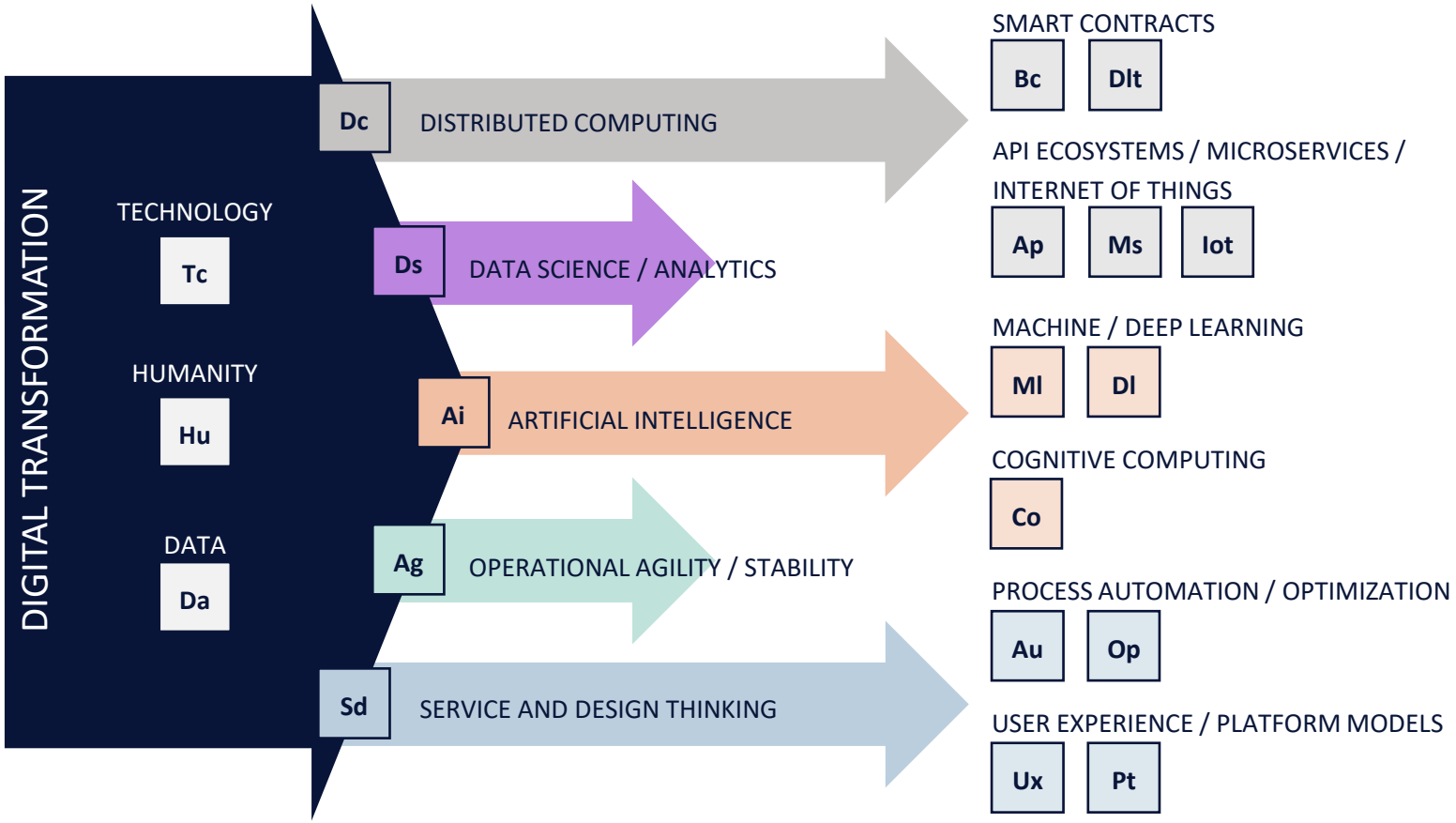
What is Digital Transformation?

Technology has advanced.

