

Association for Information Systems AIS Electronic Library (AISeL)

AMCIS 2000 Proceedings

Americas Conference on Information Systems
(AMCIS)

2000

Teaching Enterprise Resource Planning (Workshop)

Michael Rosemann

Queensland University of Technology, m.rosemann@qut.edu.au

Follow this and additional works at: <http://aisel.aisnet.org/amcis2000>

Recommended Citation

Rosemann, Michael, "Teaching Enterprise Resource Planning (Workshop)" (2000). *AMCIS 2000 Proceedings*. 337.
<http://aisel.aisnet.org/amcis2000/337>

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2000 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Teaching Enterprise Resource Planning (Workshop)

Michael Rosemann, Queensland University of Technology,
Information System Management Research Centre, Brisbane, Australia, m.rosemann@qut.edu.au

Abstract

The introduction of Enterprise Resource Planning (ERP) into the curriculum at Business and IS Faculties and Schools is for many universities currently a major challenge. However, this problem is in various aspects of special nature: the students' demand is enormous and in many cases product-focused, ERP systems are typically very comprehensive and complex, knowledge about ERP is often missing, textbooks of satisfying quality are not available yet, and the frequency of systems' upgrades and the innovation cycles are impressive. This workshop provides lecturers new in this area with practical guidelines for the design and the continuous management of an ERP-related curriculum. Experienced academics will get an overview about the worldwide activities and recommendations for further extensions of their activities in form of international collaborative projects and the use of Application Hosting Centers.

Introduction

Enterprise Resource Planning (a.k.a. Enterprise(-wide) Systems) can be defined as customizable integrated application software that supports the core business processes and the main administrative areas of enterprises of different industries. Extended ERP also covers the management of inter-enterprise business processes like Customer Relationship Management and Supply Chain Management as well as analytical applications (Data Warehousing, Performance Measurement).

The GartnerGroup (GartnerGroup 1999) forecasts that the ERP market will be greater than \$ 20 billion by 2002 (with a probability of 80 %). More than 50 % of this will be ERP service revenue, while the total ERP license revenue covers approx. \$ 9 billion. They estimate that more than 90 percent of Fortune 500 enterprises have purchased a module or a set of modules from an ERP vendor. 50 percent have made a commitment to one vendor, while only less than 20 percent went actually live. They also estimate that the SME market is the main customer group as more than 50 % of these enterprises still haven't selected a next-generation ERP. For 2000 (2001, 2002) the GartnerGroup anticipates a market growth of 22 % (25 %, 28 %).

Universities reacted to the growing importance of ERP with a time-lag in both of their business processes: teaching and research (Gable 1998). However, the number of institutions of higher learning dealing meanwhile with ERP within their curriculum increased significantly over the last five years. Often the institutions designed complete new subjects and the

lecturers in charge spent four to six full-time weeks in courses offered by the ERP providers in order to understand (from a product-specific point-of-view) ERP. Just taking the (by far) market leading ERP solution mySAP.com (SAP R/3), it has to be realized that currently more than 350 universities worldwide have installed this product.

The IS discipline takes this development into account and is spending more attention to the need to exchange efficiently knowledge in this area. An indicator for this is the number of panel discussions at the major IS conferences dealing with ERP in general and teaching ERP in particular (e.g. ACIS 1998: Gable 1998, ICIS 1998: van der Heijder 1998, ECIS 1999: Rosemann 1999, ECIS 2000: Gable 2000). Many IS conferences have an own ERP-track. The first international ERP workshop took place in November 1999 in Venice, Italy (Eder, Maiden, Missikoff 1999).

The major ERP providers (SAP, Oracle, PeopleSoft, J.D. Edwards, Baan) have institutionalized an own organization that deals with universities as a customer group with special requirements. In these departments, University Alliance Managers act as regional key-account managers. In order to reduce the complexity in handling the fast growing number of universities, most ERP providers currently establish Application Hosting Centers at selected universities, which handle the system administration for a group of 15-30 universities. The worldwide user conferences of the major ERP providers often include a session dealing with teaching ERP at universities. SAP's conference SAPPHERE '99 in Singapore (November 1999) had for the first time an ERP session that was organized like a rigorous scientific conference with an open Call for Papers distributed via ISWorld, a double-blinded review process and published proceedings (Gable, Hawking, Sinott 1999).

Teaching Enterprise Resource Planning is a problem of special nature. Distracted by incredible job offers the students' demand is enormous and in many cases product-centered. ERP systems are typically very comprehensive and complex. The frequency of upgrades and innovation from one release to the other is mostly dramatic. Knowledge about ERP is often missing and textbooks of satisfying quality are not available. Major IS journals reacted with special issues about ERP, which all will be published in 2000 for the first time.

This proposed workshop provides the participants with knowledge that was consolidated over the past six years,

but also offers a forum for the exchange of expertise between the participants.

Outline of the Workshop

The workshop follows an extended understanding of ERP, which includes the inter-company business processes related to Supply Chain Management and Customer Relationship Management. Though this workshop tries to be generic, the examples quoted will reference in the most cases mySAP.com (SAP R/3), which is the by far market leading ERP solution concerning the number of installations at universities (and enterprises).

