keywords: *Cross-Cultural Education, Management Information System, Dual Degree Program, Atlantis, International*

I. Introduction

Catalyzed by novel computing technologies, many of which are internet based, we are quickly moving towards a hyper-connected world in which companies, their clients and suppliers, as well as governmental institutions and citizens, are connected at any place, anytime from anywhere, and collaborate and exchange information real-time and on a global scale. Indeed, in today's complex and rapidly changing global marketplace our collective and individual prosperity relies increasingly on political, economic and social cooperation that transcends traditional national and cultural barriers ([1],[2]).

Since their inception in the 1980s, MIS programs have focused on information provisioning for management, including information system planning, decision support and control. During the last decade, however, the role of IT has changed dramatically, offering tantalizing opportunities for companies to catalyze innovation and gain unprecedented levels of competitive advantage by organizing themselves into globally integrated and networked organizations.

In response to these developments, there have arisen pressurizing market demands for a new breed of MIS and business professionals who are able to meet emerging requirements of modern, networked and internet-enabled organizations in the new Global

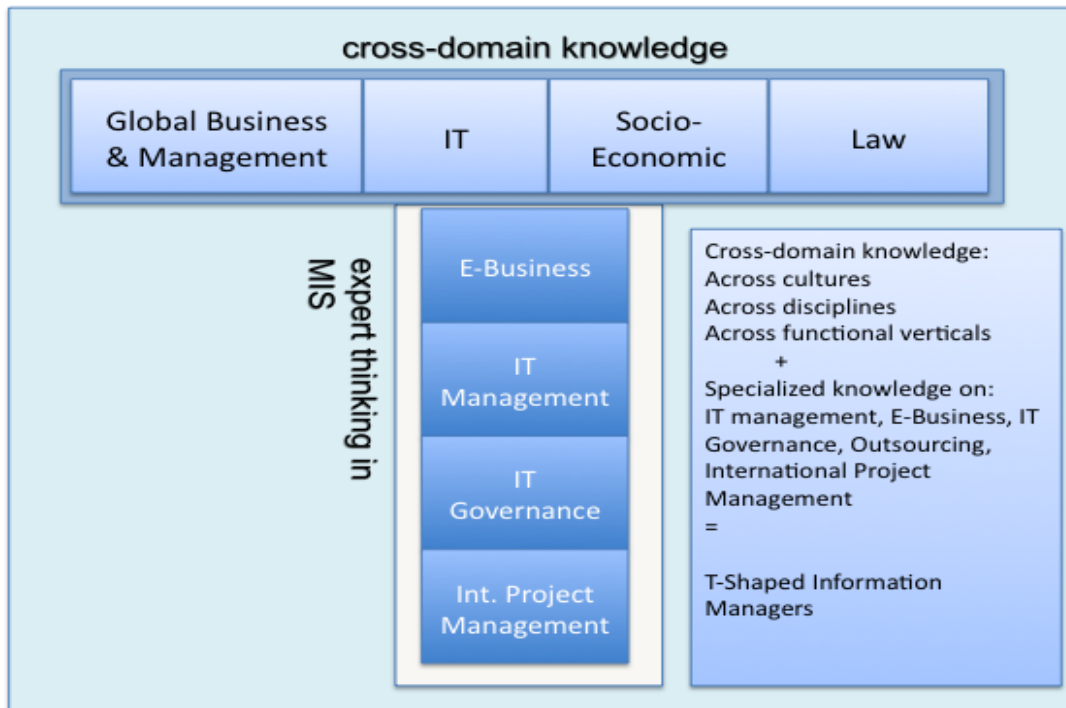
Economy, and address business and IT-related problems from a multi-disciplinary perspective. Such professionals are opportunity seekers whose main goal is to improve internal and external business processes. They are primarily interested in process improvement while leveraging new enterprise information systems. The aim is to assist in implementing an organization's strategy and to take advantage of technical or business opportunities.

Unfortunately, most business and IS educational programmes offer highly localized and specialized, mono-disciplinary, "I-Shaped" curricula that concentrate either purely on management or information systems. While some schools have begun to break away from such local I-Shaped programs, there is a need to accelerate this process at both the undergraduate and postgraduate level of university education.

