



ENTERPRISE ANALYTICS

Optimize Performance, Process, and
Decisions through Big Data



EDITED BY
THOMAS DAVENPORT

Enterprise Analytics

Enterprise Analytics: Optimize Performance, Process, and Decisions Through Big Data

Table of Contents

Contents

Foreword and Acknowledgments

About the Authors

Introduction: The New World of Enterprise Analytics

Part I: Overview of Analytics and Their Value

Chapter 1 What Do We Talk About When We Talk About Analytics?

Why We Needed a New Term: Issues with Traditional Business Intelligence

Three Types of Analytics

Where Does Data Mining Fit In?

Business Analytics Versus Other Types

Web Analytics

Big-Data Analytics

Conclusion

Chapter 2 The Return on Investments in Analytics

Traditional ROI Analysis

The Teradata Method for Evaluating Analytics Investments

An Example of Calculating the Value

Analytics ROI at Freescale Semiconductor

Table of Contents

Part II: Application of Analytics

Chapter 3 Leveraging Proprietary Data for Analytical Advantage

Issues with Managing Proprietary Data and Analytics

Lessons Learned from Payments Data

Endnote

Chapter 4 Analytics on Web Data: The Original Big Data

Web Data Overview

What Web Data Reveals

Web Data in Action

Wrap-Up

Chapter 5 The Analytics of Online Engagement

The Definition of Engagement

A Model to Measure Online Engagement

The Value of Engagement Scores

Engagement Analytics at PBS

Engagement Analytics at Philly.com

Chapter 6 The Path to Next Best Offers for Retail Customers

Analytics and the Path to Effective Next Best Offers

Offer Strategy Design

Know Your Customer

Know Your Offers

Know the Purchase Context

Analytics and Execution: Deciding on and Making the Offer

Learning from and Adapting NBOs

Table of Contents

Part III: Technologies for Analytics

Chapter 7 Applying Analytics at Production Scale

Decisions Involve Actions

Time to Business Impact

Business Decisions in Operation

Compliance Issues

Data Considerations

Example of Analytics at Production Scale: YouSee

Lessons Learned from Other Successful Companies

Endnote

Chapter 8 Predictive Analytics in the Cloud

Business Solutions Focus

Five Key Opportunities

The State of the Market

Pros and Cons

Adopting Cloud-Based Predictive Analytics

Endnote

Chapter 9 Analytical Technology and the Business User

Separate but Unequal

Staged Data

Multipurpose

Generally Complex

Premises- and Product-Based

Industry-Generic

Exclusively Quantitative

Business Unit-Driven

Specialized Vendors

Table of Contents

Problems with the Current Model

Changes Emerging in Analytical Technology

Creating the Analytical Apps of the Future

Summary

Chapter 10 Linking Decisions and Analytics for Organizational Performance

A Study of Decisions and Analytics

Linking Decisions and Analytics

A Process for Connecting Decisions and Information

Looking Ahead in Decision Management

Endnotes

Part IV: The Human Side of Analytics

Chapter 11 Organizing Analysts

Why Organization Matters

General Goals of Organizational Structure

Goals of a Particular Analytics Organization

Basic Models for Organizing Analysts

Coordination Approaches

What Model Fits Your Business?

How Bold Can You Be?

Triangulating on Your Model and Coordination Mechanisms

Analytical Leadership and the Chief Analytics Officer

To Where Should Analytical Functions Report?

Building an Analytical Ecosystem

Developing the Analytical Organization Over Time

The Bottom Line

Endnotes

Chapter 12 Engaging Analytical Talent

Table of Contents

Four Breeds of Analytical Talent

Engaging Analysts

Arm Analysts with Critical Information About the Business

Define Roles and Expectations

Feed Analysts Love of New Techniques, Tools, and
Technologies

Employ More Centralized Analytical Organization
Structures

Chapter 13 Governance for Analytics

Guiding Principles

Elements of Governance

You Know You're Succeeding When...

Chapter 14 Building a Global Analytical Capability

Widespread Geographic Variation

Central Coordination, Centralized Organization

A Strong Center of Excellence

A Coordinated Division of Labor Approach

Other Global Analytics Trends

Endnotes

Part V: Case Studies in the Use of Analytics

Chapter 15 Partners HealthCare System

Centralized Data and Systems at Partners

Managing Clinical Informatics and Knowledge at Partners

High-Performance Medicine at Partners

New Analytical Challenges for Partners

Centralized Business Analytics at Partners

Hospital-Specific Analytical Activities: Massachusetts General
Hospital

Hospital-Specific Analytical Activities: Brigham & Womens

Table of Contents

Hospital

Endnotes

Chapter 16 Analytics in the HR Function at Sears Holdings Corporation

What We Do

Who Make Good HR Analysts

Our Recipe for Maximum Value

Key Lessons Learned

Chapter 17 Commercial Analytics Culture and Relationships at Merck

Decision-Maker Partnerships

Reasons for the Groups Success

Embedding Analyses into Tools

Future Directions for Commercial Analytics and Decision
Sciences

Chapter 18 Descriptive Analytics for the Supply Chain at Bernard Chaus, Inc.

The Need for Supply Chain Visibility

Analytics Strengthened Alignment Between Chaus IT and
Business Units

Index