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Course: MA3DCA
Title of Research: Creating emotions using shape animation
Presentation Method: Poster

Abstract:

My investigation area for my personal inquiry was about generating convincing expressions using shape animation. The intention was to learn and achieve basic human emotions in the cartoony dog head model in an anthropomorphised /caricatured way using shape animation. Understanding the mechanics of the face generating different emotions like sadness, happiness, anger, shock etc throw considerable challenge. Blend shapes are one of the cheaper yet most useful ways of creating emotions.

Annotated list:

(1) Plutchik, R., 1980, *Emotion: Theory, research, and experience: Vol. 1. Theories of emotion*, **1**, New York: Academic.
This source is one of the best sources graphically exploring and explaining the relativity in emotions and its complexities. As my inquiry was based on emotional expressions i needed the in depth information on the subject and this helped a lot.

(2) Osipa, j., 2007, Stop *Staring,* 2nd ed. Indiana: Wiley Publishing Inc
This book is one the most referred book on the subject of facial modelling and animation .It was quite helpful in my understanding and creating of the face modelling, understanding the topology and creating the basic blend shapes.

(3) Haber, j. Terzopoulos, D., 2004. *ACM SIGGRAPH 2004 Course Notes*. New York: ACM. Available from: http://portal.acm.org/citation.cfm?id=1103900.1103906 [Accessed 10 May 2010].
Very precise and comprehensive source explaining the history and origins of face modelling and animation to the contemporary scenario.

(4) Joshi,P.Tien, W. Desbrun,M. Pighin,P.,2003, *Eurographics/SIGGRAPH Symposium on Computer Animation* . New York: ACM. Available from:http://portal.acm.org/results.cfm?coll=GUIDE&dl=GUIDE&CFID=88280168&CFTOKEN=68893835[Accessed 02 May 2010].

(5) Cosker, D. Borkett, R. Marshall, D. Rosin, P., 2008 .*Towards automatic performance-driven animation between multiple types of facial model.* IET Computer Vision. Available from: http://www.ietdl.org/IET-CVI[Accessed 20 April 2010].

(6) Chuang , E .Bregler,C., *Performance Driven Facial Animation using Blendshape Interpolation graphics.* Stanford University. Available from: *http://graphics.stanford.edu/~echuang/face/report2.pdf*[Accessed 03 May 2010].
Above sources were research papers which helped me to understand the application of blend shapes/shape animation in different areas like motion capture etc.

(7) Disney,W.,Pluto's model sheet .Available from: http://animationarchive.net/Classic%20Characters/Pluto/Model%20Sheet/Plutomodelshee t.jpg[Accessed 20 April 2010].
To study Cartoony dog expressions