Consequently, there are too few MIS professionals who can identify, assess and effectively address cross-cultural aspects of global business processes in conjunction with supporting enterprise information systems. Just as business processes cross the boundaries of companies and countries, future information managers must better understand and succeed with cross-cultural, legal, economic, ethical, interpersonal communication and collaboration implications of this dynamic model.

Clearly, there is a direct and urgent need for truly international, T-shaped educational programs [3] that sufficiently prepare students for a job in the global economy by combining breadth in cross-cultural and cross-discipline knowledge with depth of specialized knowledge on outsourcing/off-shoring IT, managing international IT projects, and management of IT in global companies (See Figure below.)

Figure 1 T-Shaped Professionals)



Higher education institutions are trying to formulate their global strategies and address these issues. While short-term exchanges (i.e., a few weeks or semester abroad) are a good starting point, they fall short of providing a profound understanding of cross-cultural, social, business and IS issues. Instead, what is needed is integrated cross-cultural and cross-discipline IS/MIS programmes which require longer periods abroad. Dual and joint degree international programs are excellent vehicles for such training, since they provide significantly higher levels of educational and cross-cultural experience than short-term cross-cultural study models. Colleges and universities throughout the world need to align their undergraduate and graduate programs accordingly [4].

The Atlantis program, jointly administered and funded by the U.S. Department of Education's Fund for the Improvement of Postsecondary Education (FIPSE) and the European Union's Education, Audiovisual and Culture Executive Agency (EACEA), supports the level of international educational immersion recommended here. Atlantis promotes a student-centered, transatlantic dimension to higher education and training in a wide range of academic and professional disciplines and funds collaborative efforts to develop programs of study leading to joint or dual undergraduate or graduate degrees. This program train students to be specialized in the overlapping fields of management and IT. It has in-depth cross-cultural emersion which is built in into the curriculum directly. Additionally, there is a positive externality effects that

emerge within cohorts and the surrounding cultural atmosphere. This kind of close and interactive environment will have a positive impact on perspectives and characteristics of student. As of October 2009, 94 institutions of higher education had acquired grants to start dual degree programs through the EU/FIPSE Atlantis project.

We examine the only T-Shaped, Atlantis-supported global dual degree program in Information Management, the International Bachelor's in Information Management, here.

