Computer and Video Games: 

The Next Generation
Video And Computer Games: The Next Generation

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A Technical Perspective
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Video And Computer Games: The Next Generation

Evolution of an Industry

• From a hobby to a multi-$BILLION industry in just 3 decades

• Increasingly, computer entertainment drives new hardware and software innovations
Content is Key

• GFLOPS excites techies like me, but means little to the mass market
• It is creative content that makes this a business
• However, technology is an enabler to allow better expression of the creative concept
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Where Are We Now?

- For NTSC, we are approaching the point where images are not obviously computer generated
  - The player finds it easier to be immersed
  - As barriers fall, the market grows
  - But, there is a lot more to do than push polygons
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Where Are We Going?

• The future is being driven by changes in the complete interface between the player and the computer entertainment system
• Audio/Video input is more natural than keyboard and mouse
• Broadband networks open up new possibilities
• HDTV pushes graphics still further
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Research Directions

• Beyond 3D graphics realism is stylized rendering (NPR)
• Simulation of the natural world (Physics)
• More “intelligent” computer generated characters
• What we do now is cool....

What we will do is amazing!