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# Knowledge Management

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# Knowledge Management

- *Lecture slideshows to accompany the textbook "Knowledge Management" by Brian Satterlee.*

## Chapter Headings

- Ch 1. Principles of Knowledge Management (KM)
- Ch. 2 Organization Learning and Knowledge Management
- Ch 3. Knowledge Workers (KW)
- Ch 4. Enterprise Intelligence (EI)
- Ch 5. Basic Process Improvement (BPI)
- Ch 6. BPI Tools
- Ch 7. Business Intelligence Applications (BIA)
- Ch 8. Business Process Re-Engineering (BPR)



# Chapter 1

## PRINCIPLES OF KNOWLEDGE MANAGEMENT

# Major Topics

- What is Knowledge Management (KM)?
- Origin of KM
- Knowledge Strategies
- Systematic Processes of KM
- Knowledge Worker
- Tacit Knowledge
- Knowledge Transfer
- Measure of Knowledge Management
- Benefits of KM

# What is Knowledge Management?

- Knowledge Management Defined
  - The Knowledge Age
- Origin of Knowledge Management
  - Ancient Indications
  - The modern practice
  - Shapers of KM thought
- The purpose of Knowledge Management

# Knowledge Worker

- Defined
  - Peter Drucker's contribution
- What is knowledge work?
- Knowledge Network

# Technology

- What technology is available?
- How should a technical solution be used to solve a knowledge management issue?

# Knowledge Strategies

- Foundational understanding of knowledge strategies
  - Understanding what knowledge is important to an organization
  - Knowing the business outcome
- Clear and explicit links to business strategy
- Implementing an effective knowledge Strategies
  - Knowledge framework
  - Knowledge environment
  - Knowledge initiative



# Systematic processes of Knowledge Management

- Knowledge Capture
- Organization and Storage
- Knowledge Sharing
- Knowledge Application

# Knowledge Transfer

- Understanding the value of sharing information
- Establishing an environment which promotes sharing of critical knowledge



# Measurement of Knowledge Management

- Why measure?
- Measure performance
  - Stages in measurement
  - Measurement system
- Putting in place a system to measure progress
  - Input
  - Output

# Information Architecture

- Core Principles
  - Metadata
  - Information Model
  - Data Semantic
- Integrity and Quality
  - Data Management
  - Data Integrity
  - Data Quality

# Information Architecture Methodology

- Gather requirements
- Collect Metadata
- Construct Information
- Rationalize
- Deploy or Utilize

## Integrating KM with existing technology

- Introducing Knowledge Management to an Organization
- Integrating Knowledge Management in an existing environment

## Changing a Culture

- Introducing workers to knowledge management change
- Include workers from various group to be part of the design change

## KM and its effect on the Economy

- Efficiently deal with growth
- Utilized KM to deal with economic fluctuations

## Value Creation

- How does KM create value?
- How can it be measured?

## Tracks of Knowledge Management

- People Track
- Object Track

## What Benefits can companies expect from Knowledge Management?

- Intellectual Capital
  - What is IC?
  - What is Intellectual Property
    - Brands
    - Patents
- Intangible Assets

# Knowledge Management initiatives

- Corporate Structure
- Corporate knowledge based systems
  - Expert Systems
- Knowledge Audits
- KM Training





# Chapter 2

## ORGANIZATION LEARNING AND KNOWLEDGE MANAGEMENT

# Key Concepts

- What is Organizational Learning?
- *The Fifth Discipline*, by Peter Senge
- How does Organizational Learning relate to Individual Learning?
- Types and Stages of Learning
- Types of Knowledge
- Examples of Learning Organizations
- Case Studies and Real-World Application of OL
- OL Trends for the Future
- What is Knowledge Management?
- What is Knowledge Transfer?
- Knowledge transfer from an organizational perspective
- Business Strategies regarding Knowledge Management

- Introduction
- What is Organizational Learning?
  - What defines a learning organization?
    - What are the promises?
    - What are the pitfalls?

## According to Peter Senge, *The Fifth Discipline*

- Systems Thinking
- Personal Mastery
- Mental Models
- Building Shared Vision
- Team Learning

- How does Organization Learning relate to Individual Learning
  - How do people learn?
    - Stages of Learning
      - Adaptive Learning
      - Proactive Learning

# Knowledge

- Explicit Knowledge
- Tacit Knowledge



# Trends for the Future

- Roles of IT in Organizational Learning
- Computer-based Training



# What is Knowledge Management?

- What is Knowledge Transfer
  - Knowledge Transfer Challenges
  - Knowledge Transfer Process
- Knowledge transfer from an organizational perspective



