

→ Final Paper

- ↳ end of day Dec 81
- ↳ incorporate feedback left on Proposal
- ↳ animations are NOT published
 - ↳ they are released or aired.
- ↳ grammar is quite important.
- ↳ cite references at end and in text
- ↳ Google Scholar

→ Technological Challenges and Standardization

↳ Early Days of Cinema:

- ↳ Perforation
- ↳ Frame Rate/Projection Speed
- ↳ Film Stock Size
- ↳ Exhibition Formats
- ↳ Sound Systems
- ↳ Color Systems

↳ Early Days of Computer Graphics:

- ↳ Usability
- ↳ Cost
- ↳ Speed
- ↳ Compatibility of Systems
- ↳ Access
- ↳ Transition to Digital

Development in CG
was not due to the
singular efforts of
researchers/scientists,
but was due to a myriad
of forces working together

Mary Ellen Butz (1906-1983)

- ↳ made films w/ war forms

John Whitney Sr. (1917-1995)

- ↳ worked w/ brother (James Whitney)
- ↳ designed stargate corridor for 2001: A Space Odyssey (1968)
- ↳ Arabesque (1963) most influential abstract animation
- ↳ Influenced by Oskar Fischinger and Norman McLaren

John Whitney's first computer was converted from a war machine

Bell Laboratories (1925-1980s)

- ↳ distinguished history in creation of digital arts
- ↳ created first computer generated singing voice
- ↳ boundary became art and science became fuzzy

Lillian Schwartz

Westworld (1973) became first feature film to use computer generated animation

Ken Knowlton

Stan Vanderbeek Apple created first VR File Format in 1995

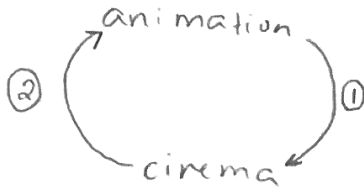
Bell Labs created the first music software in 1957

Peter Foldes (1923-1977)

- ↳ Metadate and Hunger (1971)
 - ↳ revolutionary
 - ↳ almost looks like vector animation
 - ↳ frames morph into next frame

Animation = Visual Effects + CGI Evolution

↳ Computer Generated Imagery



The Rise of Pixar

↳ CGI:

↳ a general description of animation created using computers

↳ What Makes CGI special:

↳ all made up

↳ hasn't always been accessible → changing now

↳ Rise of Computer Graphics Tech:

↳ SIGGRAPH

↳ founded in 1969

↳ DykstraFlex Camera → 1977

↳ preprogrammed paths

↳ Star Wars

↳ Able to digitize optical printing

↳ Raytracing

↳ Early Motion Tracking

↳ Brillianna in 1984

Tron → 1982

↳ tech marvel

John Dykstra (1947-)

↳ DykstraFlex Cam

George Lucas (1944-)

↳ Lucasfilm (1971)

↳ created ILM (1975)

↳ THX (1983)

Ed Catmull + Ray Alvy Smith

↳ Graphics Group of ILM

↳ created Pixar Computer

↳ selling tech to hospitals

↳ Financed by Steve Jobs (1986)

Pixar

- ↳ Pixar Image PC released in 1986
- ↳ Caps → computer animation production system)
- ↳ Young Sherlock Holmes → 1975
 - ↳ earliest example of 3d Char. in real background

John Lasseter

- ↳ inappropriate behavior towards women
 - ↳ Cal Arts Character Animation
 - ↳ Hired by Disney
 - ↳ Wild Things Test → 1983
 - ↳ Pitched idea of 3d Brave Little Toaster
 - ↳ Shorts
 - ↳ Andre and Wally B. (1984)
 - ↳ Luxo Jr. (1986)
 - ↳ Red's Dream (1987)
 - ↳ Tin Toy (1988)
- Tech was invented for these shorts

Toy Story

- ↳ Pixar stopped becoming a computer company
- ↳ First entirely CGI
- ↳ Procedural Textures
- ↳ Story driven by tech
- ↳ modeled chars in clay, scanned points, and created a mesh from that point

Pixar combines "spectacle of technology" with "emotional value of the story"

Growth of CGI as Special Effects

1. Star Wars
2. Tron
3. Terminator 2

Artistic Expression in CG Anim

↳ Destino (2003) by Dominique Monféry

Chris Landreth (1961-)

↳ Ryan (2004)

↳ aged well

↳ use cords or algorithms to model

↳ very psychedelic

↳ mimics the experimental style of Landreth's subject.

Ed

Pin...