

◊ Introduction

◊ Syllabus (to be determined)

Exploring connections to

◊ Game Theory

→ Signaling Games

◊ Privacy, Anonymization and Distributed Computing

→ Virtualization; Graph Th.

◊ Economics

→ Payment Systems,
Auction,

Cryptocoins.

◊ Statistical Inference

→ Data Science,

Machine Learning

Graph Theory / Linear Algebra

◊ Applications:

→ Healthcare

→ Finance

→ Advertisement

→ Data Markets

Entrepreneurship.

Job creation → Social Goods
 Venture Capitalism → Market Liquidity
 Startups → Technological Innovation
 Accelerators/Incubators → Education
 Hardware/Platforms → Infrastructure.

A brief discussion on
 "The Innovators"
 Walter Isaacson.

HISTORY

1) Origin of Computing:

♦ Jevons, Leibnitz, Boole, Babbage
 → Ada Lovelace

♦ Vannevar Bush → Memex.

Norbert Wiener, Claude Shannon

John von Neumann.

♦ Alan Turing

Alonzo Church, Steven Kleene

John von Neumann.

♦ Howard Aiken,

Mauchly, Atanosoff

Eckert

2) Origin of Digital Computing

- ◊ Konrad Zuse (Z3) Electromechanical
- ◊ Atanasoff → Mauchly, Eckert
- ◊ Turing → Colossus
- ◊ ENIAC, EDVAC, ...

3) Origin of Programming

- ◊ Grace Hopper → Compiler
- Jean Jennings, Frances Bilas,
- Frances Holberton, Kay McNulty,
- Frances Spence Jean Bartik

4) Origin of Integrated Circuit (Transistor...)

- ◊ Bardeen, Brattain, Shockley.
- ◊ Robert Noyce & the Traitorous Eight.
- ◊ Gordon Moore & Moore's Law.
- ◊ Silicon Valley.
- ◊ Jack Kilby.

5) Origin of DARPA Net.

- ◊ J.C.R. Licklider
- ◊ Doug Engelbart.
- ◊ Paul Baran - Packet Switching
- ◊ Taylor & Robert ARPANET
- ◊ Cerf & Kahn - TCP/IP

6) Origin of Augmented Intelligence.

- ◊ Alan Kay - Alto SmallTalk.
- ◊ Jobs & Gates - Windows/Macintosh
- ◊ Berners-Lee, Andreessen
- WWW, Mosaic
- ◊ Page, Bryn - Google

7) Origin of Online Community

- ◊ Brand, Brilliant - The Well
- ◊ Steve Case - AOL
- ◊ Justin Hall - Web log - Blog
- ◊ Ward Cunningham - Wiki Wiki
- ◊ Jimmy Wells - Wikipedia

WHAT NEXT?

- ◊ Deception
- ◊ Privacy
- ◊ Economy