



**EXPERIENCING**

# MIS

**THIRD CANADIAN EDITION**

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**PEARSON**

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*To C.J., Carter, and Charlotte. DK*

*This book is dedicated to my wife Kathy, my children Christina and Matthew, and all of the students, teachers, reviewers, and colleagues who helped us make a better book. AG*

*This book is dedicated to those who continue to teach me great things. My partner, Susanne, our children, my parents, colleagues, and, of course, my students, who never fail to astound and inspire me. PT*

# About the Authors



## David Kroenke

David Kroenke has many years of teaching experience at Colorado State University, Seattle University, and the University of Washington. He has led dozens of seminars to college professors on the teaching of information systems and technology; in 1991, the International Association of Information Systems named him Computer Educator of the Year.

David worked for the U.S. Air Force and Boeing Computer Services. He was a principal in the startup of three companies. He also was vice-president of product marketing and development for the Microrim Corporation and was chief of technologies for the database division of Wall Data, Inc. He is the father of the semantic object data model. David's consulting clients have included IBM, Microsoft, and Computer Sciences Corporations, as well as numerous smaller companies. Recently, David has focused on using information systems for teaching collaboration.

His text *Database Processing* was first published in 1977 and will be released in its eleventh edition in the summer of 2009. He has published many other textbooks including *Database Concepts*, Fourth Edition (2010) and *Using MIS*, Second Edition (2009). David lives in Seattle. He is married and has two children and three grandchildren.



## Andrew Gemino

Andrew Gemino ([www.andrewgemino.com](http://www.andrewgemino.com)) has taught at Simon Fraser University (SFU) for over a decade. He is an accomplished teacher who received the SFU Teaching Excellence Award, the TD Canada Trust Distinguished Teaching Award with the Beedie School of Business, and the MBA Teaching Excellence Award at the University of British Columbia.

Andrew is a past President of the Special Interest Group for Systems Analysis and Design in the Association of Information Systems. He teaches and consults in IT project management for a variety of clients ([www.PMPerspectives.org](http://www.PMPerspectives.org)) and founded a software company that specialized in professional sports scouting and scheduling/payroll systems for sports and entertainment companies.

Andrew is a researcher, whose work is funded through grants from the National Sciences and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council (SSHRC). His work has been published in *Communications of the ACM*, *Journal of MIS*, *European Journal of IS*, *Data and Knowledge Engineering*, *Requirements Engineering*, and *Data Mining and Knowledge Discovery*. Andrew lives in Coquitlam, BC, with his wife and two children.

## Peter Tingling

Peter Tingling has worked in information-intensive industries for more than 30 years. He has held senior line and staff positions at a variety of top-tier firms, and has provided consultations to government, startup, and Fortune 500 companies across North America.

Peter's research interest is in decision process and analysis and his work has involved organizations that run the range from banks to professional sports organizations. Peter's research has been published in academic and practitioner journals and has often been referenced in the public media.

Joining academia because he was interested in "why," Peter considers himself an eclectic reader, although he prefers biographies. His favourite authors are Feynman, Halberstam, Lewis, and Ferguson. Peter is the founder and Chief Executive Officer of Octothorpe Software Corporation and now lives in Vancouver with his wife and four children.



# Letter to Students

Dear Student:

You have chosen to begin a career as a business professional by majoring in a business discipline. If your experience is anything like that of the authors of this Canadian edition, you will not regret your choice. Working in business leads to fulfilling, enjoyable experiences and relationships with interesting, quality people.

The overall purpose of this book is to help you prepare for success in your business career, and in today's business environment success will most likely come through your ability to innovate. Canadian businesses face increasing pressure to improve the effectiveness and efficiency with which products and services are delivered to global customers. This innovation will require a workforce with new skills and an improved understanding of the role of information systems in business. In writing the book, we kept in mind three goals:

1. To explain how you can use information systems to solve problems and make better decisions in business
2. To show you how to increase your utility (and marketability) in business by applying knowledge of information systems
3. To describe, in the context of management information systems (MIS), how you can become a better business professional

Note that the emphasis is on you. It is up to you to prepare yourself. No particular book, no course, no professor, no TA can do it for you. However, many people have worked hard to structure this book, so you can maximize the benefit from your study time.

To help you achieve your goals, we have included new sections on Web 2.0 and Social Media, and updated sections throughout the book focusing on emerging topics, such as Business Technology Management, Smartphones, Business Process Measurement, Innovation, Social Cloud Computing, and the Project Management Body of Knowledge (PMBOK).

We have also updated the opening cases for each chapter providing four rich running cases that run through each group of three chapters. In addition, at the end of every third chapter, there are questions to promote analysis of the running case and collaborative questions that can be used to solidify your understanding of the cases and the material presented in each chapter.

This book also now includes five Application Extensions, one for database design and one each on MS Excel, MS Access, MS Visio, and MS Project. We feel these application extensions provide some basic skills for a new set of personal productivity software that will be important for future business professionals. The introduction each of these application extensions provides is intended to make you aware of the capabilities of each application and enable you to explore the further power these applications offer.

