

**HOT**  
C H I P S

**The 11ers**

# Platform Performance

Dan Wexler, CxO The 11<sup>ers</sup>

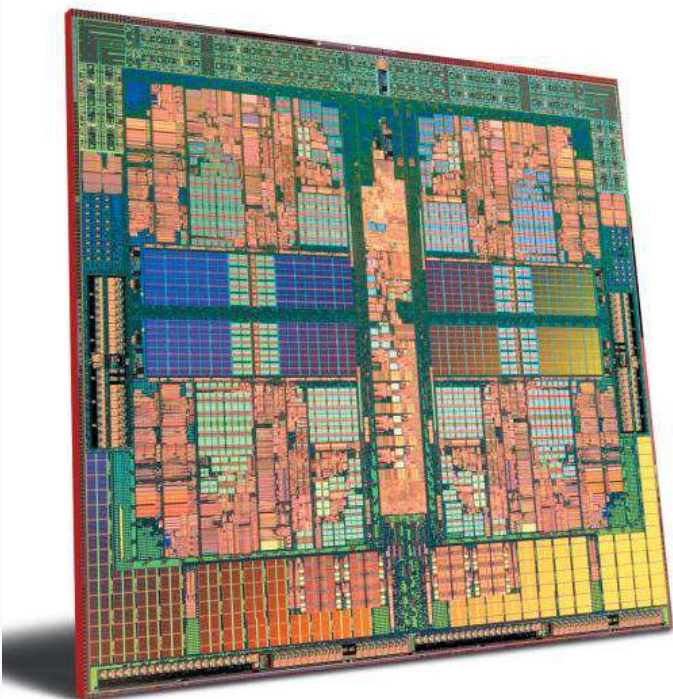


**Hot!**  
**Sell More ^ Chips**

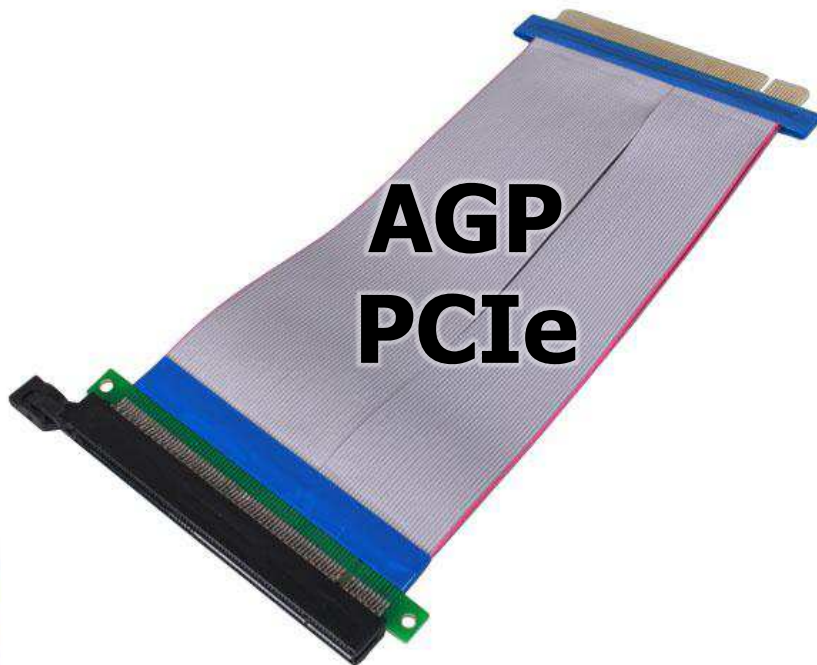


***Prosumer Apps***

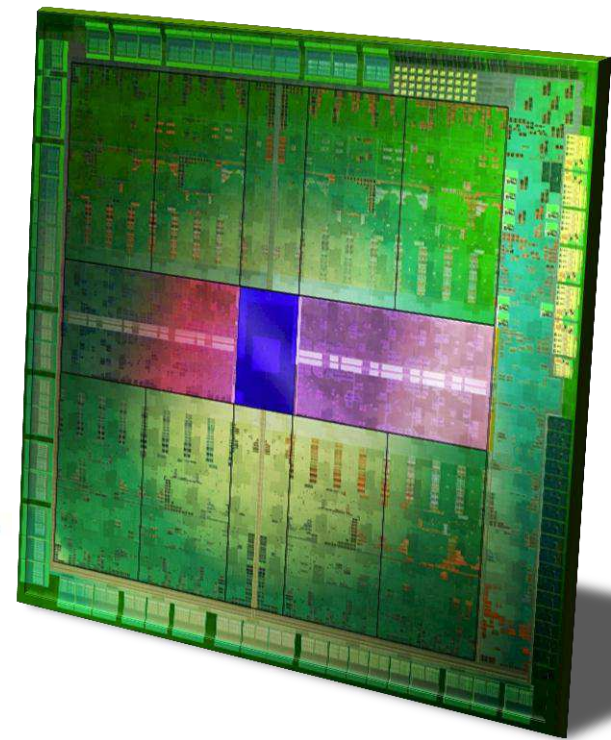
