Model Registry ((trained models)

1) V1
2) V2

Performance Feedback loop
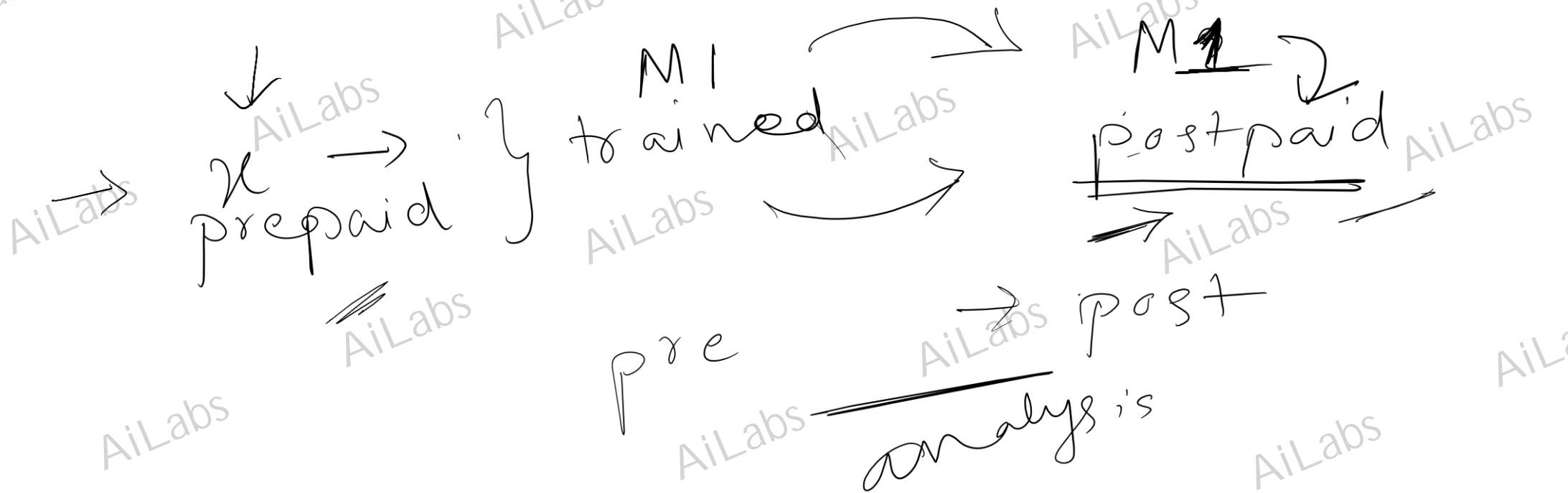
$(\rightarrow \qquad \rightarrow)$

P $\rightarrow$ E $\rightarrow$ Automate

3) Model drift Feedback loop

⇒ Automate model update (Re-training)

4) Alarm Manager

• Alerts → Model monitoring system

Data Drift

x prepaid $\}$ trained $\quad$ M1 $\quad\rightleftharpoons\quad$ M1 postpaid

pre $\rightarrow$ post analysis

Scheduler → interval

→ 12:00 am   recsey.py   3 - 4
                              4 hrs
    → 10 → email

Lineage tracker

→   Amazon

         (ML) → product
               recommend.

Winter
January → socks, (wollen)

summer
May → socks, (cotton)

Domain

accuracy ↓

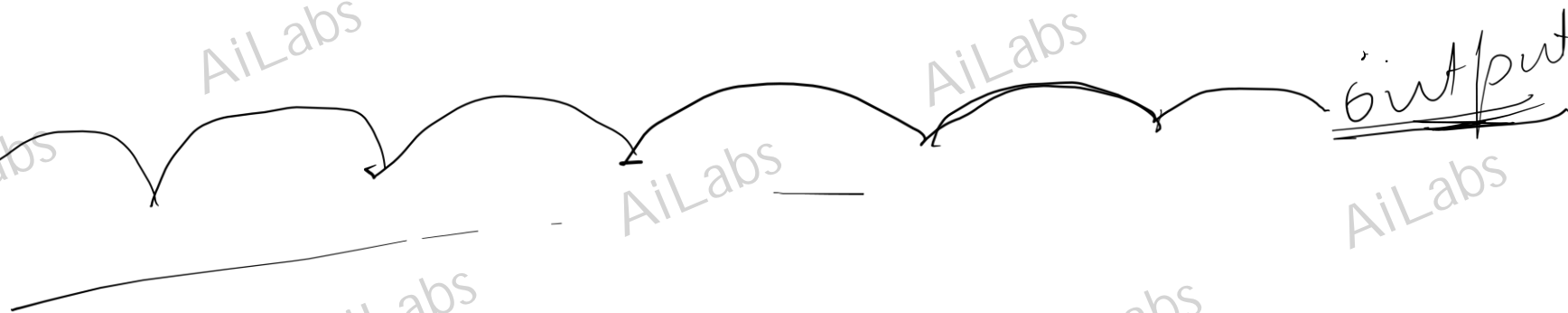January → (ML) → prd_rec_mod_v14

↓ new

May → ML → prd_rec_mod_v15

lineage of data / Model.

date, location
↓
input
data??

output

Data processing

Data collection	Data preparation / wrangling
Ingest [— streaming — Batching] ⟶	processing — clean — Partion — scale — Unbia

Feature Engineer
— Ft. selection
— Ft. transform

Collection

① Ingest + Aggregate

ETC | ELT

heic ← → play

Data
Source

Data
Lake

Data
Warehouse