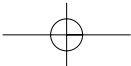
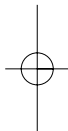
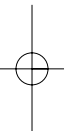
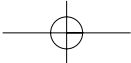


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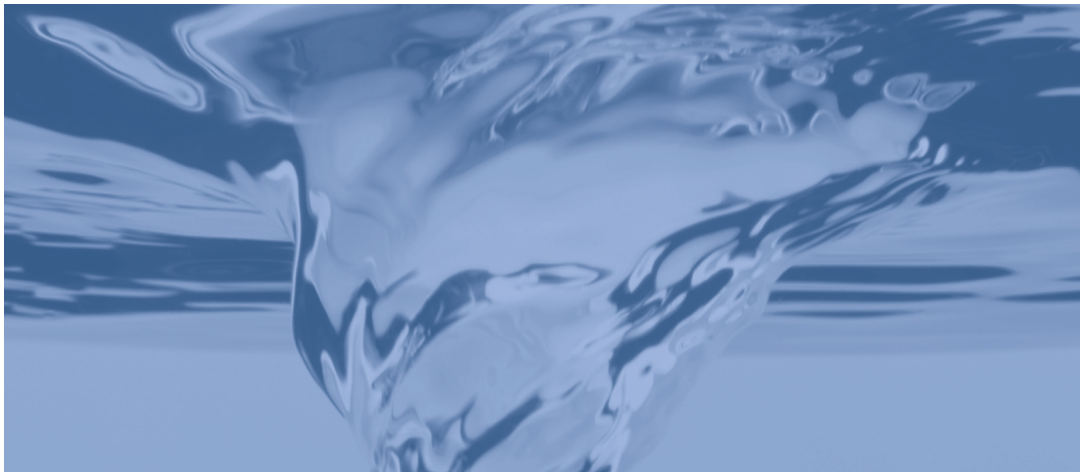


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Information Systems Development, 4th Edition
David Avison and Guy Fitzgerald
ISBN-13 978-0-07-711417-6
ISBN-10 0-07-7114175



Published by McGraw-Hill Education
Shoppenhangers Road
Maidenhead
Berkshire
SL6 2QL
Telephone: 44 (0) 1628 502 500
Fax: 44 (0) 1628 770 224
Website: www.mcgraw-hill.co.uk

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloguing in Publication Data

The Library of Congress data for this book has been applied for from the Library of Congress

Head of Development: Caroline Prodger
Senior Marketing Manager: Alice Duijser
Senior Production Editor: Beverley Shields

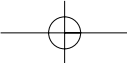
Text Design by Hard Lines
Cover design by Ego Creative
Printed and bound in Spain by Mateu Cromo

First Edition published in 1988
Second Edition published in 1995
Third Edition published in 2002

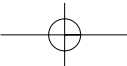
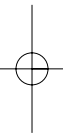
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ISBN-13 978-0-07-711417-6
ISBN-10 0-07-7114175

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Dedicated to
Leone, Marie-Anne and Thomas
and
Lin, Anna and Jane
With love



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Preface

Information systems development is at the core of the IS field and David Avison and Guy Fitzgerald's key text on the subject has been used by lecturers and students worldwide for over 18 years. Information systems development keeps evolving and changing and thus a fourth edition of Avison and Fitzgerald's classic text is now needed. Probably the biggest change in the last few years has been the increasing use of the rapid approaches to developing information systems, so much so that we now have a new theme, 'Rapid and evolutionary development' (Chapter 7). This encompasses a new section on agile development, as well as the revised sections on evolutionary development, prototyping, rapid application development and web-based development. This change is reflected also in revised sections on the methodologies Dynamic Systems Development Method (DSDM) and Extreme Programming (XP) in Chapter 23.

Other changes are related to issues that have been growing in importance, thus security issues, and data warehousing and data mining are two new sections that have been added in Chapter 8 to the Engineering theme. Similarly, the growing importance of the offshore outsourcing of systems development, sometimes referred to as offshoring, has led to the outsourcing section in Chapter 9 being expanded to reflect this important development. Some sections have expanded and this includes sections on component development, Oracle, PRINCE2 and SODA.

Changes for the new edition have been partly driven by existing readers and adopters and we are very grateful to them. Two (very different) topics in information systems development, that of professional aspects and requirements were identified as warranting specific sections rather than mere passing reference, and we have addressed this omission in Sections 1.11 and 5.6 respectively. Sections on component development (in Chapter 8) and open source (in Chapter 9) have also been greatly changed to reflect changes in practice.

In the last two chapters we compare methodologies and discuss issues concerned with their adoption in practice and problems associated with their adoption. At the end of Part V, we discuss the costs and benefits associated with the adoption of tools and toolsets. In previous editions we have not discussed the use of techniques in this way. They are typically seen as benign, very often as simple aids to help carry out a task and are used in many methodologies. But techniques may restrict understanding by framing the ways of thinking about the problem situation and some techniques may limit rather than enhance our understanding. We discuss this issue in a new chapter 17 and again in an expanded section on tools later in Chapter 18.

Of course we have also taken the opportunity to bring all sections up to date and to correct some errors kindly drawn to our attention by readers.

Despite all these changes, we have kept the basic structure of *themes, techniques, tools* and *methodologies*, but this structure does enable readers to use the book in a number of ways.

Because of its broad and effective content base together with its excellent structure, the text provides a sound basis for courses in information systems at all levels, from introductory through to specialist, and is relevant for courses with both an information technology and management perspective. It is of course particularly relevant for specialist courses in information systems development at both undergraduate and postgraduate level. It is both a theoretical and practical text with web-based support material available for both lecturers and students. The Online Learning Centre can be found at: <http://www.mcgraw-hill.co.uk/textbooks/avison-fitzgerald> – to learn more about what is available, look at page xviii detailing the technology to enhance teaching and learning.