# Business Strategies regarding Knowledge Management

- Change Management
- Best Practices
- Risk Management
- Benchmarking



# Chapter 3

## Knowledge Workers

# Major Topics

- Roles for Knowledge Workers
- Management of Knowledge Workers
- Improving Knowledge Worker Productivity
- Hiring the best Knowledge Workers
- Downsizing of Knowledge Workers
- Knowledge Network
- Knowledge Bases
- Tools to improve productivity
- Emotional Intelligence
- Knowledge Communities
- Knowledge Workers lack of “Knowledge”
- The Future of Knowledge Workers



# Chapter 4

## Enterprise Intelligence

# Major Topics

- Leveraging Organizational “Know-How”
- Explicit versus Tacit Knowledge
- Cognitive Dimension of Tacit Knowledge
- Technical Dimension of Tacit Knowledge
- Four Modes of Knowledge derived from Explicit and Tacit Knowledge
- Sharing Knowledge
- Performance Support
- Success Stories
- Interacting with Operational Databases
- Bridging Structured and Unstructured Data
- Data Integration
- Building Expert Networks
- Commitment
- Motivation
- Building a Better Knowledge Trap

# Leveraging Organizational Know-How

- Knowledge Defined
- Explicit versus Tacit Knowledge
- Two Dimensions of Tacit Knowledge
  - Cognitive Dimension
  - Technical Dimension
    - Socialization
    - Internalization
    - Externalization
    - Combination
- Sharing Knowledge

# Performance Support

- What Is Performance Support
- Goals of Organizational Learning
- Case Study-Lennox International
- Success Stories



# Interacting with Operational Databases

## Bridging Structured and Unstructured Data

- Unstructured Data
- Structured Data
- Data Integration





# Building Expert Networks

## Building Systems

- Commitment
- Motivation
- Building A Better Knowledge Trap





# Chapter 5

## BASIC PROCESS IMPROVEMENT

# Introduction

- Definition
- Who Owns Processes?
- What is Process Improvement?
- How Does Process Improvement Benefit the Organization?
- How Does an Organization Get Started on Process Improvement?

# Basic Process Improvement Model

- Step 1: Select a Process and Establish the Process Improvement Objective
- Step 2: Organize the “Right” Team
- Step 3: Flowchart the Current Process

# Steps, cont.

- Step 4: Simplify the Process and Make Changes
- Step 5: Develop a Data Collection Plan and Collect Baseline Data
- Step 6: Is the Process Stable?

# Steps, cont.

- Step 7: Is the Process Capable?
- Step 8: Identify Root Causes for Lack of Capability
- Step 9: Plan to Implement the Process Change

# Steps, cont.

- Step 10: Modify the Data Collection Plan
- Step 11: Test the Change and Collect Data
- Step 12: Is the Modified Process Stable?
- Step 13: Did the Process Improve?
- Step 14: Standardize the Process and Reduce the Frequency of Data Collection



# Chapter 6

## BASIC PROCESS IMPROVEMENT TOOLS



# BPI Tools

- Affinity Diagram
- Cause and Effect Diagram
- Flowcharting
- Operational Definitions
- Brainstorming
- Team Decision-Making Tools
- Multivoting
- Nominal Group Technique




# Chapter 7

## Business Intelligence Applications

# Major Topics

- Business intelligence applications
- Decision support systems
- Decision support in business
- Levels of managerial decision making
- Customer relationship management
- Supply chain management
- Information systems
- Business partner applications
- Information technologies
- Online analytical processes
- Knowledge and innovation management



- Introduction to Business Intelligence Applications

- Definition
- Evolution

# Decision Support Systems

- Trends
- Customized Applications
- Personalized Applications
- Web-Enabled Applications