The workshop will have the following outline. During the *introduction* every participant will have the opportunity to introduce herself/himself and express the individual background and interests. In a brief overview, the *basics of Enterprise Resource Planning* will be explained. This slot will provide all participants with the same understanding of (extended) ERP. In 1999, the presenter conducted together with Prof. Guy G Gable, QUT, a *world-wide survey* related to the teaching and research activities of universities. 77 universities returned the 8-16 pages questionnaire and provided in total information about 158 ERP-related subjects. An overview about the results of this survey will give the participants information about differences between countries, typical ERP-related subjects, moduls taught, problems, success factors, etc.

The huge interest of students in ERP-related subjects is contrasted by the fact that ERP software is extremely comprehensive and complex. This kind of software covers the main business areas like procurement, material management, production planning and control, sales, accountancy, and human resource management. From an IT perspective, current available technologies like data warehousing, workflow management, Internet-user interfaces, and client-server-architecture are used. The different *complexity drivers* will be discussed and approaches for how to manage this complexity will be suggested. Different *theoretical learning models* will be discussed regarding their appropriateness for teaching ERP (Scott 1999).

The results from the survey (Gable, Rosemann 1999) indicate that hands-on experiences are the main success factor for teaching ERP. Thus, every lecturer in this area has to be aware of the *current support* provided by the ERP vendors. This includes available courses, teaching and product material and further support that can be expected. In particular, knowledge about the concept of *Application Hosting Centers* (AHC) at universities is indispensable as this allows to teach and research in the area of ERP without dealing with the administration of the system. The information provided in this slot will be of interest for the future customers of these AHC as well as for universities, who will be an AHC.

A main part of the proposed workshop will be the presentation of *selected ERP initiatives from various institutions*. The presented subjects and entire ERP curriculums are selected from universities from different continents and in a different stage of experience. It will start with examples, in which the ERP-initiative just started and end with examples from universities that teach internationally and collaboratively ERP in a distance education modus and with the (virtual) involvement of experts from all over the world. This block will finish with a general list of *possible ERP subjects*, clustered into the areas Business Administration, Information Systems, and Computer Science.

The workshop ends with *practical recommendations* that summarize the content of this event. These recommendations include besides issues directly related to the design and the establishment of an ERP curriculum also information about *how to promote the ERP initiative* (e.g. in the form of awareness seminars).

Expected Audience and Duration

The targeted audience are lecturers, who are currently teaching Enterprise Resource Planning or who will (have to) teach ERP in the near future. The workshop addresses the interests of novices as well as those of rather experienced lecturers in the ERP area. As the event discusses how to teach ERP in order to teach Business, ERP-issues or Information Systems, it is of interest for academics from Faculties or Schools of Business as well as from the Information Systems discipline. The proposed duration for this workshop is 4 hours (2 x 90 minutes).

The Presenter

Michael Rosemann is teaching SAP R/3 at universities since 1994. He had first hands-on experiences with SAP R/2 at the University of Münster, from where he received his Masters in Business Administration in 1992 and his Ph D in Information Systems in 1995. In 1994 he consulted a German retail company during the implementation of SAP R/3 FI, CO, AM and HR. From 1992-1999 he worked for the Department of Information Systems at the University of Münster. This department is now the second mySAP.com Application Hosting Center (AHC) in Germany. Since August 1999 he is working as a Senior Lecturer for the School of Information Systems at the Queensland University of Technology, one of the first mySAP.com Application Hosting Centers outside Europe. Michael Rosemann is as a member of QUT's AHC team responsible for all international contacts.

Besides teaching-related publications, he published various articles in books and journals about ERP and SAP R/3 in the areas of reference modelling,

implementation, performance measurement, and knowledge management.

Michael Rosemann presented his approach of teaching SAP R/3 and mySAP.com as an invited speaker at the SAP user conference SAPPHIRE in Melbourne, Australia (November 1998), Nice, France (May 1999), Singapore (November 1999) and Las Vegas (June 2000). He was an invited speaker at the first Scandinavian workshop about teaching SAP R/3, organized by SAP Sweden at the University of Lund (August 1999). As an Adjunct Professor he is conducting lectures in the MBA course "Enterprise Systems" at the Business School of the Nanyang University, Singapore. He organized ERP-related mini-tracks at the AMCIS 1999 (Milwaukee, August 1999) and the AMCIS 2000. He moderated an ERP-related panel discussion at the European Conference on Information Systems (ECIS 99) in Copenhagen, Denmark, and was a participant at the ERP-panel at the Australasian Conference on Information Systems (ACIS) in 1998 (Sydney, Australia). As a member of the program committee he was involved in the first international ERP workshop in Venice, Italy (November 1999). Michael Rosemann gives commercial seminars about Customer Relationship Management and Process Management in Australia organised by SAP Australia.

Related Publications from the Presenter

"Collaborative ERP Education: Experiences from a First Pilot." *Proceedings of the 6th Americas Conference on Information Systems (AMCIS 2000)*. H. M. Chung (ed.). Long Beach, 10 - 13 August 2000 (with J. Scott, E. Watson).

