ROR Analysis
- Net Present Value (NPV)
  - What is it?
  - What is the formula for it?
    - as a function of interest rate \( i \).
    - or as a function of discount factor \( \delta \)
- Rate of Return
  - What is it?
  - How do you compute it?

IT History
- What distinguished the Data Processing Era from the Micro-Era?
- What distinguished the Micro-Era from the Networking Era?
- Why did Data Processing Managers feel threatened in the Micro-Era?

Messerschmitt 2.3
- Information
- Data
- Information Push
- Information Pull

O'Brien Chapter 2
- Porter's Competitive Forces
- Why is Porter’s Competitive model useful?
- Porter’s Strategies
- Cost Leadership Strategy
- Differentiation Strategy
- Innovation Strategy
- Growth Strategy
- Alliance Strategy
- Lock in customers and suppliers
- Switching Costs
- Barriers to Entry
- Porter’s Value Chain
- Business Function
- Business Process (also in Messerschmitt 3.3.1)
- Business Process Re-engineering
- (Also called Business Transformation in Messerschmitt 3.3.1)
- Knowledge vs. Information
- Knowledge Management

Messerschmitt 3.1
• Departmental Applications
• Enterprise Applications
• Commerce Applications
• Customer Care or Customer Relationship Management (CRM) Transaction Processing Systems (see lecture slides)
• Batch transaction processing (see lecture slides)
• On-line Transaction Processing (OLTP)
• Workflow
• Human Resource Management (see Assignment 3)

**Messerschmitt 3.3**
- Operations
- Business Processes
- Business Transformation
- ERP (Enterprise Resource Planning)
- Decision Support
- Knowledge Management (also in O’Brien Ch2)

**Messerschmitt 3.4**
- Electronic Commerce
- Inter-enterprise Commerce (B2B)
  - Direct Procurement
  - Indirect Procurement
  - Supply chain Management (SCM)
  - Mass Customization
  - Electronic Data Interchange (EDI)
- Consumer Commerce (B2C)
- Interconsumer Commerce (C2C)
- E-Commerce Transaction
- Matching Buyers and Sellers
- Catalog, Advertising, Intermediary Recommendation
- Negotiating Terms and Conditions
- Auction, Fix Price, Price Discrimination
- Consummation
- Order, Fulfillment, Payment
- Customer Service
- Intermediaries

**Messerschmitt 4**
- Data vs. Information
- Information represented as data
- Is it always possible to recover information from data?
- Regeneration

**Messerschmitt 4.3**
• System Architecture Elements
  o Decomposition
  o Functionality
  o Interaction
• Why architect systems in this way?
• Emergence

Messerschmitt 4.4
• Software Layering
• What is the benefit of architecting software with layers?
• Operating System
• Middleware
• File System
• Database Management System
• Network Functions
• Message
• Packet

Messerschmitt 4.5
• internet
• Internet
• intranet
• extranet

Case Studies

Cisco ERP
What are some of the actions that Cisco took that contributed to the successful deployment of ERP?

What mistakes did Cisco make?

What are the most important lessons that another company that wants to deploy ERP could learn from Cisco’s experience?

Frito-Lay Case
What was the HHC?

What were the main reasons why Frito Lay deployed the HHC?

What changes in marketing strategy did Frito-Lay believe the HHC data would help enable?

How might the HHC project change Frito-Lay’s competitive position with its direct competitors, new entrants, and its customers?
Alibris Case
How did Alibris plan to change Interloc’s revenue model?

What were the potential benefits and risks of this change?

How did Alibris plan to avoid becoming dis-intermediated?

Why did Alibris abandon Thunderstone software, and why did it choose to switch Oracle?

What made Alibris’ IT challenge particularly difficult compared to what other ecommerce companies faced?