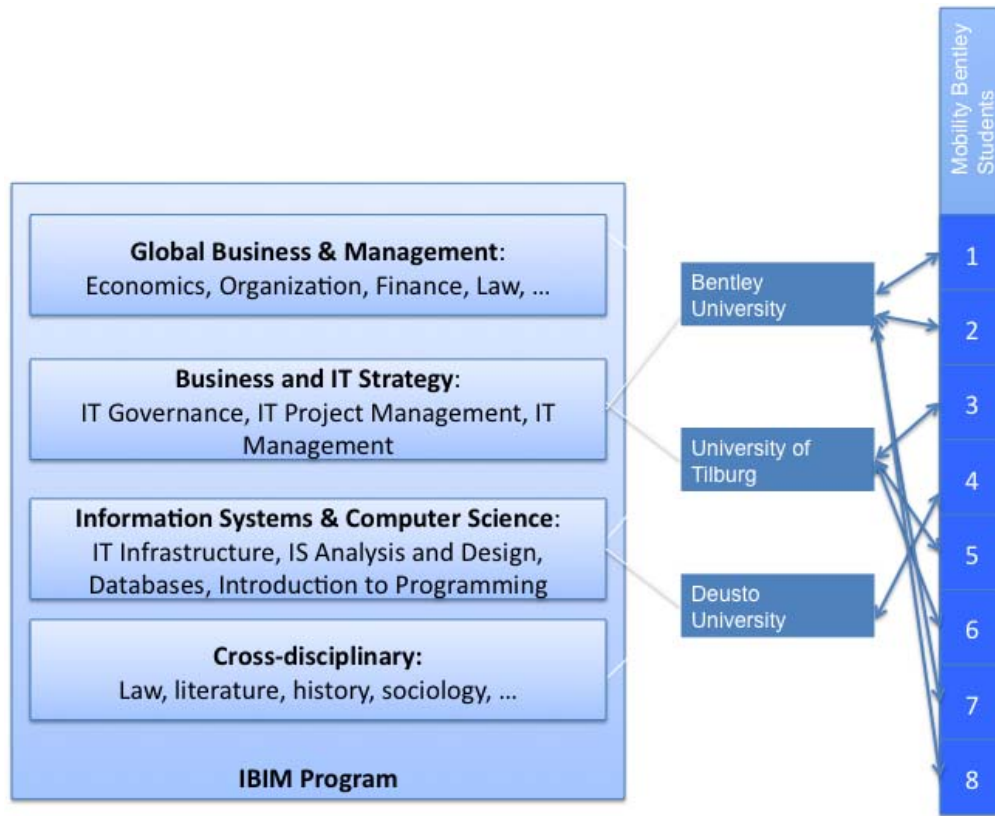
Atlantis: IBIM

Bentley University in the USA, Tilburg University in the Netherlands, and Deusto University in Spain acquired funding from the Atlantis Programme in 2007 to establish an international dual degree initiative. This dual degree offering, the International Bachelor's in Information Management (IBIM), is a four year undergraduate program requiring students to study at all three institutions while acquiring Bachelor's of Science degrees in Management and Information Systems from two, Bentley and Tilburg. This timely, integrated program of study in international management of information technology utilizes the unique strengths and strategic interests of all three cooperating institutions [5].

The IBIM exemplifies the only international dual degree program in the US or EU that effectively prepares students to become future "hybrid" managers at the interface between information systems and

management in an increasingly international business context. In particular, IBIM graduates will be prepared to help organizations internationalize and manage IT to support transnational operations. In today's global business environment, effective

management of transnational operations is imperative. These new hybrid managers will need to master global operations and associated technology solutions. The IBIM



initiative prepares candidates to understand issues and find solutions to effectively design, deploy and manage transnational operations. Students' extensive global cultural and social experience will reap additional professional benefits, enhancing their interpersonal and management skills in any international setting. Graduates might become project managers of international IT projects, IS/IT managers in multi-nationals, managers of off-shored IS/IT projects, or transition into a variety of other global positions.

To develop hybrid managers in international business and IT, students require a broad set of knowledge and expertise. The IBIM consortium brings together a unique aggregation of competencies that effectively achieve this goal, and each institution capitalizes on its strengths: Bentley University on the intersection of Business, IT and Global Management; Tilburg University on Business-IT Strategy and International Business/Economics; and Deusto University on Computer Science, Business Studies, and International Business Law. This collaboration leads to an

integrative program, which leverages the strengths of each university (see Figure 2 above).

Although three institutions are involved in the IBIM program, only Bentley and Tilburg grant degrees and, likewise, only students from these two schools participate. The IBIM study trajectory includes two years at a student's home institution (the equivalent of 120 ECTs), 1.5 years at the second degree granting institution (90 ECTs) and a semester (30 ECTs) at the second European institution (Deusto University).

Figure 2 also illustrates the four-year mobility path for a Bentley IBIM student. Tilburg students follow a mobility schedule that corresponds to that of the Bentley students; thus, the European students spend their first two and last two terms at Tilburg, studying with the Bentley students at Deusto in Term 4 and at Bentley for terms 3, 5 and 6. Our experience taught us that the "sandwich model" seems to be the most efficient mobility paradigm for the students and for administrators and faculty who support the program.

Lessons Learnt and Road Ahead

Dual degree programmes in IS and MIS are new and innovative, offering higher levels of global education. Such programs as illustrated by the IBIM, present significant challenges, yet produce enormous personal, academic and professional rewards for institutions, students and future employers.

Certainly, setting up and managing such international programmes opens up several previously unexplored educational avenues. Notably, existing standard reference curricula for IS programs. However, a key impediment of such model curricula is that they fail to take into account a global perspective on T-Shaped programs, combining deep knowledge on MIS with broad knowledge on social, political, economic, business and legal subjects from different continental perspectives.