Guided tour

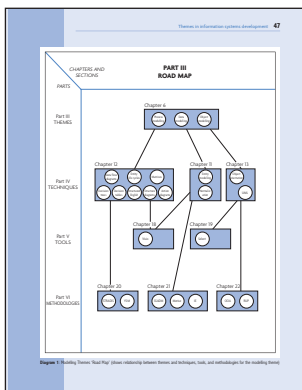


Figure 1: Building Teams, Road Map (showing relationship between themes and techniques, tools, and methodologies for the building teams)

Part introductions

Each part opens with an introduction to the key themes of each section of the book, looking at the topics to be covered and placing them within a roadmap which helps you to navigate through the book.

Key terms

New terms and key words are highlighted in bold throughout the chapter as a useful reference for learning new terminology.

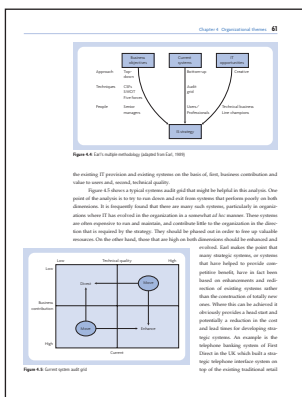
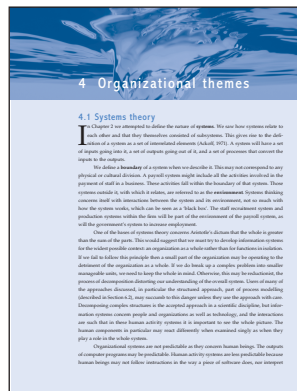


Figure 4.4: IT's impact on the organization (adapted from Gal, 1995)

The existing IT provision and existing systems on the basis of, firm, business contribution and value to create, secure, technical quality.

Figure 4.5 shows a typical system audit grid that might be helpful in this analysis. The purpose of the analysis is to try to see where and in what systems that potentially provide on both dimensions. It is frequently found that there are many such systems, particularly in organizations where IT has resulted in the organization as a whole of the system. These systems are often expensive to run and maintain, and contribute little to the organization in the dimension that is required by the strategy. This should be given as an indicator to the organization. On the other hand, those that are high on both dimensions should be enhanced and retained. This makes the point that many strategic systems or systems that have helped to provide competitive benefits, have in fact been based on maintenance and maintenance of existing systems rather than the construction of totally new ones. When they can be enhanced to already provisioned in fact and generally a reduction in the cost and total time for developing strategic systems. An example is the telephone banking system of First Direct in the UK, which had a strategic telephone banking system on top of the existing traditional system.

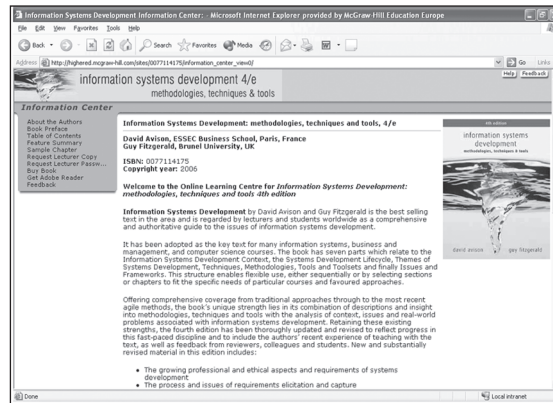
Figure 4.5: Current system audit grid

Figures

Each chapter provides numerous figures to help you to visualize the various development models discussed in the book, and to illustrate and summarize important Information Systems concepts.

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A range of supporting teaching resources is available to accompany this textbook and to aid lecturers in delivering their Information Systems Development modules.

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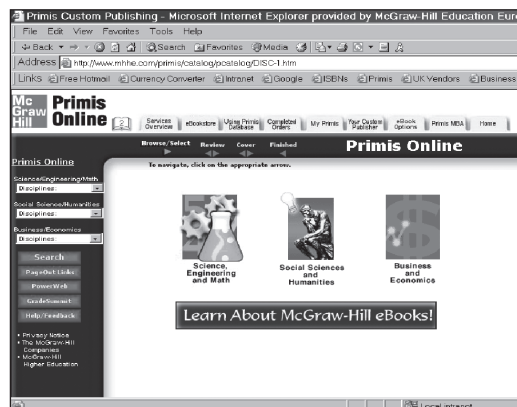
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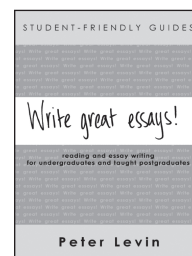
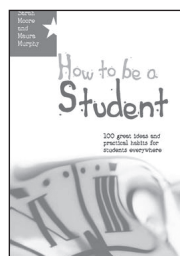
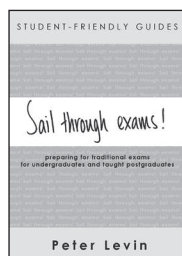
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xx Acknowledgements

Acknowledgements

Our thanks go to the following reviewers who commented on the third edition and on our new material for the fourth edition:

Antony Bryant, Leeds Metropolitan University

Stephen Burbidge, University of Middlesex

Umberto Fiaccadori, Lund University, Sweden

Debra Howcroft, Manchester Business School

Sherry Jeary, Bournemouth University

Bruce Knowles, University of Abertay, Dundee

Russell Pearson, University of Middlesex

Christine Urquhart, University of Wales, Aberystwyth

Robert Vieira, University of East Anglia

Julie Williamson, Coventry University

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