"Structuring and Modeling Knowledge in the Context of Enterprise Resource Planning." *Proceedings of the 4th Pacific Asia Conference on Information Systems - PACIS 2000*. Hong Kong, 2-3 June 2000 (with Roy Chan).

"Measuring the Performance of ERP Software - a Balanced Scorecard Approach," *Proceedings of the 10th Australasian Conference on Information Systems (ACIS '99)*. B. Hope and P. Yoong (eds.). Wellington, 1-3 December 1999 (with J. Wiese), pp. 773-784.

"Workflow-based ERP: A New Approach for Efficient Order Processing," *Proceedings of the First International Workshop Enterprise Management and Resource Planning Systems: Methods, Tools and Architectures*. J. Eder, N. Maiden, and M. Missikoff (eds.). Venice, Italy, 25-26 November 1999 (with D. Frink, C. von Uthmann, M. Friedrich), pp. 239-247.

"ERP-Software in Teaching and Research. An International Survey," *Proceedings of the 3rd Institute of Higher Learning Forum "Maximizing the Synergy Between Teaching, Research & Business."* G. G Gable, P. Hawking, and T. Sinnott (eds.). SAPPHIRE '99. Singapore, 2 November 1999 (with G Gable).

"Developing Industry Strength University Education in Enterprise Resource Management through International Collaborative Efforts," *Proceedings of the 3rd Institute of Higher Learning Forum "Maximizing the Synergy Between Teaching, Research & Business."* G. G Gable, P. Hawking, and T. Sinnott (eds.). SAPPHIRE '99. Singapore, 2 November 1999 (with G. Stewart).

"Lessons from the Field: A Reflection on Teaching SAP R/3 and ERP Implementation Issues," *Proceedings of the 5th Americas Conference on Information Systems (AMCIS '99)*. W. D. Haseman and D. L. Nazareth (eds.). Milwaukee, Wis., 13 - 15 August 1999 (with G. Stewart, G. G Gable, R. Andrews, T. Chan).

"An Overview of Teaching and Research Using SAP R/3," *Proceedings of the 5th Americas Conference on Information Systems (AMCIS '99)*. *Proceedings of the 5th Americas Conference on Information Systems (AMCIS '99)*. W. D. Haseman and D. L. Nazareth (eds.). Milwaukee, Wis., 13 -15 August 1999 (with E. Watson, G. Stewart).

"ERP-Software - Characteristics and Consequences," *Proceedings of the 7th European Conference on Information Systems (ECIS '99)*. Vol. III. J. Pries-Heje et al. (eds.) Copenhagen, Denmark, 23-25 June 1999, pp. 1038-1043.

References

J. Eder, N. Maiden, and M. Missikoff (eds.) *Proceedings of the First International Workshop Enterprise Management and Resource Planning Systems: Methods, Tools and Architectures*. Venice, Italy, 25-26 November 1999.

Gable, GG (1998) "Large Packaged Software: a Neglected Technology?" *Journal of Global Information Management*, 6:3, summer, pp. 3-4.

Gable, GG (2000) "University Collaboration and ERP Competence Centres – A Golden Era or Golden Handcuffs?" (Panel), *Proceedings of the 8th European Conference on Information Systems*. Ed.: R. Hansen. Vienna, 3-5th July 2000.

Gable, GG, Hawking, P., Sinnott, T. (1999) "Maximizing the Synergy Between Teaching, Research and Business". 3rd Annual SAP Asia Pacific Institutes of Higher Learning Forum. Singapore, 1-2 November 1999. Proceedings.

GartnerGroup (1999): "Enterprise Resource Planning Vendors: The Going Gets Tough." *Proceedings of the GartnerGroup Symposium/Itxpo 99*. 19-22 October 1999, Brisbane, Australia.

Hawking, P., Shackleton, P., Ramp, A. "IS'97 Model Curriculum and Enterprise Resource Planning Systems." *Proceedings of the 3rd Annual SAP Asia Pacific Institute of Higher Learning Forum: Maximizing the Synergy between Teaching, Research and Business*, 1-2 November 1999, Singapore.

van der Heijder, H. (1998) "Acquiring and Implementing ERP: The View from Business and Academia." (Panel). *Proceedings of the 19th International Conference on Information Systems (ICIS)*. Helsinki, 13-16 December.

Lederer-Antonucci, Y. "Enabling the Business School Curriculum with ERP Software: Experiences of the SAP University Alliance," *Proceedings of the IBSCA '99*, Atlanta, 1999.

Philippakis, A. and Hardaway, D. (1999) "ERP in the MIS Curriculum: A Tri-Perspective." *Proceedings of the 1999 Americas Conference on Information Systems (AMCIS)*. Milwaukee, 13-15 August.

Scott, J. (1999), "ERP Effectiveness in the Classroom: Assessing Congruence with Theoretical Learning Models." *Proceedings of the 5th Americas Conference on Information Systems (AMCIS '99)*. W. D. Haseman and D. L. Nazareth (eds.). Milwaukee, Wis., 13 -15 August 1999.

Watson, E. and Schneider, H., "Using ERP Systems in Education", *Communications of the Association for Information Systems* 1.