Category

Data & AI

Data Literacy for Experiment Design & A/B Testing Playbook

Designing tests that actually answer the question you're asking, before you run them

- Practitioner
- Intermediate
- Template Included

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- 4 minute(s)

Overview

A framework for building rigorous experiment design and A/B testing literacy — proper randomization, sample size and power calculation, and avoiding common testing pitfalls (peeking, multiple comparisons) — addressing the gap between running A/B tests casually and running them with genuine statistical rigor.

Most A/B testing platforms handle the statistics automatically —

why does the team still need this literacy? Platforms calculate statistics correctly given the inputs, but they don't prevent common design errors — inadequate sample size, testing multiple variants without correction, or peeking at results before reaching planned significance — which require the team's own literacy to avoid, regardless of platform sophistication.

What's the single most common and consequential A/B testing

mistake? Peeking at results early and stopping the test as soon as they look favorable — this practice, even when using a technically correct significance calculation, substantially inflates the rate of false positive conclusions compared to a properly pre-registered test duration.

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