Case Studies on Information Technology in Higher Education: Implications for Policy and Practice

Lisa Ann Petrides, ed.
Idea Group Publishing, 2000,
$69.95 (paper)
257 pages
ISBN 1-878289-74-8

Reviewed by Paul Morris

This book contains 20 contributed papers, intended to address issues surrounding the integration of IT into higher education and to provide illustrative examples of how those issues have played out in a variety of cases. The selection of papers, and the overall approach, targets a broad audience of people dealing with the integration of IT into higher education, including administrators, policy makers, and IT professionals in universities. The book would also be useful as text material for courses in educational administration.

An introduction sets the stage, presenting (very briefly) a framework for thinking about the issues in the book. This framework suggests that the transformation of the education process is the result of four interactive components. Information technology is seen as flowing from a changing environment through three layers within the institution: planning and management processes, impact on people and culture, and finally teaching and learning. (Note that the book focuses strictly on teaching and learning, and doesn't deal with the support of research.)

The papers (15 based on case histories and 5 primarily conceptual) are grouped into four sections corresponding to these four components, although naturally any one case may raise issues in more than one of these components. The range of topics is broad and encompasses many important issues including, among others, strategic planning, distance education, information management, faculty culture and reward systems, software tools, and the changing student body. Each paper has a set of questions at its beginning, which highlight the issues to come, and each ends with more questions, for use by a discussion group studying the material.

More of the material deals with policy and people than with specific technologies, and this is appropriate. We have learnt from experience that attempts to bring about transformations based on new technology usually end in failure if they focus on technology as the driving force. Rather, successful projects take account of the organization and culture that will be affected by the new technology, and pay close attention to change management. Many of the papers here deal with this, providing both relevant concepts and illustrative examples of success and failure.

Another reason to focus on broader issues than specific technologies is that current technology changes so fast. Judging by the dates on the literature citations, these papers were written by late 1999. (The publication date is 2000.) In the two years since then, much has changed in terms of specific functionality of hardware and software. Much less has changed in terms of institutional culture and human reaction to change. So, for example, the case describing the process used for the selection and implementation of a Web course tool is still relevant, even though the functional comparison of the then-current tools will have become dated.

Maintaining the currency of material in a print work is certainly a concern given the rate of change in the world of IT. Some of the cases in this volume include a list of additional resources along with the print references, usually URLs for their on-going projects or for relevant literature sources. These give readers a starting point from which to search for updated material on the particular project described in a case or on new developments in the general area.

As well as describing successful examples of the integration of IT into teaching and learning, the papers based on case experiences also report parts that did not go well and projects that failed. These lessons learned are often very illuminating and can help readers spot pitfalls to avoid in their own projects.

Taken as a whole, these papers bring together in a single place much helpful material. The book would be of great value to a teacher developing a course on IT management in higher education and to the students in such a course. For those readers who are practitioners rather than students, the book may be more useful as a reference than as something to be read straight through. There is a very broad scope of topics covered, many of which may not be relevant to the problems the reader is trying to address at any given time. This is the sort of material that would be very valuable when placed in an electronic repository such as the EDUCAUSE library, with keywords attached. Practitioners could then pick papers covering the topics they want, when they want them. The economics of print publishing make that unattractive to the publisher, and there is still more academic credit for the writers in a print citation. However, it would be a desirable model in terms of usefulness to the reader. *e*

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Creating High Performance Software Development Teams

Frank P. Ginac
Prentice Hall PTR, 2000, $26.50 (paper)
123 pages
ISBN 0-13-185083-7

Reviewed by Kevin Shalla

This is a very direct, practical, short book primarily aimed at new software development managers, although even seasoned managers will benefit from the nice way the key concepts are summarized. The author focuses on the people, teams, and leadership of the project, not the technology. Furthermore, Ginac stresses the busi-

Executive Reading List

The recommended reading list offered here focuses on the top-ten IT-related issues identified by the 2001 EDUCAUSE Current Issues Survey. A summary of the survey and its results appeared in *EDUCAUSE Quarterly*, 24 (2), 2001, 4–19. The complete survey and analysis are available on the Web at <http://www.educause.edu/issues/issues.thml>, as are two versions of this reading list: the primary list reproduced here, and a longer list, which includes supplementary readings.

Administrative Systems/ERP (maintaining legacy systems; build versus buy; managing enterprise systems/ERP implementations; systems integration)

McCredie, J. and Updegrove, D., "Enterprise System Implementations: Lessons from the Trenches," *CAUSE/EFFECT,* (4), 1999, 9–16; <http://www.educause.edu/ir/library/html/cem9943.html>.

