The Computer Age

- Computer Art
  - The cultural debate
    - Vannevar Bush: “As We May” (1945)
    - George Orwell: Big Brother (1948)
    - Norbert Wiener: “Cybernetics” (1948)
    - John von Neumann: "The general and logical theory of automata" (1948)
    - Alan Turing: “Computing Machinery and Intelligence” (1950)
    - John McCarthy: artificial intelligence (1956)
    - J.C.R. Licklider: "Man-Computer Symbiosis” (1960)
    - Manfred Clynes and Nathan Kline: “Cyborgs and Space” (1960)
    - Morton Heilig: the Sensorama (1962)
    - Roy Ascott: "Behaviourist Art and the Cybernetic Vision“ (1964)
    - SRI Intl: Shakey the Robot (1966)
    - Douglas Engelbart: The mother of all demos (1968)
The Computer Age

- **Computer Art**
  - The cultural debate
    - Phillip Dick: "Do Androids Dream of Electronic Sheep" (1968)
    - Stanley Kubrick: "2001 A Space Odyssey" (1968)
    - Dennis Ritchie and Keith Thompson: UNIX (1968)
    - DARPA: The Arpanet (1969)
    - Edward Lorenz: "Does The Flap Of A Butterfly's Wings In Brazil Set Off A Tornado In Texas?" (1972)
    - Ray Tomlinson: Email (1972)
    - Rainer Werner Fassbinder: "Welt am Draht/ World on a Wire" movie (1973)
    - Xerox: the Alto (1973)
    - Richard Dawkins: the meme (1976)
    - Ars Electronics (1979)
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- Computer Art
  - The cultural debate
    - The Usenet (1980)
    - John Badham: "War Games" movie (1983)
    - Bruce Bethke: "Cyberpunk" (1983)
    - MIT Media Lab (1985)
    - Toshiba T1100, the first mass-market laptop (1985)
    - Lucasfilm: online game “Habitat” (1985) and “avatars”
    - Per Bak: "Self-organized criticality” (1987)
    - Chris Langton: “Artificial Life” (1987)
The Computer Age

- **Computer Art**
  - The cultural debate
    - Vernor Vinge: the singularity (1988)
    - Adobe Photoshop (1990)
    - Linus Thorvald: Linux open-source operating system (1991)
    - Neal Stephenson: the metaverse (1992)
    - Wired magazine (1993)
The Computer Age

• Computer Art
  – The cultural debate
    • SixDegrees social network (1997)
    • Napster (1999)
    • Philip Rosedale: Second Life (2003)
    • Nintendo Wii (2006) that transforms the player’s physical movements into movements in the game
    • Apple iPhone (2007)
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• Computer Art
  – Prehistory
    • Ben Laposky (1914, USA)
    • Herbert Franke (1927, Germany)

“Lichtformen” (1955)

“Oscillons” (1956)
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• Computer Art
  – Two main centers of computer art activities: Bell Labs and Technische Universitat Stuttgart,
  – 1960: Desmond Paul Henry’s Drawing Machine
  – 1963: First public showing of computer art: San Jose State University
  – 1965: Generative Computergrafik exhibition at the Technische Hochschule in Stuttgart
  – 1966: Billy Kluver’s interdisciplinary program Experiments in Art & Technology
  – 1968: Cybernetic Serendipity exhibition in London
The Computer Age

- Computer Art
  - Sonya Rapoport (1923, USA)

Brown (1975)

“Shoe Field” (1986)
The Computer Age

• Computer Art
  - Harold Cohen (1928)

Images created by the program AARON (1979)
The Computer Age

- Computer Art
  - Paul Brown (1947)
  - Robert Edgar (1951)

"Memory Theater" (1985), computer implementation of a memory theatre, designed like a three-dimensional adventure videogame in which the "user" is able to move from room to room to "interact" with the artist's network of images and texts
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• Computer Art
  - David Em (1952): computer graphics
    - “Nora” (1979)
    - “Aku” (1977), a navigable computer world
    - “Transjovian Pipeline” (1979)
    - “Nora” (1979)
This is a chapter in piero scaruffi’s “A Visual History of the Visual Arts”: http://www.scaruffi.com/art/history