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All observations are not equally *time-critical*, and not equally *important* for the twin. We need **pre-processing, optimization and communication strategies** to support accurate twin operation using limited communication resources. Machine learning and AI-based strategies that **learn and adapt** to the characteristics of the sensors, and the requirements of the twin will be of special interest.



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A digital twin

- is a *virtual representation* of a physical asset or *process*
- enabled through data and simulators
- for real-time prediction, optimization, monitoring, control, and improved decision making.

For *real-time operation*, the twin requires continuous updating with new measurements from its observation platforms.