**CPU**

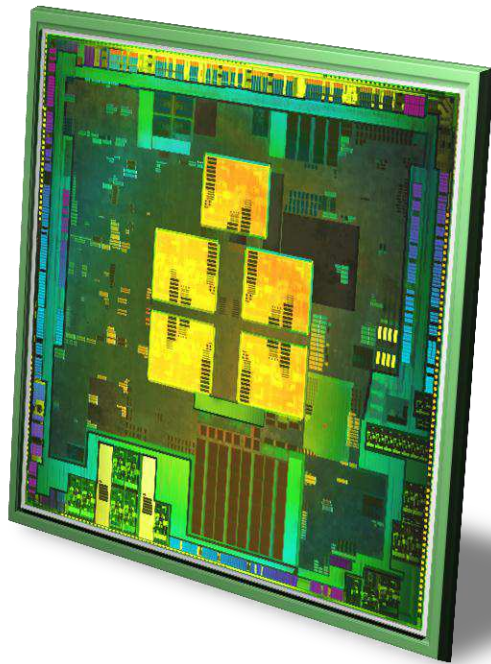


**AGP  
PCIe**

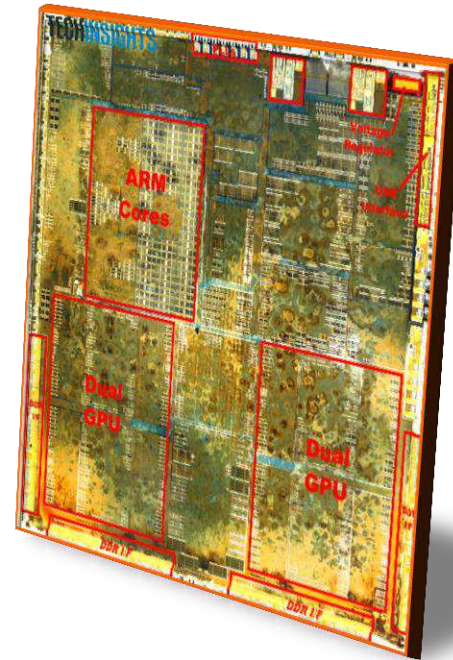


**GPU**

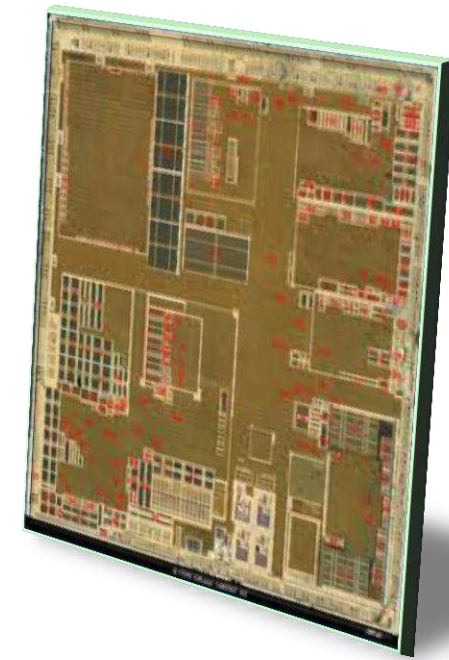




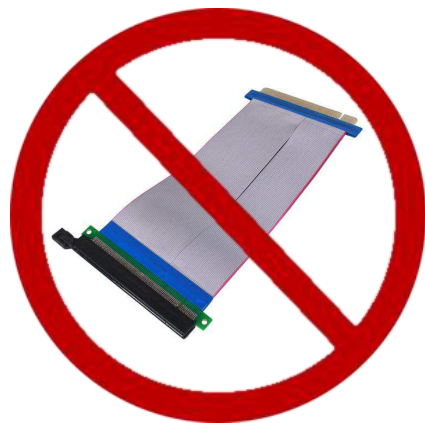
**Tegra**



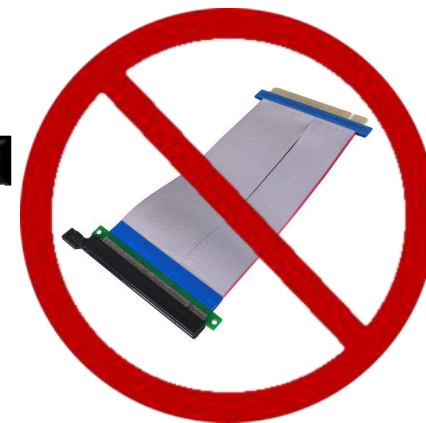
**Apple**



**Snapdragon**



**Power**



# The 11ers

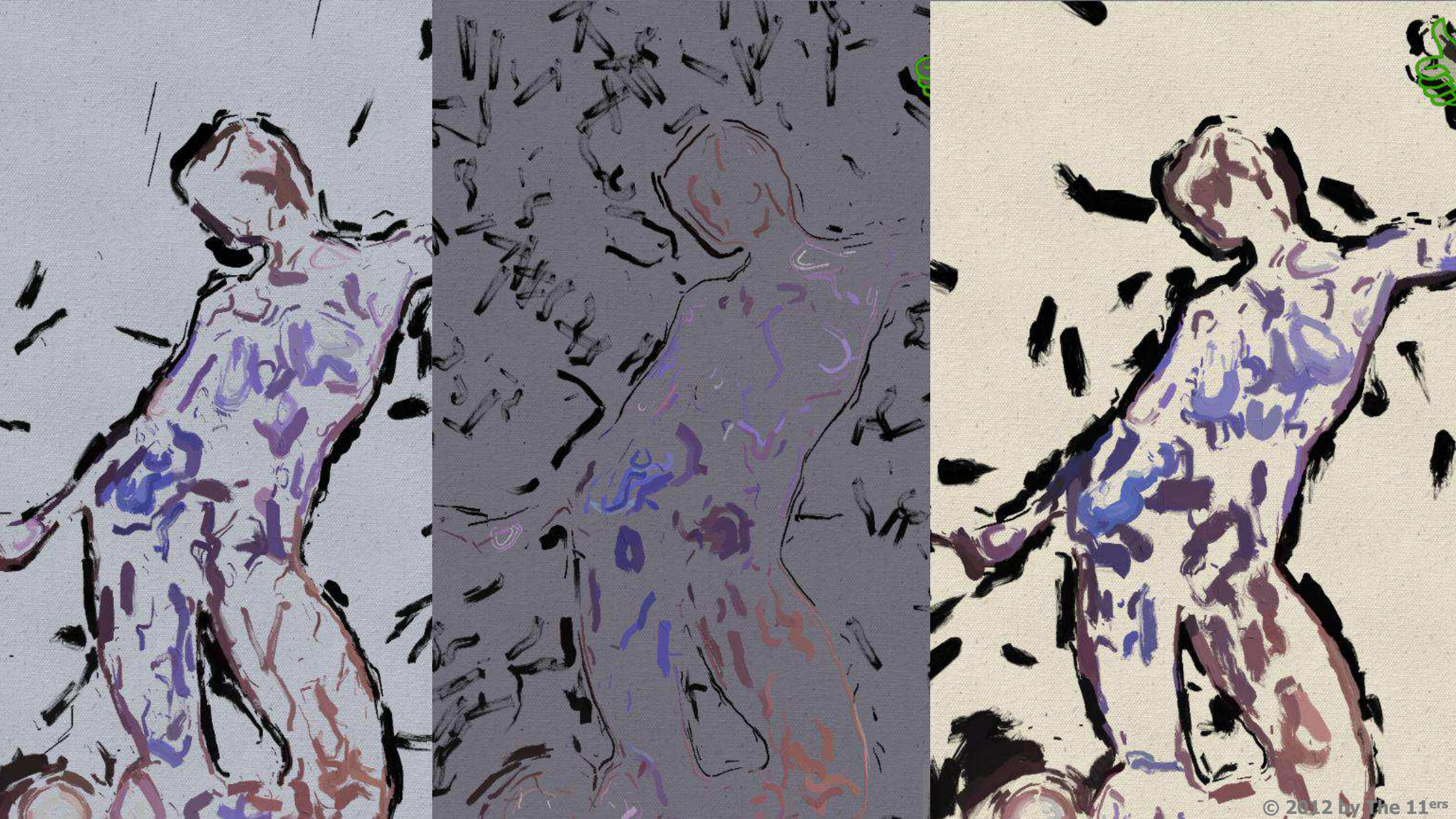
**“Leading edge graphics in tasty mobile bytes.”**

**Small Scope → Low Risk → Experience**

# Glaze





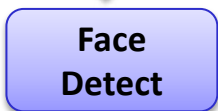




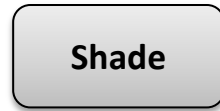
# Dynamic, Dependent, Reusable

No Vertex Texture! ☹️ 5x Perf & TAM!

