Data Science Collaboration to Scale Teams and Accelerate Model Delivery

Domino Collaboration creates a central hub for all work, enabling seamless communication, sparking idea generation, accelerating on-boarding of new team members, and creating transparency across all stages of the data science lifecycle.

Domino Collaboration Capabilities Solve Three Core Challenges

- Duplicative efforts and wasted time searching for past work
- Opacity of work across silos of experimentation
- Slow ramp-up times and key-man risk

For many, collaboration is an amorphous term that has limited value because it only offers simple capabilities like discussion threads. Yet, Domino takes a unique data science approach by embedding reproducibility intrinsically into collaboration.

Leverage Domino Reproducibility Engine for Collaboration

By leveraging the Domino Reproducibility Engine, every aspect of your team’s work, including code, data, comments, and results, are captured in a central hub for sharing, reviewing, and discussing work.

Data scientists interact through social discussions and tagging; receive context specific recommendations for work they can leverage; and fork other’s work to get an instant head start. This unique combination of capabilities accelerates model development, increases team collaboration, and removes costly re-work—effectively putting a fly-wheel on your team.

Domino Collaboration Features

Domino Collaboration is comprised of three sets of functionality: communication and discussions, contextual sharing and transparency, and compounding knowledge.

Communication and Discussions

Comments and discussions are common collaboration features in any platform, but Domino Collaboration has made these capabilities specific to data scientists’ workflow to foster full communication. Data scientists start, or participate, in a discussion by creating a comment on code, a result, an experiment, a notebook, or data set. This full discussion capability adds another layer of power to the Domino Reproducibility Engine. Look at any past result or experiment, you can see all the discussion about it, and then navigate to the exact state necessary to recreate it.
As more comments are added, a discussion history emerges so data scientists can restart a project months later, in an instant. Other data scientists not directly working in the project also get a full view and join in the project or pick up that project completely. Lastly, each project has a set of discussion threads that you can review as a newsfeed to get a daily, or weekly update, on how that project is progressing.

Domino Collaboration’s contextually sensitive communication and discussion capabilities enables your data science team to gain specific knowledge of data science work with full visibility into entire experimentation process.

**Contextual Sharing and Transparency**

Creative ideas that drive breakthrough research often arise from spontaneous interactions and non-linear thoughts. Domino Collaboration sparks idea generation with quick sharing of projects, side-by-side experimentation, notifications, and model graphs. For example, two data scientists on your team could be working on similar projects and also benefit from contextual sharing and transparency.

Domino Collaboration allows you to see different experiments and compare results side-by-side, on any instance of a team member’s experiments. To spark this contextual sharing, Domino will proactively recommend other projects and notify data scientists with updates on projects that they collaborate on.

This contextual sharing helps reduce wasted work, ensuring folks working on projects can see and leverage work important to them, at a moment that matters.

With all data science work in the central collaboration hub, you get full transparency across your team’s work, including experiments and models in production. Domino Collaboration provides a model graph that shows how models are linked, with the ability to drill into each model to see which version of code, data, and experiment led to that model. These capabilities create a culture of sharing and idea generation, while removing the opacity of data science work across the entire team.

**Compounding Knowledge**

To compound knowledge, you’ll want to share and reuse work across teams and make past work accessible to new people who join in the future—eliminating the dreaded hand-off issue and improving ramp-up time.

Domino Collaboration solves these problems by offering deep search, tagging, and project recommendations. Domino Collaboration automatically indexes all aspects of projects, including results, code, comments, etc. So that they are all instantly searchable, according to proper permissions and access rights.
Domino Collaboration offers a deep search of data science work, returning exactly all the details of your search, contextual to project, experiment, data, and results. To make the search specific to your business, your team can leverage tagging while you avoid tag explosion, by creating “sanctioned” tags. Lastly, Domino spawns team communication by recommending projects in the same interface where data scientist manage their individual projects.

With these collaboration capabilities, you will have ability to have multiple data scientists work on the same project, and will want to enable them to work independently. Domino Collaboration allows data scientists to fork a project experiment, without affecting the mainline. The Reproducibility Engine still maintains a complete history of both experiments. If the fork becomes useful to the original experiment, Domino allows you to request a merge back into the original project, while maintaining the full audit trail. This complete set of knowledge features helps your team go beyond simply searching finished projects, and compound knowledge by bringing the specific item of importance to the data scientist at the time they need it.

Domino Data Lab provides the world’s most advanced data science platform, powering organizations that are using predictive models to drive their business. Companies including Allstate, Coatue, Mashable, Monsanto and startups alike use Domino to accelerate breakthrough research, increase collaboration and productivity of data scientists, and more rapidly deliver models to drive business impact.

“Iterating on ideas faster speeds up the research process. Being able to more rapidly improve and deploy new strategies makes Domino a valuable tool for us.”

Alexander Izydorczyk,
Head of Data Science at Coatue