

The Scale of Ownership: Why Fundamental Innovation Can't be Rented

Software expands to fill its container. Like gas, it grows to exploit capability and respects constraint. Features don't exist in isolation; each advancement is bound by computation, cost, and accessibility.

We saw this clearly in computer graphics. In 1999, Pixar created stunning visuals using massive server farms, while PlayStation and Nintendo 64 games were limited by modest home hardware. The gap wasn't creativity. It was the physical limits of what local machines could process in real time without breaking the budget. Real-time rendering had to happen on-site and instantly, without relying on expensive external infrastructure. Renting wasn't viable for mass consumer use.

AI now faces the same challenge. The most capable models live in remote clouds, delivering impressive results at substantial cost. But the cost isn't just financial. The reliance on far-off servers introduces hesitation and friction, making every use feel uncertain. Imagine if mobile games charged users per frame rendered. That industry would never have existed. It scaled because rendering became effortless and free, powered by GPUs that users already had in their pockets.

Fundamental innovation scales only when technology is owned, not rented. Ownership collapses marginal cost. It removes the psychological toll of paying per use. Developers build without restraint. Users experiment without thinking twice. That freedom is what unlocks exponential growth.

This isn't to dismiss utilities like bandwidth or storage. These work precisely because they are consistent, available, and cheap enough to fade into the background. But when services shift from commodity to premium product, they introduce friction. Rent-seeking models pile on cost and scrutiny, which kills exploration before it starts.

Consider AI's trajectory; it's bottlenecked by providers that charge for every inference. That pay-per-use model discourages iteration. If inference is ever to scale like mobile graphics did, it must run on consumer devices and feel immediate, reliable, and nearly free. Just as local GPUs powered a gaming revolution, local AI will spark something even bigger.

Of course, renting can help in the early stages. It opens doors when resources are scarce. But that's only a stepping stone. True exponential scale, widespread democratization of innovation, occurs only after infrastructure shifts from rented pipelines to owned utilities.

Software doesn't respond to theoretical limits. It adapts to what people can actually afford, control, and get their hands on.

The future of innovation cannot be sustainably built on rented ground. Ownership isn't merely preferable—it's essential. The container software must fill is the one each of us already owns.