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Pictures of Lily (11/9/94)

The *Scientific American* suggests in their latest piece on "Virtual reality: bullshit or not?"[1] that an adequate representation of the phenomenal world might require drawing 800 million polygons a second. Since they also estimate 10 frames per second, this sounds relatively low; Douglas Trumbull did physiological experiments when he was devising the IMAX format and found a peak rate of audience drool (or whatever) at 60 fps in 70 mm. — Literally there is some kind of reality threshold related to the frame rate here; he says that though you can shoot something like a travelogue in this format, you can't shoot a movie, because it loses the dreamlike quality.[2] — I'd have to see this demonstrated to be certain, but it sounds plausible. So actually reality is 4.8 billion polygons per second, and silent daydreams are 1.92 Gpps. — Obviously this exceeds the bandwidth of any existing video data bus, at least for the time being.

None of this represents the real problem, of course. The real problem is that any robotic feedback device strong enough to simulate the resistance of a table when you slam your fist down upon it is strong enough to break your arm. This means (I rephrase the editors slightly) that the beta versions will put people in the hospital, with annoying legal consequences.

As always they understate the case. The first time a virtual blowjob rips somebody's dick off, the tabloids will go bonkers. — Or, to put it another way: the problem isn't with slamming your fist down on the table; it's with slamming Traci Lords into the headboard.

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[1] I paraphrase.

[2] Confirmed later by Peter Jackson's peculiar decision to shoot the *Hobbit* trilogy in 48 fps; this was one of many reasons I found the films unwatchable.