

***Information System Types and
Components***

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**[http://jpaulgibson.synology.me/~jpaulgibson/TSP/Teaching/
CSC4104/CSC4104-InformationSystemTypesComponents.pdf](http://jpaulgibson.synology.me/~jpaulgibson/TSP/Teaching/CSC4104/CSC4104-InformationSystemTypesComponents.pdf)**

What Are The Types Of Information Systems?

Classify By Domain -

- Business Information Systems
- Health Information Systems
- Agriculture Information Systems
- Education Information Systems
- Production Line/Manufacturing Information Systems
- Geographical Information Systems
- Transportation Information Systems
- Biological Information Systems
- Social Information Systems
- Multimedia Information Systems
- Government Information Systems, etc.

What Are The Types Of Information Systems?

Classify By Subdomain (eg, Business) -

- Knowledge Work System
- Management Information System
- Decision Support System
- Office Automation System
- Transaction Processing System
- Executive Support System
- Enterprise Resource Planning
- Customer Relationship Management
- Financial Management System
- Risk Management System, etc.

What Are The Types Of Information Systems?

Classify By Architecture-

- Monolithic Architecture
- Client-Server Architecture
- Service-Oriented Architecture (SOA)
- Microservices Architecture
- Event-Driven Architecture (EDA)
- Layered Architecture
- Peer-to-Peer Architecture (P2P)
- Event-Driven Messaging Architecture
- Hybrid Architectures, etc.

<https://medium.com/@abhijitgunjal1648/types-of-system-architectures-eb37dd496971>

What Are The Types Of Information Systems?

