VERTICAL:
NEWS AND THOUGHTS ON
PROPERTY TECH

Week 1, August 2025

Ultraviolet Catastrophe via Philip Rosedale

The "Ultraviolet Catastrophe" once described a flaw in physics that was only solved by quantum theory—without limits, infinite energy would have fried the night sky. The internet's design has a similar problem: it places no practical limits on who can send data to whom, resulting in spam, DDoS attacks, and scam messages. This flaw stems from the early openness of ARPANET, where a trusted few managed "bad actors" by simply excluding them. But TCP/IP and all major internet protocols inherited this unlimited, sender-driven architecture.

- If someone has your IP, email, or social handle, they can flood you with unlimited messages—there's no built-in "cost" or gatekeeping. This flaw is now being exploited on a massive scale.
- Until recently, content creation was bottlenecked by human effort. Now, AIs can rapidly generate convincing online identities and millions of believable messages at negligible cost, overwhelming channels with noise, scams, and fake personas.
- The result: the internet is being flooded by AI-generated content, making it harder to trust or find genuine information—a trend first visible in targeted scams but quickly spreading everywhere.

The likely solution: abandon open, address-based communication (like email or public DMs) in favor of encrypted channels that only trusted parties can access—think opt-in, private communication "edges" rather than open "nodes." Early prototypes like ActivityPub and NOSTR show how this could work.

Bottom line: As AI saturates the web with content, a full-scale rewrite of how online communication works is coming. Anonymous broadcast channels will make way for invitation-only, encrypted networks, fundamentally changing how we connect and share online.

Read the Full Article here.

Fund Math for Dummies (Digital Native)

Elite cycling today is a numbers game. Modern champions like Tadej Pogacar (who just won his fourth Tour de France) outperform even the stars of cycling's notorious doping era—not because of performance drugs, but because of rigorous attention to the math: specifically, maximizing their power-to-weight ratio, measured in watts per kilogram. With every top rider now using advanced power meters, cyclists can perfectly calibrate effort and pacing. In this year's Tour, Pogacar hit 7 watts/kg on a major stage—higher than Armstrong's peak—demonstrating that precise, data-driven management is the new edge.

The parallel for venture capital? VC is also about the math. Successful funds obsess not over hype, but two things: high ownership in outlier companies. The fundamentals of venture math are broken down:

- Venture Arrogance Score: Big funds need to capture a massive share of startup value creation to hit targets—often unrealistic in a mature, competitive market.
- Ownership & Outliers: Return multiples come from holding meaningful stakes in rare, massive winners. The power law rules: most companies return little, a tiny few drive almost all profits.
- Reserves & Recycling: Protecting ownership (reserves) and smartly recycling capital are key levers for long-term performance.
- Small Funds' Edge: Historical data shows sub-$250M funds consistently outperform mega-funds in terms of IRR and multiples, due to alignment and the ability to take early, high-upside risks.

Bottom line: Just as cycling success hinges on disciplined number management, lasting VC returns demand rigorous portfolio math—focus on ownership, hunt outliers, and mind the fundamentals behind every investment decision.

Read the full Article here.