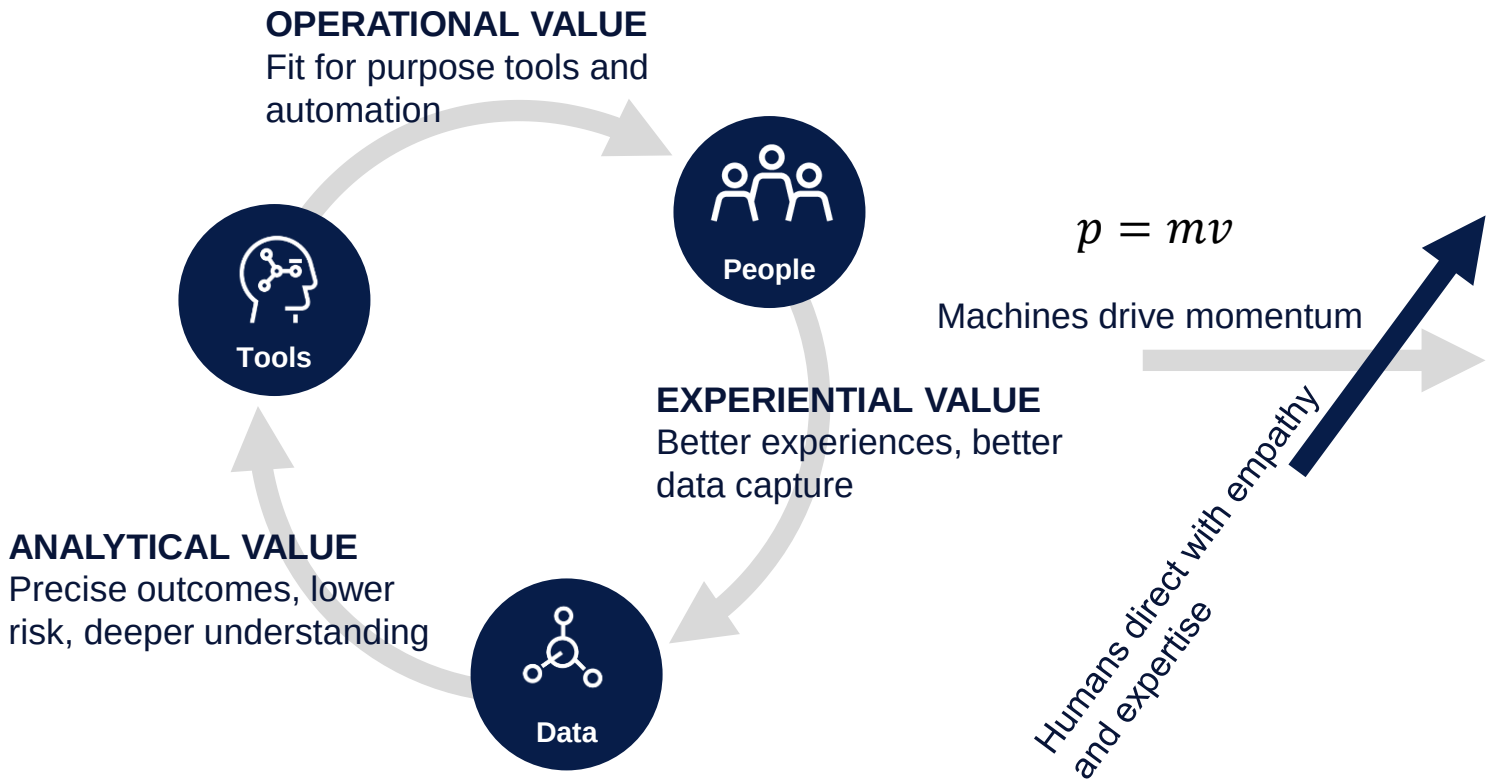
Data has advanced.