# Decision Support Systems in Business

## Levels of Managerial Decision Making

- Strategic
- Tactical
- Operational



## ■ Customer Relationship Management

1. Application Components
2. Phases and Types
3. Business Value

# Supply Chain Management

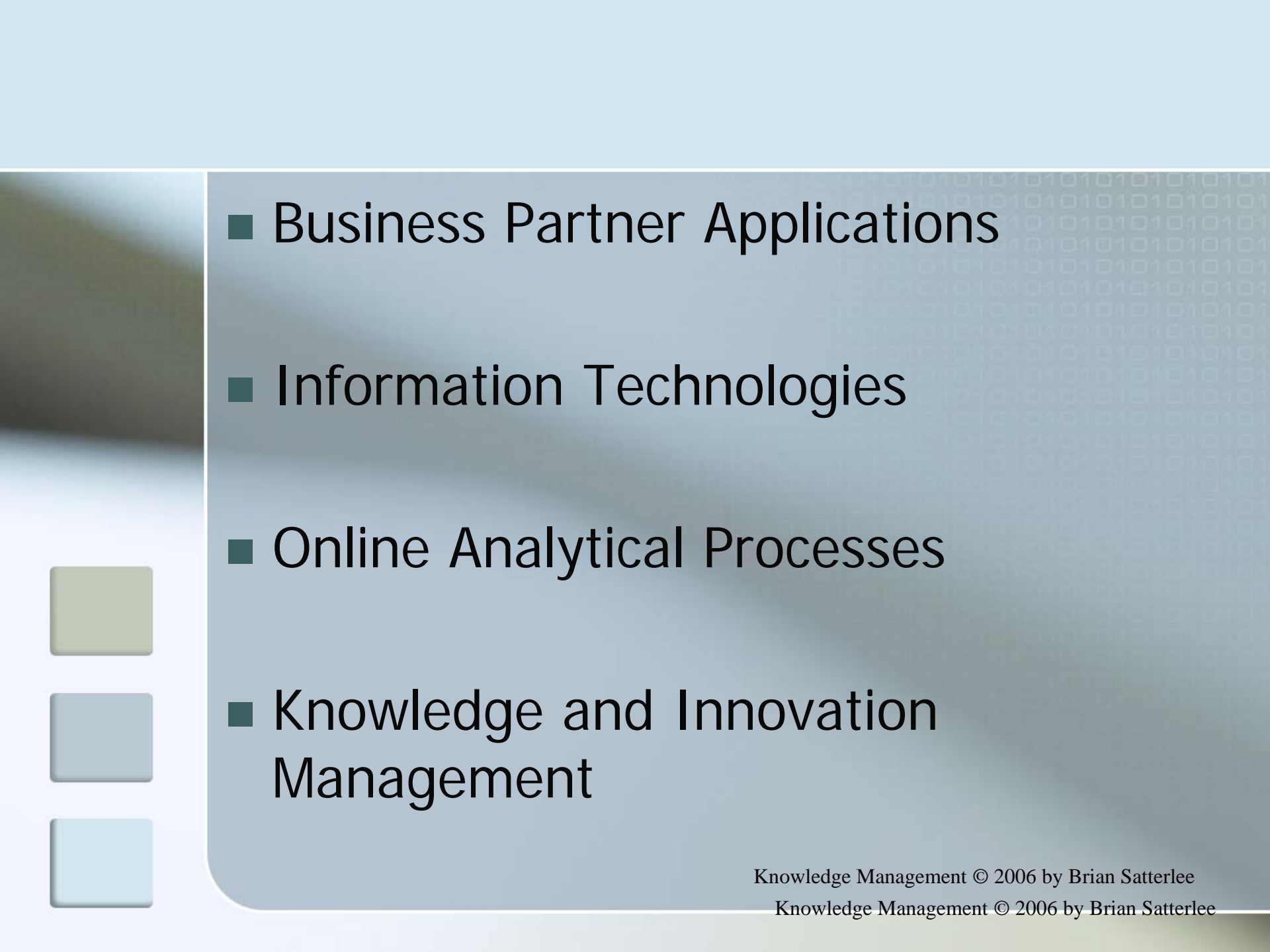
1. Application Components
2. Objectives and Roles
3. Life Cycle
4. Business Value



# Information Systems

1. Executive (Management)
2. Enterprise
3. Geographic



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- Business Partner Applications
  - Information Technologies
  - Online Analytical Processes
  - Knowledge and Innovation Management



# Chapter 8

## Business Process Re-Engineering

# Major Topics

- Origins of business process reengineering.
- Business process reengineering defined.
- Components of business process reengineering.
- How to implement business process reengineering.
- Three keys to successful business performance (when redesigning processes).
- The six-step reengineering project model (suggested graph).
- The role of measurement within redesign and successful implementation.
- Knowledge management defined.
- Components of knowledge management.
- Difference between data, information, and knowledge.
- Transforming data into knowledge.
- The six-laws of knowledge management (suggested chart).
- Selection of an IS systems to support knowledge management.
- Benefits of embracing knowledge management.
- How to facilitate the implementation of knowledge management.
- The role of the workplace environment on knowledge workers and company success.



- History of Business Process Reengineering (BPR)

- Origins of business process reengineering.

- What is BPR?

- Business process reengineering defined.

## Components of BPR

- Components of business process reengineering.
- How to implement business process reengineering.
- Three keys to successful business performance (when redesigning processes).
- The six-step reengineering project model (suggested graph).

# Principles of Knowledge Management

- Difference between data, information, and knowledge.
- Transforming data into knowledge.
- The six-laws of knowledge management (suggested chart).
- Selection of an IS systems to support knowledge management.
- Benefits of embracing knowledge management.
- How to facilitate the implementation of knowledge management.

## ■ Summary

- The role of the workplace environment on knowledge workers and company success.
- The relationship of Business Process Reengineering to Knowledge Management.
- The benefits businesses should expect when Business Process Reengineering supports Knowledge Management.
- How management supports Business Process Reengineering and Knowledge Management.