Classify By Architecture Specialisation (eg, Client-Server) -

- 1-tier
- 2-tier
- 3-tier

<https://msatechnosoft.in/blog/types-of-client-server-architecture/>

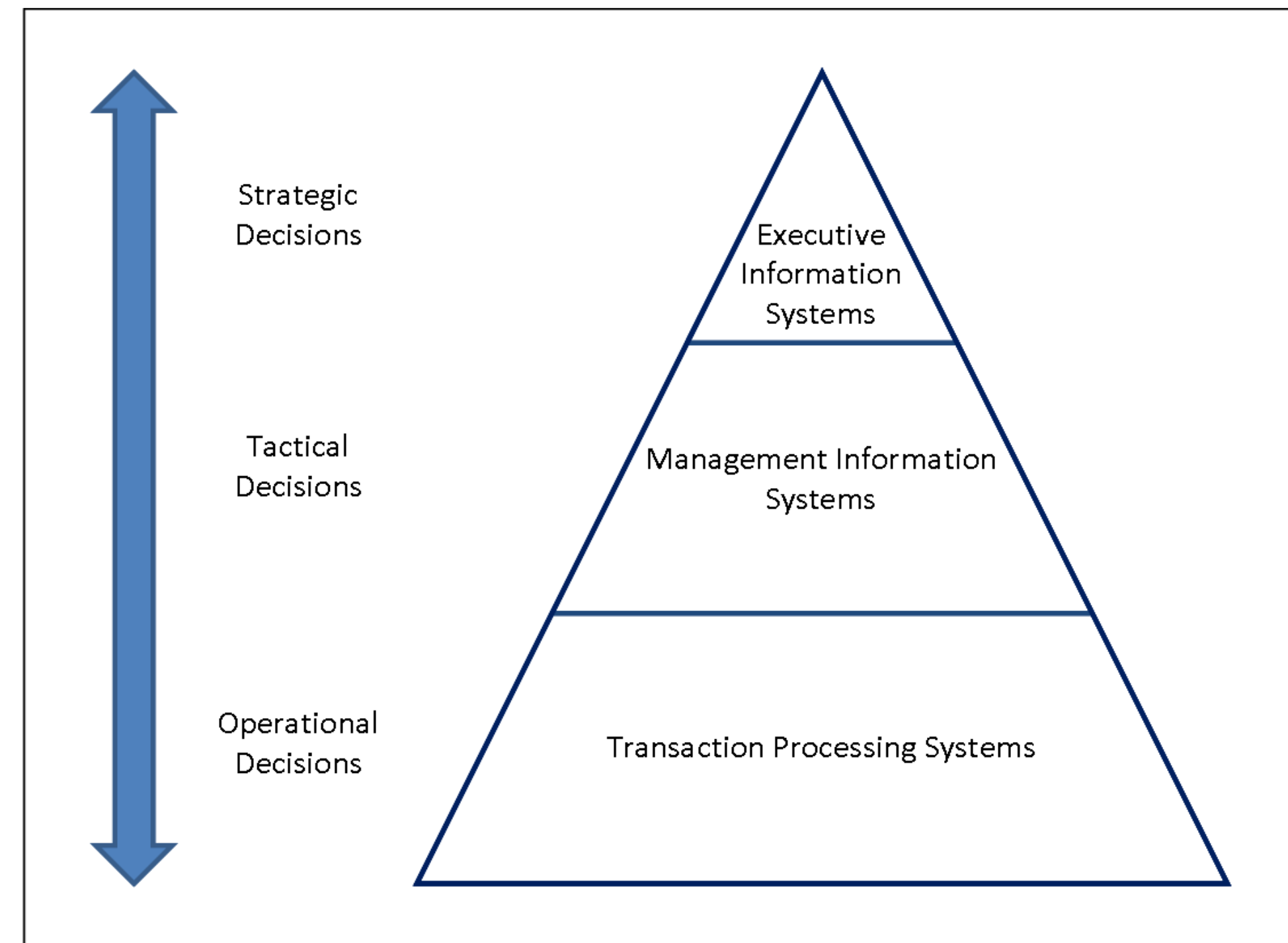
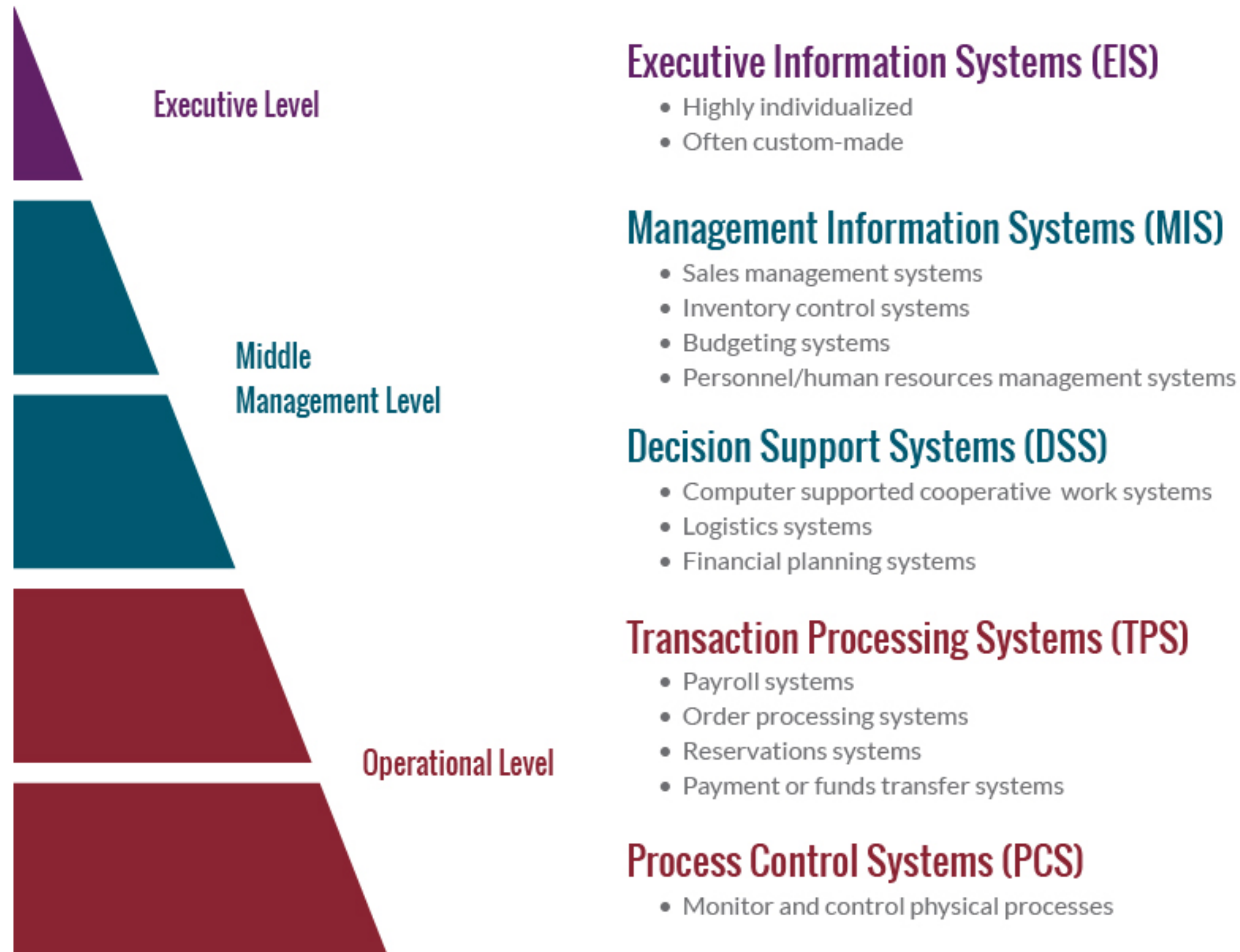
What Are The Types Of Information Systems?

