The Problem with Averages in Product Metrics

Key Issues
* Mask important distribution patterns
* Can be skewed by outliers
* Hide segment-specific behavior
* May indicate false positives/negatives

Common Scenarios Where Averages Mislead
* User engagement metrics (e.g., posts per user)
* Content creation frequency
* Transaction volumes
* Time-based metrics (e.g., time spent in app)
* Revenue or monetization metrics

Better Alternatives

Percentages and Thresholds
* "% of users who do X at least N times per period"
* "% of users above threshold Y"
* Retention rates by cohort

Distributions
* Segment users into meaningful cohorts
* Track metrics by percentile (e.g., p50, p90)
* Look at distribution shapes and changes

Combination Metrics
* Pair volume metrics with quality signals
* Track both breadth and depth of engagement
* Monitor leading and lagging indicators together

Best Practices
1. Always question if average is right metric
2. Consider what behaviors you really want to drive
3. Test if metric moves as expected in edge cases
4. Ensure metric aligns with user/business value
5. Monitor for unintended consequences
6. Segment data before drawing conclusions

Example: Creator Engagement
Instead of "average posts per creator":
* "% of creators posting weekly"
* "Weekly post frequency distribution by creator type"
* "Creator retention rate by posting frequency cohort"

Remember: The goal of metrics is to drive better decisions. If a metric masks important signals or creates wrong incentives, it's not serving its purpose.