Thaumatrope

1857

Appeared in the US in the Century

Invented by William Fitton (1834)

Images merge when disk was spun with a central string on one side, cage on the other.

A two-sided disk (first on 1826)

Phenakistoscope

Joseph Antoine Ferdinand Plateau (1832)

Also Simon Father von Stampfer -

Stroboscope

George Horner (1834)

17th Century

Magic Lantern

Early Efforts

Phenakistoscope (1826)

Polyrhema Panoptique (1860)

Zoetrope (1834)

Thaumatrope (1857)

Flipbook
Based on Daguerre's from day to night
The pictures change in the top and back opened and closed
When doors are opened

Praxinoscope

Forms Works-Disney Commercial Artist with
Walt Disney

1918:

Based on Daguerre's from day to night
The pictures change in the top and back opened and closed
When doors are opened

Praxinoscope
Traditional Animation

Film Animation History

- 1995 Pixar. Toy Story, full-length CG film
- 1988 Pixar. Toy Story
- 1969 Disney. Alice in Wonderland
- 1928 Walt Disney. Mickey Mouse
- 1923 Walt Disney. Alice in Wonderland

Alice films, which...
3D Animation (Keyframing)

Keyframing Styles

Cartoon Laws of Physics

The illusion of life

Principle of Traditional Animation

• Appeal
• Secondary action
• Size
• Shape
• Timing
• Follow through and overlapping action
• Exaggeration
• Anticipation
• Slow and still
• Speed and stretch
Motion Capture

Holographic Motion Capture, 1882

3D Animation (Keyframing)

Issues

• Not real-time
• Time consuming
• Nudging character
• Scopable control over motion

Mylunbridge

Animation Sources

User

Algorithm

mocap

Blend Shapes
Mori’s “Uncanny Valley”

Motion Capture

Issues

- mocap scaling
- building mocap data
- annotation of data
- data cleanup
- data compression

- photoreal anim

Ultrasound

Video