Classify By Technology Being Used -

- Expert Systems (use AI & ML)
- Intelligent Information Systems (use AI & ML)
- IoT Information Systems
- Blockchain Information Systems
- Federated Information Systems

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The Pyramid Model for Classifying Information

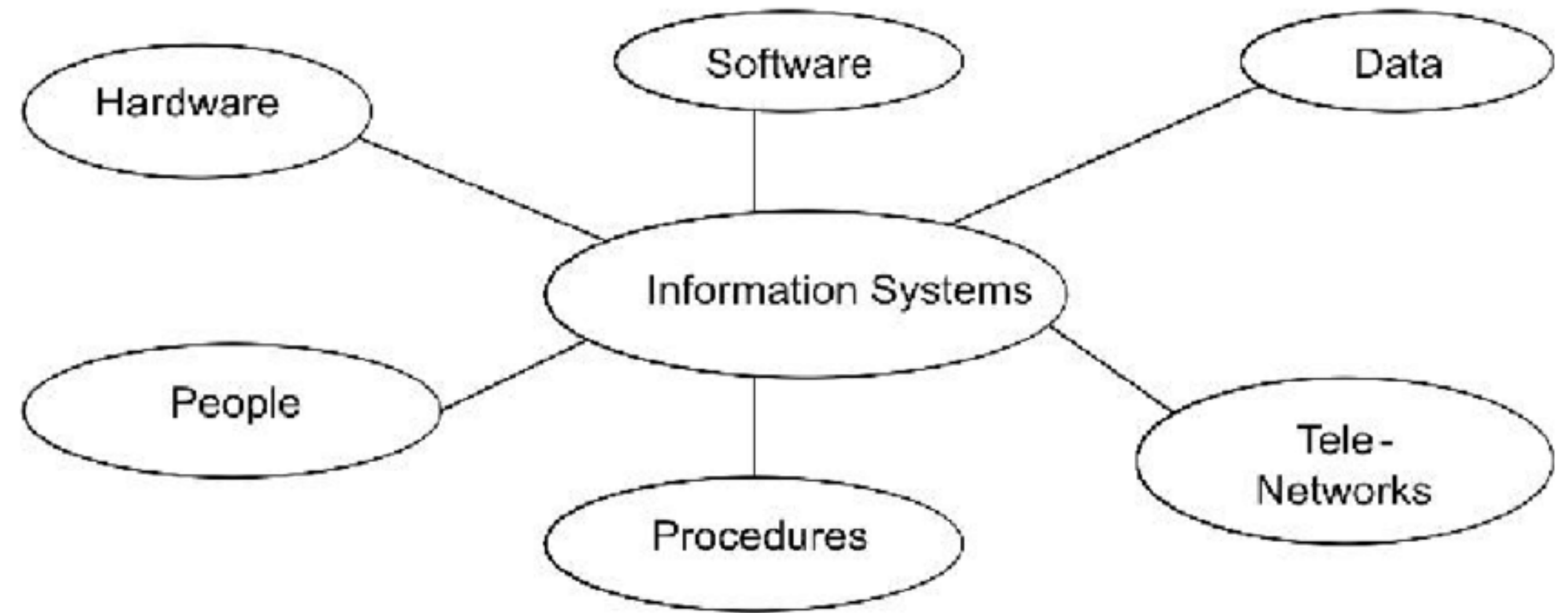


http://www.chris-kimble.com/Courses/World_Med_MBA/Types-of-Information-System.html

<https://www.floridatechonline.com/blog/information-technology/5-types-of-information-systems/>

Components Of Information Systems?

- The information (of course)
- The technology -
 - hardware
 - software
 - telecommunications
 - databases/stores
- The humans
- The laws/rules/procedures/process
- The environment (don't forget)



What is Information?