**CPU**

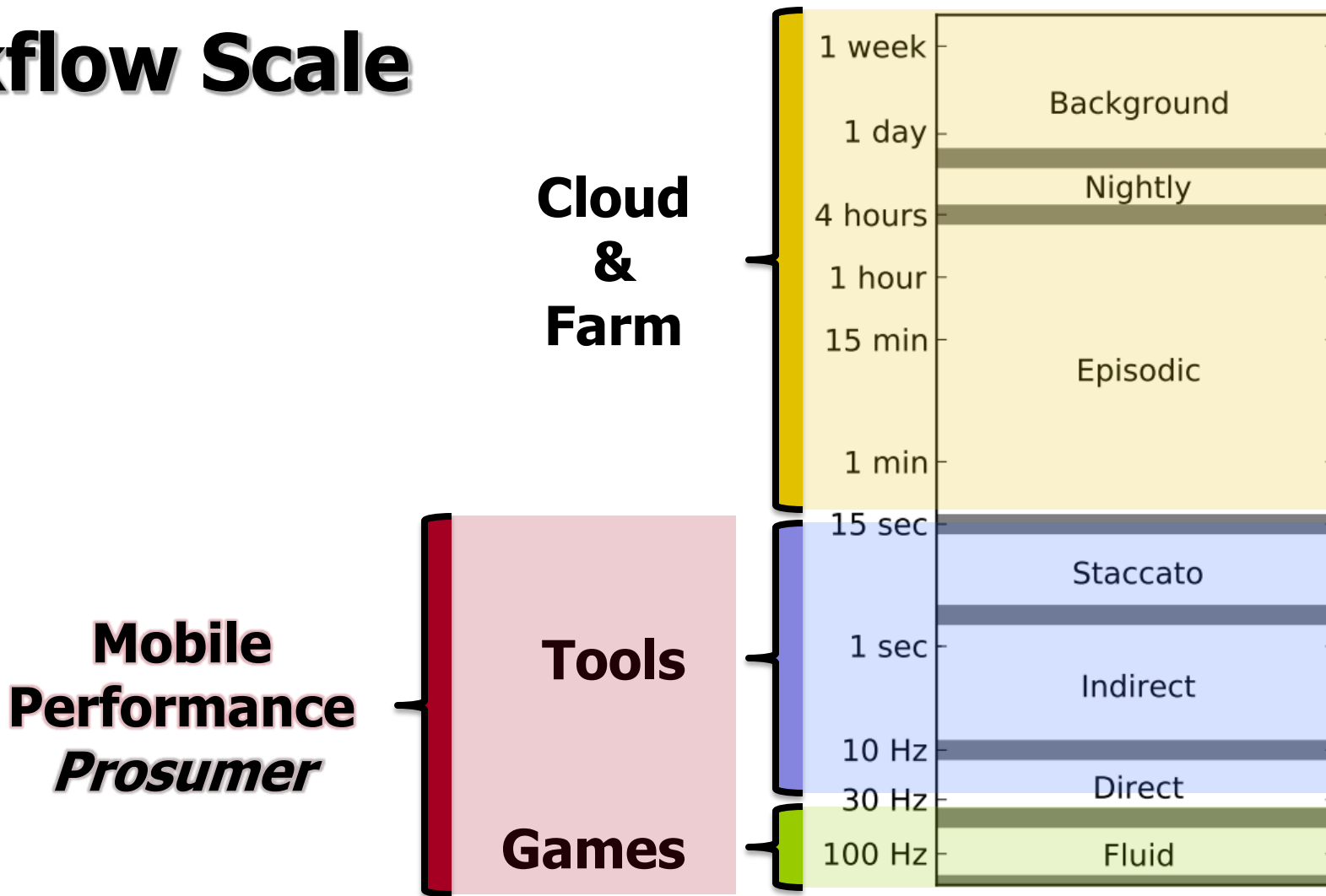


**GPU**





# Workflow Scale



Enderton & Wexler, "The Workflow Scale: Why 5x Faster Might Not Be Enough", CGI 2011

# What's Shared Memory?

- No copies (OpenGL API forces copies)
- Simplified synchronization (map/unmap, fence, cache flush)
- Shared virtual address space (segmented ok)
- Texture instead of attributes? (Why VAR failed?)  
Must be able to dynamically generate geometry on GPU and CPU (☺ GLES3)
- Gosh, it would be really nice if pointers Just Worked™
- Shared memory uses *less power & less bandwidth*



# Leapfrog Opportunity



Thanks to Cass Everitt, Eric Enderton

# Panel Session

- **Sean Mao**
  - VP Marketing, Advanced Imaging Technologies, ArcSoft
- **Itay Katz**
  - Co-Founder & CTO , Eyesight
- **Ben Blachnitzky**
  - Director of R&D, Metaio
- **Jim Steele**
  - VP Engineering, Sensor Platforms
- **Daniel Wexler**
  - CXO, the11ers