



Business Intelligence Concepts, Tools, and Applications

Week 1: Decision Making and Decision Support Systems

Lesson 4: Decision Making Support in Practice

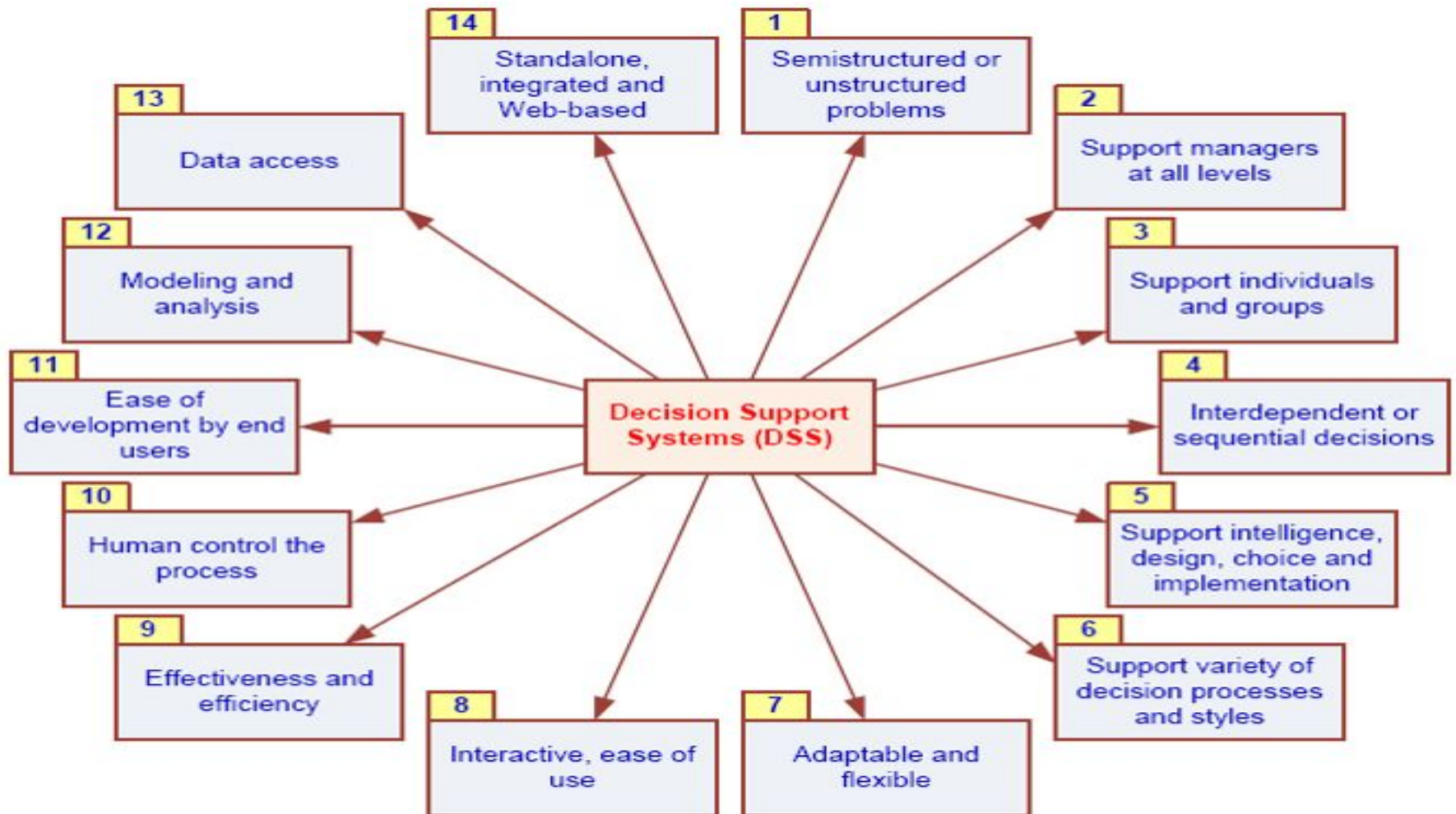


Decision Making Support in Practice

- Learning objectives
 - Learn how DSS have evolved over last decade
 - Comprehend how DSS support various phases of decision making and identify related DSS
 - Summarize how DSS have evolved into Business Intelligence and Analytic systems