IT Funding Strategies (student technology fees; costing models; sustainable funding models; total cost of ownership; fee-based data networking)

Kaludis, G. and Stine, G., "From Managing Expenditures to Managing Costs: Strategic Management for Information Technology," in *Dollars, Distance, and Online Education: The New Economics of College Teaching and Learning*, M. J. Finkelstein, C. Frances, F. I. Jewett, and B. W. Scholz, eds. (Phoenix, Arizona: ACE and Oryx Press, 2000), 256–68. Excerpted in *EDUCAUSE Review*, May/June 2001, online at <http://www.educause.edu/ir/library/pdf/ERM013B.pdf>.

Faculty Development, Support, and Training

Hagner, P. R., "Faculty Engagement and Support in the New Learning Environment," *EDUCAUSE Review*, September/October 2000, 27–37; <http://www.educause.edu/pub/er/erm00/pp052055.pdf>.

IT Staffing and HR Management (recruiting, retaining, retraining; job classifications; compensation)

Recruiting and Retaining Information Technology Staff in Higher Education, EDUCAUSE Executive Briefing, August 2000; <http://www.educause.edu/pub/eb/eb1.html>.

Distance Education (instructional delivery systems; academic and administrative challenges of planning for distance education; virtual universities and consortia)

Oblinger, D. G., Barone, C. A., and Hawkins, B. L., "Distributed Education and Its Challenges: An Overview," Paper No. 1 of the series Distributed Education: Challenges, Choices, and a New Environment (Washington, D.C.: American Council on Education and EDUCAUSE, 2001); <http://http://www.educause.edu/asp/doclib/abstract.asp?id=eaf0113>.

Teaching and Learning Strategies (electronic learning environments; courseware development; instructional management systems; standards; relationship between educational theory and educational outcome)

Brown, J. S., "Growing Up Digital: How the Web Changes Work, Education, and the Way People Learn," *Change*, March/April 2000, 10–20; <http://www.aahe.org/change/digital.pdf>.

IT Strategic Planning

McCredie, J., "Planning for IT in Higher Education: It's Not an Oxymoron," *EDUCAUSE Quarterly*, 23 (4), 2000, 14–21; <http://www.educause.edu/ir/library/pdf/EQM0042.pdf>.

Online Student Services (enrollment management; customization; student portals; Web-based applications)

Kvavik, R., and Handberg, M., "Transforming Student Services," *EDUCAUSE Quarterly,* 23 (2), 2000, 31–37; <http://www.educause.edu/ir/library/pdf/eq/a002/eqm0022.pdf>.

Building and Maintaining Network and IT Infrastructure

Long, P., "Guiding Principles for Designing and Growing a Campus Network for the Future," *EDUCAUSE Quarterly*, 23 (1), 2000, 40–52; <http://www.educause.edu/ir/library/pdf/eq/a001/eqm0015.pdf>.

Electronic Classrooms/Technology Buildings

Bleed, R., "A Hybrid Campus for the New Millennium," *EDUCAUSE Review*, January/February 2001, 16–24; <http://www.educause.edu/ir/library/pdf/erm0110.pdf>.

ness aspect of software development throughout. As he explains, software development projects do not exist in a technological vacuum, but are part of a profit and loss statement. For them to be valuable to the company, they must meet or exceed all objectives defined for them. Following a six-step process, Ginac discusses what it takes to lead a successful project, including defining requirements, selecting the team, preparing the team, preparing yourself to lead, planning the project, and executing the plan.

In defining the requirements, Ginac includes many aspects new project managers wouldn't consider, such as the return on investment and the business case. He includes a detailed profile of the successful team member, useful during the recruiting phase. Further, he describes how to develop the team members selected in order to reduce the team's weaknesses by using the differences in skills among them to create synergy among team members.

In his planning chapter Ginac identifies why crafting a plan is useful, along with a practical list of what the plan should include. Further, he lets the reader know not to spend huge amounts of time preparing the plan and not to expect it to be perfect — it won't be. A plan should be fairly accurate and subject to change as the project progresses. Important, if obvious, is that the plan must be used during the project, not simply filed away. The team leader needs to make adjustments to the plan as the project progresses, and walk a fine line between paying attention and micromanaging.

Although many books already exist on project management, personal management, popular psychology, and so on, Ginac does a nice job of combining the essential aspects of these fields important to programmer/analysts recently promoted to management. This book is unique in its direct, businesslike, and concise approach, and will serve as a handy guide. *e*

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