Humanity has …

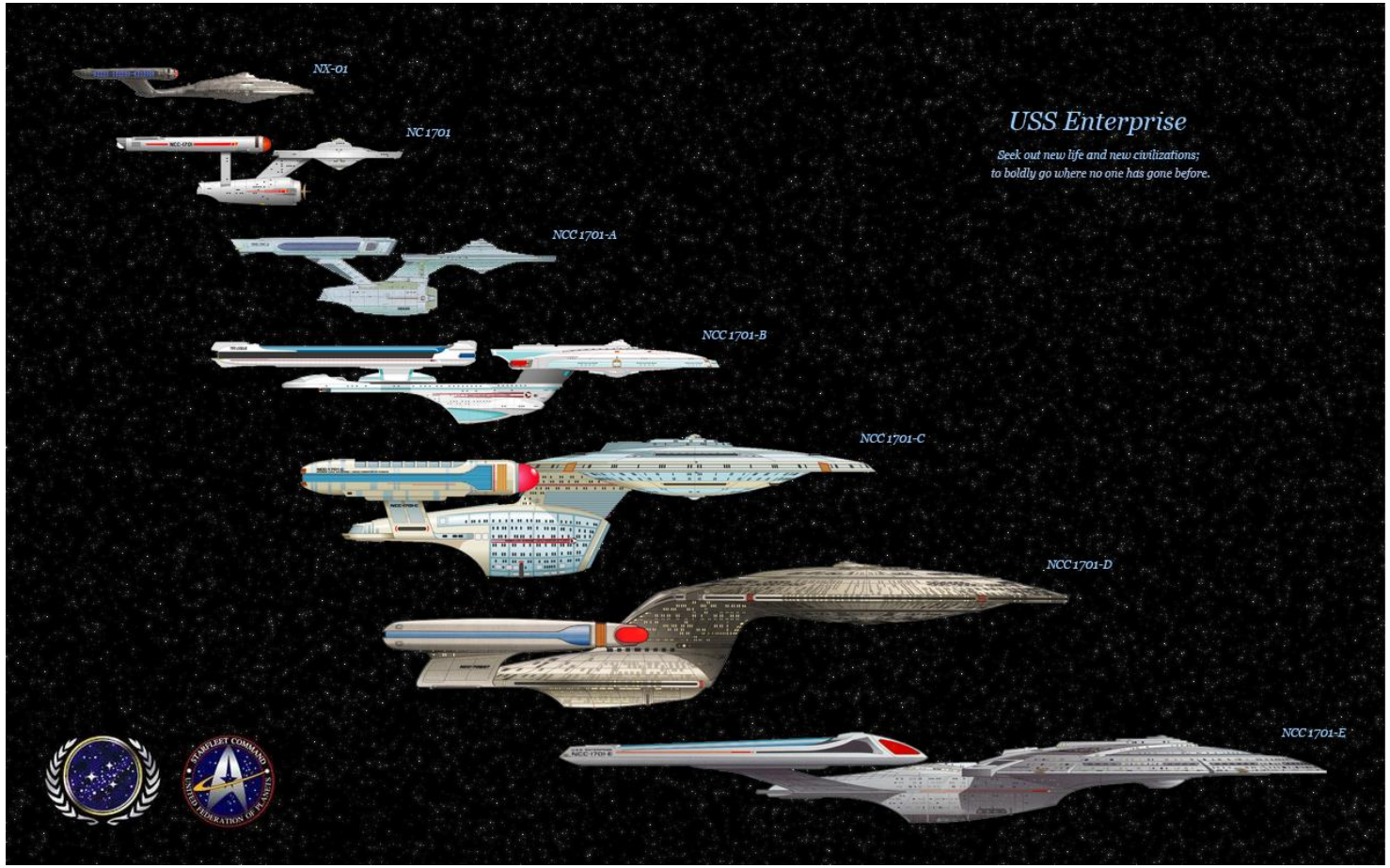


Why is the virtuous cycle important?

- Digital transformation requires energy, we don't have a lot to spare.
- Embracing the virtuous cycle allows us to drive momentum from machines with agility from human direction – Intelligent Automation.
- Leverages our advantages as a large enterprise to compete with smaller, more nimble competitors – Augmented Intelligence.