DSS Capabilities



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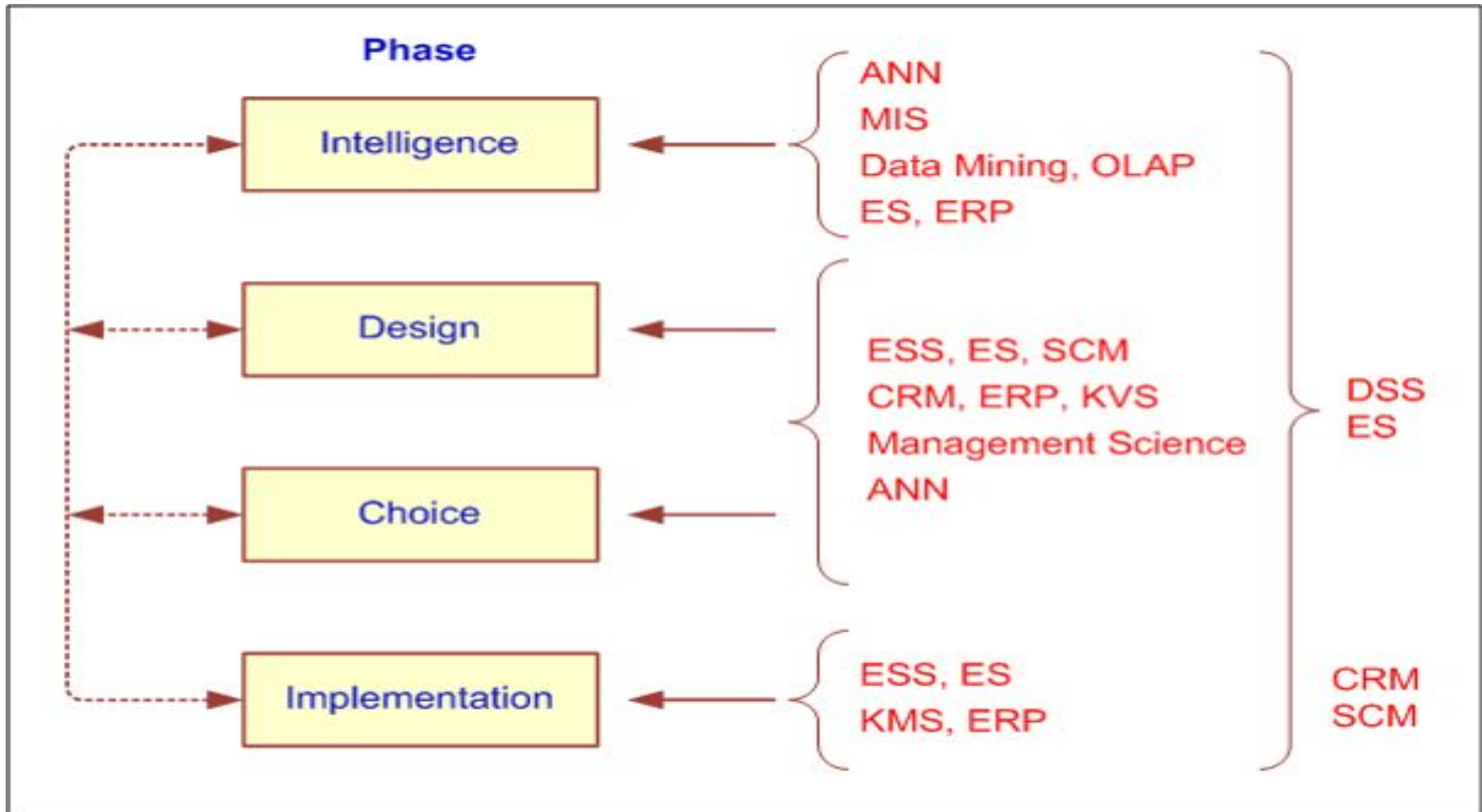
Business School

UNIVERSITY OF COLORADO DENVER



Information Systems Program

How decisions are supported in Practice



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How decisions are supported in practice

Intelligence Phase

- Enabling continuous scanning of external and internal information sources to identify problems and/or opportunities
- Resources/technologies: Web; ES, OLAP, data warehousing, data/text/Web mining, EIS/Dashboards, KMS, GSS, GIS, ...
- Business activity monitoring (BAM)
- Business process management (BPM)
- Product life-cycle management (PLM)



How decisions are supported in practice

Design Phase

- **Generating alternatives**
 - *Structured/simple problems*
 - standard and/or special models
 - *Unstructured/complex problems*
 - human experts, ES, KMS, brainstorming/GSS, OLAP, data/text mining



Support for the Choice Phase

- Use sensitivity analyses, what-if analyses, goal seeking
- Resources
 - KMS
 - CRM, ERP, and SCM
 - Simulation and other descriptive models



Support for Implementation Phase

- Decision communication, explanation and justification to reduce resistance to change
- Resources
 - Corporate portals, Web 2.0/Wikis
 - Brainstorming/GSS
 - KMS, ES



Other DSS types

- Ad hoc DSS
- Custom-Made Versus Ready-Made DSS
- Institutional DSS



Generations of DSS

- DSS with separate databases
- DSS with traditional data warehousing
- DSS with real time data warehousing
- DSS embedded in other systems
- DSS components integrated more frequently



Evolution of DSS Into Business Intelligence and Analytics

- DSS began in the late 1960s with researchers with OR/MS backgrounds
- In early 70's DSS research focused on conceptual foundations, development issues, and applications
- In late 70s and early 80s DSS research and practice intertwined
- In 80's additional DSS applications (e.g., EIS, GDSS) emerged
- In the early 90's data warehousing became important
- In early 2000 BI tops many CIOs agenda
- Today BI and Analytics revolution demands higher-level of skills

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Hands-on Exercise #1

Offline / Standalone Dashboards with Advanced Visualizations

Dynamic Dashboards Help Business People Make Better Decisions, Faster

