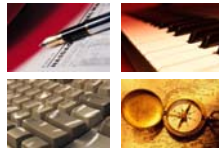


# Management of Technology

## B01-2. Management of Technology



- Code: 166125-01
- Course: Management of Technology
- Period: Spring 2013
- Professor: Sync Sangwon Lee, Ph. D

## Contents

- 01. Status of MOT
- 02. Technology
- 03. Innovation
- 04. Technology Innovation
- 05. High-Tech Management



## 02. Technology

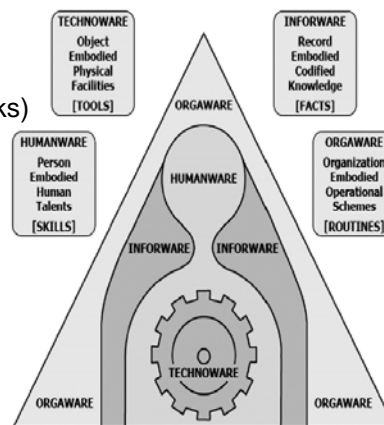
- Technology
  - Definitions
    - Society's pool of knowledge regarding the industrial arts
    - The translation of technological knowledge into methods of production
    - All components to affect competitiveness and product/service quality
  - Technology
    - = physical process + social arrangements



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## 02. Technology

- Components of Technology
  - Technoware (= physical facilities)
    - Machine, tool, computer, ...
  - Humanware (= human abilities)
    - Knowhow, experience, ...
  - Inforeware (= documented facts)
    - Manual, database, map, ...
  - Orgaware (= institutional frameworks)
    - Information systems
    - Business model, ...



Burgelman, Christensen and Wheelwright, and Sharf

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## 02. Technology

- Technology
  - Know-how
  - Innovation/convergence
  - Economical efficiency (O)
  - Applying natural phenomena to real life
- Science
  - Know-why
  - Discovery/analysis
  - Economical efficiency (X)
  - Exploring/discovering/understanding natural phenomena



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## 02. Technology

- Technologies that Managers Should Know
  - Mechanism of existing technology
    - Operation(how it works)
    - Terminology(jargon)
    - Environment
  - Competitiveness of existing technology
    - Core components of technology
    - Strengths/weaknesses of technology
    - Life cycle of technology
    - Substitute technology
  - Trend of emerging technology
    - Pattern/direction of technology development
    - Possibility of technology commercialization



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## 02. Technology

- Classification of Technology (Characteristics)

- Product technology → **Scope Economy**
  - What/why
  - Ex. performance, function, ...
- Production/process technology → **Scale Economy**
  - How
  - Ex. effective production, ...
- Management technology → **Network Economy**
  - How/when/where/who
  - Ex. outsourcing, R&D, ...

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## 02. Technology

- Classification of Technology (Competitiveness)

- Base technology
- Key technology
- Pacing technology



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## 02. Technology

- Classification of Technology (Industrial Features)
  - Equipment-based technology
  - Product-based technology
  - Process-based technology
  - Operations-based technology
  - Knowledge-based technology

