

NeuralMesh™ Offers Data Storage that Meets the Speed of Higher Education Research

WEKA's NeuralMesh™ delivers high-throughput, low-latency storage to break down infrastructure silos across higher education research teams, reclaim idle GPUs, unify all storage operations, and ultimately, keep research teams publishing faster for higher education organizations.

Key Benefits of NeuralMesh

Unify Every Workload in a Single Namespace

- Serve POSIX, NFS, SMB, & S3
- Remove data copying entirely
- Store small and large files together

Accelerate Checkpointing, Finish Long Runs

- Absorb failures without stalls
- Protect projects from restarts
- Complete training simulations without loss

Collapse Silos into Shared Capacity

- Converge isolated systems
- Enforce strict tenant isolation
- Reclaim capacity across all teams

Maximize GPU Utilization Across Clusters

- Push utilization past 90%
- Feed every node continuously
- Recover GPUs stranded by organizational silos

Tier Hot and Cold Data Automatically

- Layer fast flash over cheaper disk-based capacity tier
- Access cold data on demand
- Keep archived datasets ready

Scale from Terabytes to Exabytes

- Hold metadata performance steady despite dataset sizes
- Grow without re-architecting
- Support billions of files

Simplify Operations for Lean Research Teams

- Focus on research, not storage maintenance
- Replace manual tuning with simplified policy

Federate Data Across Institutions Securely

- Enable joint research programs across departments
- Transfer data smoothly to maintain peak performance

10x

Acceleration in research training times

90%

Reduction in cloud storage overhead

375+

Concurrent researchers on a single storage cluster

>95%

GPU utilization up from ~30%

500%

Growth in total research capacity at the University

Higher Education Research Use Cases

Scientific Simulation and AI Data Modeling

NeuralMesh serves large sequential reads and bursty parallel I/O for climate, CFD, materials, and quantum simulation without tuning trade-offs

Genomics & Bioinformatics

NeuralMesh handles petabyte-scale sequence datasets with billions of small files, stripping metadata across all nodes for consistent performance at scale

Physical AI and Computer Vision

NeuralMesh runs synthetic data generation, video analysis, and small-file labeling pipelines on one unified system without a separate storage tier

Shared Research Data Services

NeuralMesh delivers fair-share, chargeback support, and fast federation across institutions, hybrid, and cloud for multi-tenant research clusters

