Training AI with a Foundation Model: What's Different?



Foundation models are a new class of AI trained on massive, diverse datasets, enabling rapid finetuning for a wide range of clinical use cases and tasks with minimal additional training. Unlike traditional AI models built for a single purpose, foundation models are designed for versatility, scalability and adaptability across multiple pathologies and use cases.



Foundation Models vs. Traditional Al





Training Data

- Foundation Models: Learn from massive, unlabeled, and multimodal datasets, enabling broad pattern recognition without manual annotation.
- Traditional Al: Depend on manually labeled, task-specific datasets, limiting flexibility and reuse.



Speed of Development

- Foundation Models: Can be fine-tuned for new use cases in weeks, thanks to pretraining on diverse data.
- Traditional AI: Each model must be built from scratch, often taking years to develop.



Scalability

- Foundation Models: Support multiple applications from a single model, enabling cross-department deployment with minimal rework.
- Traditional AI: Built for one task at a time—scaling means stacking disconnected solutions.



Multidimensional Capability

- Foundation Models: Natively process and integrate insights across data types (e.g., images, text), enabling richer clinical decision support.
- Traditional AI: Limited to singlemodality tasks, reducing value in complex or cross-functional workflows.

Learn more about how a foundation model powered by an Al platform is transforming healthcare at www.aidoc.com.