In addition to content changes, the book contains five unique features that provide interesting opportunities for learning. First, we have organized the material in every chapter around a set of questions. Use these questions to manage your study time. Read until you can answer the questions.

Second, Collaborative Exercises have been included at the end of every chapter. These new assignments are designed to be accomplished in groups and are meant to help to build your teamwork skills and provide a larger opportunity for developing your interpersonal communication skills. The abilities to communicate and work in a team are critical skills for business professionals.

Third, short MIS in Use cases are included in each chapter, and we have added a number of new cases to this edition. These cases provide real life examples of how organizations deal with information systems issues. You can also find a second case near the end of each chapter for additional insight.

Fourth, we have included profiles of young and successful business students who have gone onto a professional career in information systems. These profiles demonstrate how important knowledge of information systems can be in developing your own career.

Finally, the two-page What Do YOU Think? feature found at the end of each chapter provides stimulating ideas for class discussion and individual thinking. The exercises often include ethical issues and ask you to develop opinions about important issues in information systems. If possible, discuss the questions in these guides with other people. Such discussions will give you a chance to develop your own opinions about important topics in information systems.

Like all worthwhile endeavours, this course takes work. That is just the way it is. No one succeeds in business without sustained focus, attention, desire, effort, and hard work. It will not always be easy, and it will not always be fun. On the other hand, you will learn concepts, skills, and behaviours that will serve you well throughout your business career.

We wish you, as an emerging business professional, the very best success!

Sincerely,

*David Koenke*  
Seattle, Washington

*Andrew Gemino*  
*Peter Tingling*  
Vancouver, British Columbia



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# Preface

We undertook the development of the third Canadian edition of *Experiencing MIS* because we believe that the skills inherent in the study of information systems are important to the innovation and productivity of every Canadian industry. We are not alone in this belief. The Canadian Coalition for Tomorrow's Information and Communication Skills ([www.ccict.ca](http://www.ccict.ca)), a collection of companies and educational institutions, has recognized the growing innovation gap and the challenge of developing the skills for tomorrow's workplace in students today. The foundations for these skills are firmly rooted in studies of both information technology and business. We view this course as a gateway to these topics for many students. Our hope in developing this edition is to interest students in furthering their knowledge in the combined study of business and technology.

In the coming years, technologies will radically change how people relate with each other. Organizations will become more virtual and people will work with other people they may never meet face to face. Many jobs that are here today will be eliminated and new jobs will take their place. All of this change will be driven by people who experience MIS. So, start your experience today!

## Key Updates to This Edition

We have revised this edition of *Experiencing MIS* to include the latest innovations in the field of information systems. We have also added unique new features and application information to help students interact with and apply the material. Key updates to the third Canadian edition include the following:

- Four new running cases that help to introduce each section in the book and provide questions to promote analysis and collaborative assignment at the end of each section
- Profiles of young successful students from across Canada that illustrate why they believe that having knowledge of MIS is important and how they have applied it towards their everyday and longer-term goals
- Five Application Extensions focused on database design and MS Excel, MS Access, MS Visio, and MS Project to address the growing need to incorporate these tools into everyday work
- New discussions on Web 2.0 and the impact of social media
- Canadian cases focusing on small- and medium-sized businesses that are relevant employers for many of our students
- Revised discussions of Acquiring Information Systems Through Projects (Chapter 10) and Structure, Governance and Ethics (Chapter 11)

Perhaps most importantly, we have done all of this without significantly increasing the number of pages from the second edition.

In addition, for those instructors looking for more detailed discussion of Enterprise systems, we have coordinated the material in this third Canadian edition to fit neatly with chapters 7 and 8 from the book "Processes, Systems and Information: An Introduction to MIS". These additional resources focus on procurement (Chapter 7) and the sales (Chapter 8) as detailed in SAP enterprise application. These chapters are available on the MyMISLab platform.

The features in this book are designed to encourage students to take an active role in developing their own understanding of MIS and how it relates to their business career. We believe that when we experience MIS from our own personal perspective, we realize the important role that information systems play in our lives now and in our future careers.

## **Features**

Experiencing MIS is the theme of this book and student engagement is the ultimate objective. We have designed the book to engage students through a variety of features and to provide opportunities for students to ground their knowledge in practical exercises and real-life examples.

### **New Student Profiles**

Profiles of young successful students from across Canada that illustrate why they believe that having knowledge of MIS is important and how they have applied it toward their everyday and longer-term goals open each Part.

### **New Running Cases**

Each of the four Parts in the book begin with a Running Case Introduction to help introduce each section in the book. Following this Running Case Introduction, the chapters in each Part open with a Running Case providing rich examples that run through each group of three chapters. The chapter Running Cases provide an example that can be used in class and that students can relate to. Each Part ends with a Running Case Assignment to promote analysis and collaborative questions that can be used to solidify understanding of the cases and the material presented in each chapter.

### **Chapter Study Questions**

We made a choice to organize all of our content around questions. Each chapter focuses on seven or eight questions that guide students through the content. Using questions helps engage students in a search for relevant knowledge and challenges students to think about the material rather than memorizing sections and lists.

