### Data Model for Big Data Graphic Text Description

* All **data** entering the system is dispatched to both the batch layer and the speed layer for processing.
* The **batch layer** has two functions:
  + Managing the master dataset (an immutable, append-only set of raw data)
  + Pre-compute the batch views
* The **speed layer** compensates for the high latency of updates to the serving layer and deals with recent data only
* The **serving layer** indexes the batch view so that they can be queried in a low-latency, ad-hoc way
* Any incoming **query** can be answered by merging results from batch views and real-time views