The traditional **DIKW** pyramid

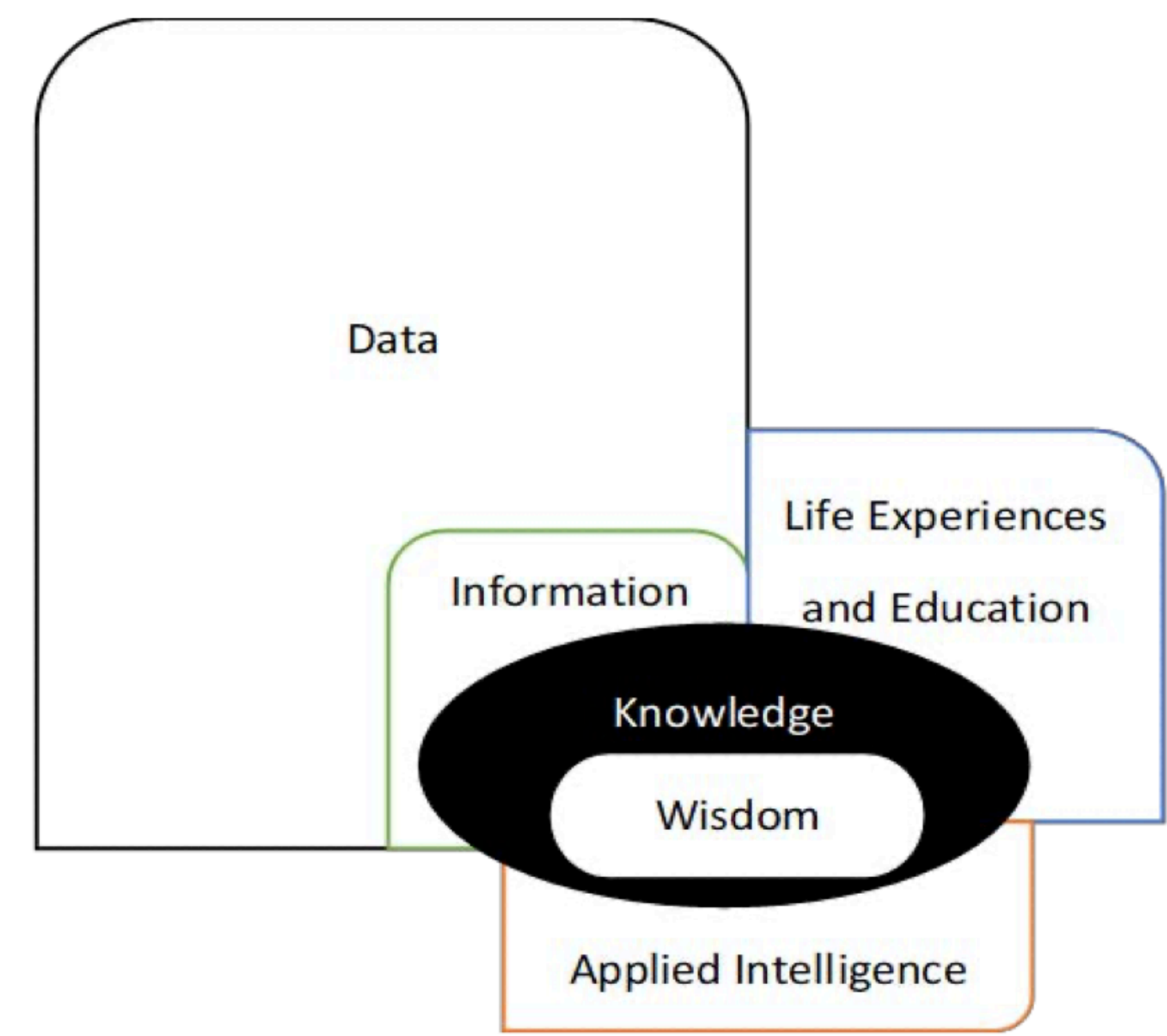


Van Meter, Heather J. "Revising the DIKW pyramid and the real relationship between data, information, knowledge, and wisdom." *Law, Technology and Humans* 2.2 (2020): 69-80.

<https://search.informit.org/doi/pdf/10.3316/agispt.20210112042035>

What is Information?

The reconfigured DIKW diagram



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What is Data?

'Data' is any symbol, sign or measure which is in a form which can be directly captured by a person or a machine.

We can then use related terms to differentiate between different kinds of data. In particular:

'Real-world data' is data which represents or purports to represent a fact in the real world; whereas 'synthetic data' is data which does not.

What is Information?

'Information' is data that has value. Informational value depends upon context. Until it is placed in an appropriate context, data is not information, and once it ceases to be in that context it ceases to be information.

What is Knowledge?

The term 'knowledge' is often used to refer to a body of facts and principles accumulated by mankind in the course of time.

Epistemology is the study of knowledge

What is Information Systems?

'Information Systems' (IS) is the study of information production, flows and use within organisations.