### **Active Review**

The chapter study questions are supported by Active Review questions near the end of each chapter. These questions are more detailed questions that offer an opportunity for students to see how much they have learned. If students are unable to answer the Active Review questions, they can turn back and review the appropriate section earlier in the chapter. This reinforces learning and provides feedback to students so they can better target their study.

### **MIS in Use and Case Studies**

Each chapter includes an MIS in Use mini-case that provides a real-life example of the questions discussed in the chapter. Each MIS in Use mini-case also comes with a set of questions that can be used in the lecture or as hand-in assignments. The mini-case and questions provide further opportunity to highlight important issues and create student engagement with the material. A second case study is also provided at the end of each chapter for additional real-world examples. We have worked to provide a wide range of case studies so that students are aware of the differences in MIS across organizations.

## Using Your Knowledge

At the end of each chapter, we have included a number of Using Your Knowledge questions. These questions provide opportunities for written assignments or discussion questions that often integrate the various issues raised in the chapter. The Using Your Knowledge questions provide another mechanism for engaging students in developing their own ideas about what MIS means to them.

## What Do YOU Think?

These exercises are a unique feature of *Experiencing MIS* because they are designed to encourage students to develop their personal perspectives about issues in MIS. Several of the exercises (Chapters 3, 8, 9, and 10) focus on ethical issues, but a variety of issues is covered. These exercises can be used in class for discussion or outside the classroom as personal assignments. The answers to these exercises are not “hard and fast”—they require students to develop their own opinions. This forging of opinions creates further engagement with the material. We encourage instructors to find ways to incorporate these exercises into their classes so that students can experience MIS in a personal way.

## Collaborative Exercises

Students often comment that they learn from group experiences. The Collaborative Exercises at the end of each chapter provide opportunities for students to interact and discuss topics related to chapter content. These assignments allow students to engage with the material in a group format designed to stimulate discussion and feedback that supports individual learning.

## Application Extensions

We have included five Application Extensions that focus on practical introductory skills for database design, MS Excel, Database Design, MS Access, and MS Project. The Introduction to Excel and Introduction to MS Project reflect the changing personal productivity skills that are expected for graduating students in any business career.

We believe that the key to creating an effective experience for students in this course is to provide opportunities for students to engage with the material and to develop their own personal perspective on MIS. The features provided in this book are designed to support this development, at the same time providing a stimulating introduction to the world of MIS. We believe this book effectively presents information that students will need to be successful in their careers. We trust that this book demonstrates that the field of MIS remains as important in the coming decade as it was in the past and that our success in developing students with knowledge of MIS will play a critical role in our future economic development.

## Additional Chapters on SAP Enterprise Systems

Through Pearson Canada, we have the unique opportunity to coordinate the material in this third Canadian edition to fit neatly with Chapters 7 and 8 from the book *Processes, Systems, and Information: An Introduction to MIS* by Kroenke and McKinney, Jr. Instructors who would like to provide students with more in depth knowledge of how SAP treats the procurement and sales process are encouraged to consider these additional resources. We have adjusted Chapters 1 through 7 in the Canadian edition so that the definitions and business process approach provide a seamless transition to these additional resources. These additional chapters are available on MyMISLab.

## **Supplements**

The third Canadian edition of *Experiencing MIS* is accompanied by a range of supplementary material available to both instructors and students.

### **Teaching Tools for Instructors**

The following instructor supplements are available for downloading from a password-protected section of Pearson Education Canada's online catalogue ([www.pearsoned.ca/highered](http://www.pearsoned.ca/highered)). Navigate to your book's catalogue page to view a list of those supplements that are available. See your local sales representative for details and access.

#### **Instructor's Resource Manual**

This valuable resource features numerous teaching tools to help instructors make the most of the textbook in the classroom. Chapter objectives, chapter outlines, and answers to the questions are provided for each chapter.

#### **MyTest**

The MyTest is a powerful assessment generation program that helps instructors easily create and print quizzes, tests, and exams, as well as homework or practice handouts. Questions and tests can all be authored online, allowing instructors ultimate flexibility and the ability to efficiently manage assessments anytime, anywhere.

#### **Test Item File**

This test bank includes all the questions from the MyTest version in Microsoft Word format.

#### **PowerPoint® Presentations**

These presentations combine lecture notes with images from the textbook. The lecture presentations for each chapter can be viewed electronically in the classroom or printed as black-and-white transparency masters.

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This library contains .gif or .jpg versions of figures from the textbook.

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MyMISLab for *Experiencing MIS*, Third Canadian Edition, is a state-of-the-art learning management system complete with diagnostic tests with customized study plans, student remediation, and media resources, such as case studies, PowerPoints, annotated figures, videos, and an eText. Visit the MyMISLab to access data sets needed to answer

questions for the text's Running Cases. MyMISLab is the most effective way to manage and deliver your course and help your students master the material. The Pearson MyTest assessment generator accompanies *Experiencing MIS*, Third Canadian Edition. Draw from a rich library of questions that complement your textbook to easily create multiple assessments that can be stored, saved in Word or PDF, and printed.

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Andrew Gemino  
Peter Tingling