MASTER'S THESIS · RESEARCH SUMMARY

Cheap Talk or Costly Signal? AI Narratives as Weak Signals in Venture Capital Financing Across the Hype Cycle

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THE FINDING, IN ONE SENTENCE

Investors price the AI label, but the funding funnel sorts AI substance.

The question

Nearly every startup now claims to be built on artificial intelligence. Because a claim in a company's own description is costless to make, it sits at the boundary of what signalling theory treats as credible at all. This thesis asks how AI narratives relate to the funding outcomes ventures achieve, and how the information content of those narratives changed as claiming became ubiquitous. It extends the weak-signal perspective of Tumasjan, Braun and Stolz (2021) from audience-generated sentiment to the harder case of a self-reported claim, authored by the party with the strongest incentive to embellish.

Data and design

Proprietary PitchBook records under a confidentiality agreement: **376,366 technology ventures** founded 2010 to 2024, linked to **869,172 completed financing events**. The methodological cornerstone is a two-source measurement strategy that crosses each venture's **self-reported AI framing**, taken from its business description, against an **independent third-party classification** of whether it operates in AI. Crossing the two separates talk from substance and yields four mutually exclusive groups.

Validated AI	38,409	claims AI, corroborated
Claim-only	6,059	claims AI, not corroborated
Quiet AI	19,276	classified AI, does not claim it
Non-AI	312,622	reference group

The central dissociation

At the moment of valuation the three AI groups are priced alike, and the ordering bears no relation to substance. Realised progression through the funding funnel separates the very same ventures cleanly by substance, against a non-AI baseline graduation rate of 33.4 per cent.

NARRATIVE GROUP	VALUATION PREMIUM	GRADUATION ADVANTAGE
Quiet AI	+12.9%	**+19.1 pp**
Validated AI	+12.5%	**+12.1 pp**
Claim-only	+11.8%	**+10.0 pp**

Valuation premia carry wide, overlapping confidence intervals: prices pool. Graduation advantages separate monotonically by substance, each significant at the 1 per cent level: outcomes sort. Sector, country, and cohort fixed effects throughout; standard errors clustered by country.

Robustness

TRIANGULATED CENTRAL ESTIMATE

Fixed effects (LPM)	+19.1 pp
Coarsened exact matching	+18.4 pp
Doubly-robust (AIPW)	+18.6 pp

Three estimators resting on different identifying assumptions agree to within one percentage point.

- Specification curve across 32 analytical choices: positive and significant in every one
- Competing risks: quiet AI ventures graduate more (36.7% vs 27.7% at 36 months) and fail less (2.4% vs 7.4%)
- Oster (2019) selection bound, textual-style controls, multiple-testing corrections
- Blockchain placebo: a claim that stayed scarce kept episodic value, with no ubiquity collapse

Decay with ubiquity

The pricing premium was large while claiming was rare, on the order of 20 to 25 per cent larger early-stage rounds in 2017 to 2019, then eroded and had vanished before the generative-AI surge. The decay also appears in real outcomes: the quiet-AI graduation advantage falls from 30.1 pp among pre-2017 entrants to 11.8 pp among 2020 to 2021 entrants, a significant decline of 2.54 pp per entry year, while the substance ordering is preserved in every phase.

Reported honestly

A proposed adverse-selection mechanism, that the premium erodes because the claimant pool fills with empty claims, matches the descriptive evidence but did not survive a direct test. It is reported as a theory-consistent observation, not as a finding, and no central claim rests on it.

Why it matters

- **Investors:** paying for the AI label now means paying for a signal that no longer discriminates, while independent classification of substance predicts what follows and is underused at pricing
- **Founders:** the value is in the substance, not the claim; the ventures that fared best were the quiet ones whose activity the market could recognise independently

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Full thesis and methodology available on request