



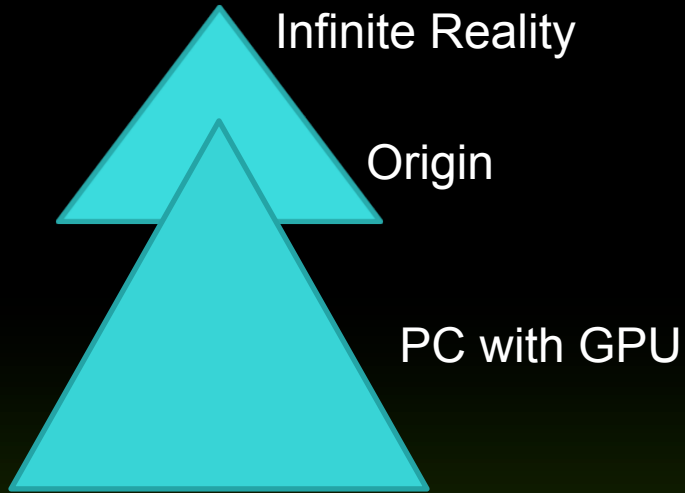
# Projections about the mobile revolution

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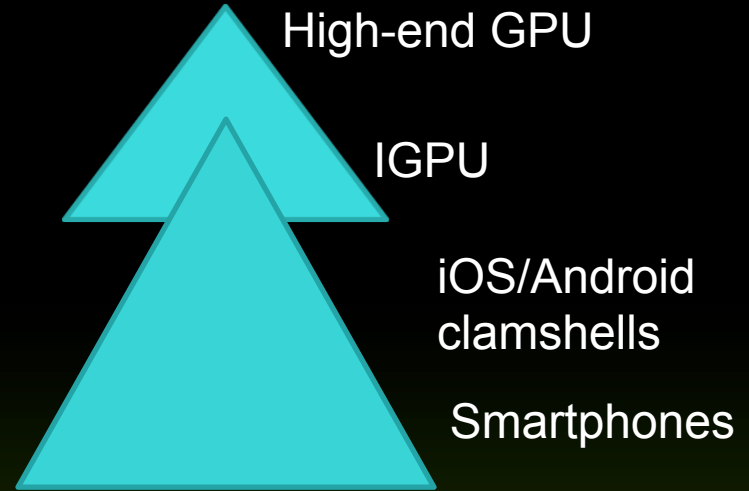


# Mobile vs. PC graphics revolutions – is history repeating itself?

## PC revolution (1997-2000)



## Mobile revolution (2011-?):



# Similarities

- **Expensive incumbent undercut by ubiquitous, lower-cost competitor**
- **New platform offers new capabilities**
  - **PC: personal graphics experience, consumer networking**
  - **Mobile: location-aware, wireless networking**
- **Huge developer support for new platform**

# Differences

- **Performance equality:**
  - PC revolution brought economies of massive scale – was able to equal and eventually beat workstation perf
  - PCs/consoles are already at massive scale.
  - Mobile revolution has 1-2 order-of-magnitude power disadvantage
- **User-interaction**
  - PCs and workstations used same displays and user interface
  - Mobile devices have smaller screens and new types of user interaction

# Predictions

- **Mobile devices can't replace desktop devices for two reasons:**
  - Immersive environment (unless eye-glass or head-mounted displays greatly improve)
  - Power disadvantage (but eventually mobile devices will be “good enough”)
- **Both platforms will continue for the foreseeable future**
  - Mobile will be broad and PCs will increasingly become niche
  - Much sharing of technology across platforms

# Some notes about content

- **Content determines the success of a platform as much as the platform's raw capability**
- **3D console apps (XBox360/PS3)**
  - **Lots of great content**
  - **At brink of being supportable on mobile**
    - **But may require UI and LOD tweaks)**
- **Mobile apps**
  - **Most current mobile games are casual games, social, or strategy-oriented (only modest 3D)**
  - **Lots of developer traction and enthusiasm**
  - **Will thrive as hardware capability improves and APIs standardize**
- **Different breeds as long as user-interfaces differ**