QUANTUM KIDS

A collaboration between Google Creative Labs and researchers at Caltech's Institute for Quantum Information and Matter has enabled a rare educational interaction between quantum mechanics researchers and gaming kids via the video game Minecraft. The popular game, downloaded more than 30 million times worldwide, allows players to freely build and create their own world by mining and stacking different types of bricks in a sandbox-like environment (left). In October, the team—along with educational partner MinecraftEdu—unveiled an add-on, or "mod," called qCraft. It allows Minecraft players to add special blocks to their environment that display several high-level quantum principles—the physics that governs the behavior of matter and light at the atomic (and subatomic) scale—including observational dependency, superposition, and entanglement. Utilizing the game's capabilities for superposition—the principle that allows particles to occupy more than one state at the same time—a number of enthusiastic users have even replicated Schrödinger's notorious simultaneously-dead-and-alive cat. —*JSC*