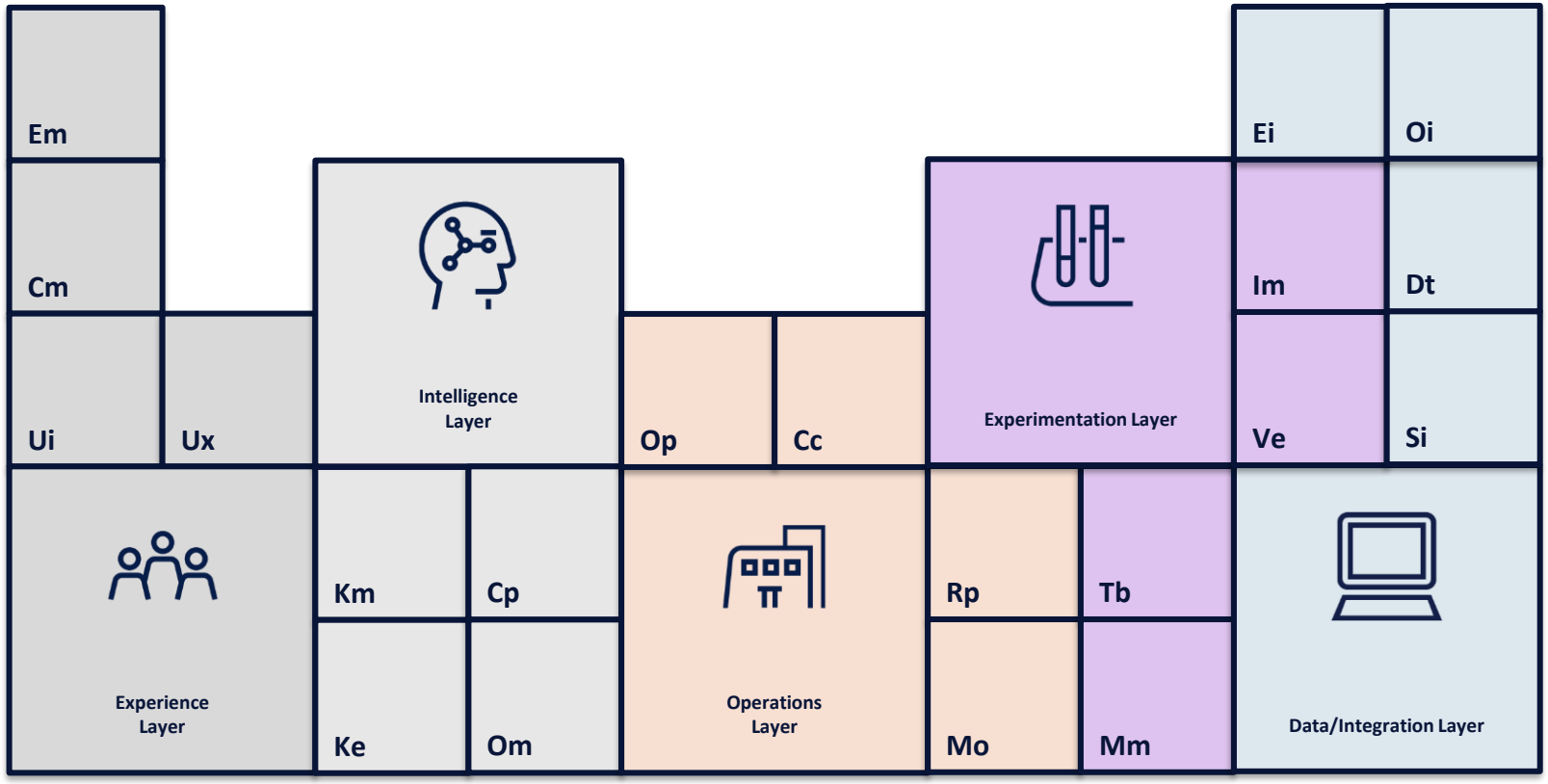


Let’s talk about SPACE…



(obligatory Star Trek reference)

The Structured Platform Approach to Cognitive Ecosystems (SPACE)



The Data/Integration Layer

Tools, repositories, and touchpoints within the enterprise that represent data-at-rest concerns for the platform.

Integration touchpoints and components within an enterprise that represent data-in-motion concerns for the platform.

Integration touchpoints and components where the system being accessed is outside the control of the enterprise.

Tools and services to support security and identity operations with the platform and in coordination with data and integration touchpoints.

The Experimentation Layer

Tools to manage the data science and use case backlog and experimentation processes.

Tools to manage the versioning, comparative testing, and deployment of models and networks used by knowledge engines and cognitive processors.

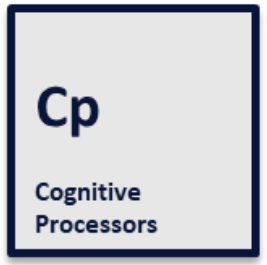
Tools, services, and environments used to perform experiments and generate models for use within the enterprise.

Tools and services used to test and monitor models for operation stability, bias identification, and precision and accuracy in use.

The Intelligence Layer

Tools to manage request processing and orchestration between various back end systems.

Tools to manage data ontologies and metadata information repositories.



Tools and services to perform cognitive work, generally extracting structured metadata from unstructured binary data.

Tools and services that perform a specific knowledge task – prediction, inference, classification, etc.

The Operations Layer

Tools to deploy solution components and environments – traditional DevOps capabilities and components.

Tools and services to support real-time command and control of the platform.

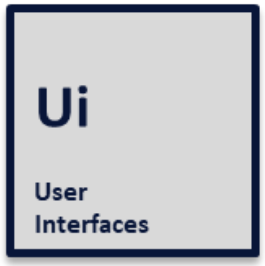
Tools to generate and operate various reporting and logging capabilities.

Tools and agents that allow for the monitoring of the platform and its components.

The Experience Layer

Tools to manage and monitor the level of personalization and experience presented to users.

Tools to manage and maintain content, templates and other digital assets used by solutions.



The various applications and devices used to bridge the human-computer interface.

Frameworks and tools to manage omni-channel user interface capabilities.

Don’t boil the ocean - but have a good map.

Understand which of the SPACE layers and components a solution built around your model will need to be used and deliver value.

You likely won’t need to cover every element or layer, but if you set out knowing what may be needed in the future you’re likely to make better decisions.