This makes the definition, management and accreditation of any new program a daunting task. Other blind spots on the map of such programs include their marketing and recruitment, and, administrative issues (e.g., sharing study results and mapping diverse grading systems).

Despite the above impediments, there exists a steadily and relentlessly growing pressure on vocational and university education to continue exploring new international programs in IS/CS and MIS, steering the course toward new and sustainable dual-degree programs that are truly international. The driving factor behind this is the demand for graduates with global IS/MIS knowledge and skills, fuelled by new and timely initiatives such from governments – including those of the EU, USA and Chinese.

a. Faculty and Students Assessment

The positive impact of the IBIM program on faculty educational attitudes and practices has been significant and has exceeded expectations. While the program met with initial resistance from some, it has been rewarding to observe staff and faculty attitudes at all institutions evolve: some staff who initially opposed our program evolved to actively recruit and support students. Attitude changes have been based largely on the feedback from students at all schools and the development of personal relationships among faculty and staff at partner schools. They have heard from and read about students' personal and academic experiences and successes. Bentley staff and faculty personally witnessed Deusto faculty describing the experience of teaching Bentley students. Here is a small section of one professor's comments:

"I have taught literature in the Faculty here at Deusto since 1983 but I can truly say that the combination this year of IBIM and Deusto students in the same classes has given rise to one of the most exciting and culturally enriching environments I have ever

experienced. The outcome of bringing together groups of students from Holland, the U.S. and the Basque Country has been extraordinary. Our classes have been literally transformed both in a social and academic sense, and Deusto students have responded to that transformation with great joy. As a teacher, I have also enjoyed finding ways to meet the challenge posed by such a situation.

Our class seminars have provided transnational spaces in which a rich interchange of ideas and worlds has been made possible. A fundamental requirement for the teaching of literature, history and culture is precisely to be found in this interchange. Each group of students brought different strengths to the classes. The IBIM students have been able to enjoy the sense of warmth, spontaneity and the kind of social intelligence innate to Deusto students. In return, Deusto students have been able to perceive the academic grace, habits of mind and sense of commitment in our visiting IBIM students. Because the students come from such different backgrounds and disciplines, they have been able to bring to class different approaches to problem solving and issues. They have learnt to value and tolerate differences in each other, to reassess former attitudes concerning stereotypes and prejudices, and above all, to see the best and sometimes the worst of differing worlds..."

More than thirty Bentley and Tilburg university students' graduated from this dual degree program. All of them were offered very good jobs and they were happy with their offers. Some of them chose to continue their education beyond undergraduate degree. Overall students found curriculum to be very challenging. However, they were extremely happy with the program outcome in terms of uniqueness of the curriculum, cross-cultural experiences, and personal and professional advancement. Below is the response from one of the 2013 graduating student to a goodbye email.

"Thank you for your email! And thank you so much for the amazing 2 years that I have had. These were definitely the best two years of my life (so far) and if I could I would stay another two years in a heartbeat. Thank you for your contribution to this great program and for giving me the opportunity to be part of it. I wish it would never end."

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Dr. Nader Asgary is currently a Professor of Management and Economics at Bentley University. He was named Associate Provost for International Relations and Director of the Cronin International Center (CIC) in 2006. As Associate Provost, he managed all things "international" at Bentley,

and led many initiatives to enhance the globalization agenda of the University. Dr. Asgary has published in numerous national and international journals, such as *Economic Inquiry*, *Journal of Business Ethics*, and *Journal of Higher Education Policy and Management* and has participated in many international and national conference presentations and has been a guest speaker. He has taught courses in International Business, International Management, Economics, and Finance at the undergraduate and graduate levels and has been the recipient of many educator awards.

Prof. dr. Willem-Jan van den Heuvel is a full professor in the Department of Information Management at Tilburg School of Economics and Management and managing director of the European Research Institute of Services Science (ERISS). His research interests are at the cross-junction of software service systems and business process management with an emphasis on (global) networked enterprises. In particular, his expertise revolves around the following three major research themes: business process management, service engineering (including service governance) and legacy system modernization.