

Digraphs and Relations

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What is a digraph?

- ▶ Short for a “*Directed Graph*”.
- ▶ Comprised of vertices and edge (common to all area of graph theory, but edges are directed - often indicated with arrows)
- ▶ Useful for visualizing relations.
- ▶ Very useful for a variety of IT applications (e.g. Multistate process (behaviour of AI player) and project management).
- ▶

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What is a relation?

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- ▶ Useful for mathematically expressing behaviour and interaction of AI players in computer games.

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Important Terminology for Relations

- ▶ Reflexive,
- ▶ Symmetrix,
- ▶ Transitive,
- ▶ Equivalence Relation.