CURIOSITYBITS LIVING LAB BOSTON · STUDY #01 PRE-REGISTRATION & STUDY DESIGN CARD (V4.3)

Pre-Registration / Study Design Card — Study #01: Executive SEC Disclosures, Day-1 Blame Penalties & 30-Day Drift (`v4.0`, `SKILL-012` — `SKILL-018`)

1. Research Question & Theoretical Anchor

- **Research Question:** In verbatim corporate earnings disclosures filed with the U.S. Securities and Exchange Commission (SEC Form 8-K Item 2.02 `EX-99.1` and Form 10-Q), how do executive blame-shifting (`blame_asymmetry`), quantitative guidance vagueness (`question_evasion`), concrete operational plans (`plan_vs_hype`), and rhetorical complexity (`strategic_fog`) affect (a) immediate **Day-1 earnings announcement returns** and (b) **30-day post-announcement abnormal returns (`CAR[+1, +30]`)** across 10 GICS sectors and 5 market cycles (`2022–2026`)?
- **Theoretical Anchors:** Bernard & Thomas (1989) Post-Earnings Announcement Drift (PEAD); Hirshleifer, Lim, & Teoh (2009) Limited Attention; Loughran & McDonald (2011) Financial Text Specificity; Weiner (1985) & Bettman & Weitz (1983) Self-Serving Attribution Bias; Klein (1998) Recognition-Primed Decision Intuition.

2. Q1 — Primary-Source Operational Measurement (`v4.0` Verbatim SEC EDGAR Panel, `SKILL-016` & `SKILL-017`)

- **Open-Access Primary Sources:** 1. **SEC EDGAR (`data.sec.gov` & `sec.gov/Archives/edgar/data/`):** Verbatim Form `8-K` Item 2.02 (`EX-99.1` earnings releases, N = 176) and Form `10-Q` (N = 4) filings (`929–2,492` chars, median `2,488` chars, `180/180` unique texts, **`0/180` post-event calendar years**), each linked to its exact `sec_cik`, `sec_accession_number`, `sec_filing_date`, and `sec_filing_url`. 2. **Yahoo Finance (`v8/finance/chart/{ticker}?range=5y&interval=1d`):** Unfiltered dividend- and split-adjusted daily closes (`adjclose`) for all 96 companies and the `SPY` benchmark (`SKILL-017`).
- **Outcome-Blind Stratified Sample (`SKILL-006`, `SKILL-013`, `SKILL-017`):**
- **N = 180 Verbatim SEC Filings** across **M = 96 unique public companies**, **10 GICS sectors (`18` filings per sector)**, and **5 calendar years (`2022–2026`, `36` filings per year)**, plus **N = 11 Live Q3 2026 Observatory Calls** and **N = 24 Holdout Skill Validation Cases** (215 total corporate events).
- **Minimum Same-Ticker Cooldown: 69 calendar days** (`0` overlapping 30-day return windows).

- **Unfiltered Natural Return Tails:** `realized_30d_pct` spans **`[-27.48%, +30.17%]`** (Mean = +0.01%, SD = 8.68%, \max|z| = 3.47, excess kurtosis = +1.01).

3. Q2 — Multi-Judge Coding & Raw Judge Ballots (`SKILL-012` & `SKILL-018`)

- **Entity- & Year-Masked Coding Panel (`N = 191` units in `data/raw_judge_ballots.json`):** 1. `google/gemini-3-flash-preview` (`temp = 0.0` , OpenRouter) 2. `deepseek/deepseek-chat` (`temp = 0.0` , OpenRouter) 3. `meta-llama/llama-3.3-70b-instruct` (`temp = 0.0` , OpenRouter) 4. `local/structural-linguistic-v1` (Deterministic numerical & lexical specificity baseline)
- **Verified Inter-Judge Reliability (`data/annotation_validation.json`):**
- `question_evasion` : ICC(2,4) = 0.7993, mean pairwise r = 0.5400 (`151/191` unique consensus values)
- `blame_asymmetry` : ICC(2,4) = 0.7618, mean pairwise r = 0.4691
- `plan_vs_hype` : ICC(2,4) = 0.7808, mean pairwise r = 0.5960
- `strategic_fog` : ICC(2,4) = 0.6710, mean pairwise r = 0.5471
- `word_tone` : ICC(2,4) = 0.8464, mean pairwise r = 0.7285

4. Q3 — Two-Way Fixed Effects, Out-of-Sample Evaluation & Falsification Criteria (`SKILL-005` & `SKILL-018`)

- **Econometric Specifications:** Firm-clustered (M = 96 clusters) and White HC1 standard errors controlling for `day1_price_reaction_pct` , `pre_20d_return_pct` , `pre_20d_volatility_pct` , `word_tone` , 10 GICS sector fixed effects, and 5 year fixed effects (`2022–2026`).
- **Out-of-Sample Forecast Protocol (`SKILL-018`):** 5-Fold Leave-One-Year-Out cross-validation across `2022–2026` comparing Surface Word Tone, Unshrunk Stateless Text OLS, and the Skill-Guided Market-Aware Agent (`SKILL-001` Day-1 reversal + `SKILL-003` shrinkage).