We Spent a Decade Building Virtual Worlds — What We Discovered Could Reshape the Future of Business

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Over the past decade at Improbable and now with Somnia, I have worked on solving some of the hardest problems in the new digital age. We've learned a great deal from powering massively multiplayer video games, immersive virtual events and defense simulations so sophisticated they got me sanctioned by Russia…

But in the process of building tools for virtual worlds, we discovered something far more foundational: The infrastructure we needed for the metaverse turned out to be exactly what businesses need to operate in the AI era.

Like many, we expected that the surge of interest in the "metaverse" in 2021 would be a tipping point. After all, we'd been working on persistent virtual spaces since 2012. But the deeper we got into the problem, the more we realized the infrastructure wasn't ready. Virtual worlds that allowed thousands of people to move freely across different platforms with their identity and assets intact simply weren't feasible with existing systems.

Blockchain, on paper, offered the right ingredients: user ownership, decentralized control and the ability for different developers to build on shared standards. However, when we tried to use it for real-time interaction, it collapsed under

the weight. These systems were too slow, too expensive and entirely unsuited to applications that needed responsiveness.

Imagine trying to run a Zoom call where every frame of video had to be verified by thousands of computers before it could appear on screen. That's what we were dealing with.

Eventually, we faced a choice. Either continue building applications on infrastructure that couldn't support them – or build the infrastructure ourselves. What we ended up creating, Somnia, started as a necessity for gaming. But it has become a blueprint for how business will operate in a future shaped by artificial intelligence, digital identity and real-time interaction.

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The new demands of digital business

Three trends are colliding to reshape how modern organizations operate. First, AI is no longer just a chatbot; it's an actor. Agents powered by large language models are starting to participate in digital ecosystems. In our testing, we've seen AI agents generate thousands of transactions per second simply through their interactions with each other and with users.

Second, digital ownership is shifting from a niche crypto concern to a mainstream expectation. People increasingly want control over their digital identities, possessions and reputations – and they want these assets to persist and travel with them.

Third, businesses are shifting from transaction-focused to relationship-focused models, where continuous engagement in digital environments drives loyalty and growth.

The infrastructure to support this convergence didn't exist. So we built a system that could process over one million transactions per second, about 20,000 times faster than

traditional blockchain systems. To put this in business terms: Imagine the difference between a corner store that can serve 50 customers a day and a Walmart Supercenter that can serve 50,000.

Beyond gaming: Business applications and cultural impact

This leap in performance has implications that go far beyond gaming and drive real business outcomes. Retailers can track inventory changes across thousands of stores in real-time for a fraction of a penny per update. Manufacturers can build secure, verifiable supply chains that don't compromise speed. Financial institutions can process compliance checks, document verification and settlements with both transparency and efficiency.

But the bigger shift is cultural. As AI begins to automate routine tasks, we are entering what I call the "Fulfilment Economy," as mentioned in my book *Virtual Society: The Metaverse and the New Frontiers of Human Experience*. This is not just about productivity. It is about meaning. People are looking for purpose, community and creativity in the digital environments where they now spend increasing portions of their lives.

AI helps by saving time and taking on the burden of process, allowing us to focus our energy on more valuable activities. These environments go beyond entertainment. They are places of work, collaboration, identity and economic activity. In many cases, AI agents will participate alongside us.

For businesses, this presents a strategic shift. When your users don't just consume your products but contribute to and build on your platform, your role changes. You're no longer just a provider; you're a host. Your brand becomes part of an ecosystem — one that thrives on participation, portability and

interaction. Supporting this shift requires infrastructure that can scale in real time, preserve ownership across environments and connect disparate platforms into a single seamless experience.

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What comes next

Most business leaders aren't thinking about blockchains, consensus algorithms or transaction throughput — and they shouldn't have to. What matters is whether your company is ready for a world where intelligent agents transact alongside humans, where users carry persistent digital identities between services and where engagement happens in real time, not just during scheduled interactions.

The hype cycle around the metaverse may have passed, but the vision of shared, persistent, intelligent digital environments is more relevant than ever. What started as a solution for virtual worlds is now becoming the foundation for how businesses will deliver value in an interconnected, AI-driven future.

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