ESDM is just the Beginning: Next Generation Interfaces

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Towards a new I/O stack considering:

- User metadata and workflows as first-class citizens
- Smart hardware and software components
- Liquid-Computing: Smart-placement of computing
  - ▶ Utilizing arbitrary compute and storage technology!
- Self-aware instead of unconscious
- Improving over time (self-learning, hardware upgrades)

Why do we need a new domain-independent API?

- Other domains have similar issues
- It is a hard problem approached by countless approaches
- Harness RD&E effort across domains