AI and Virtual Well-being

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FORTUNE

RESOURCES

NEW BEGINNING

TOWARD THE NEW FRONTIER

Mercantilism to Liberalism
"FREETRADE or WE SHOOT"

Capital flow New World – Europe

(Venice Arsenale protoindustry)
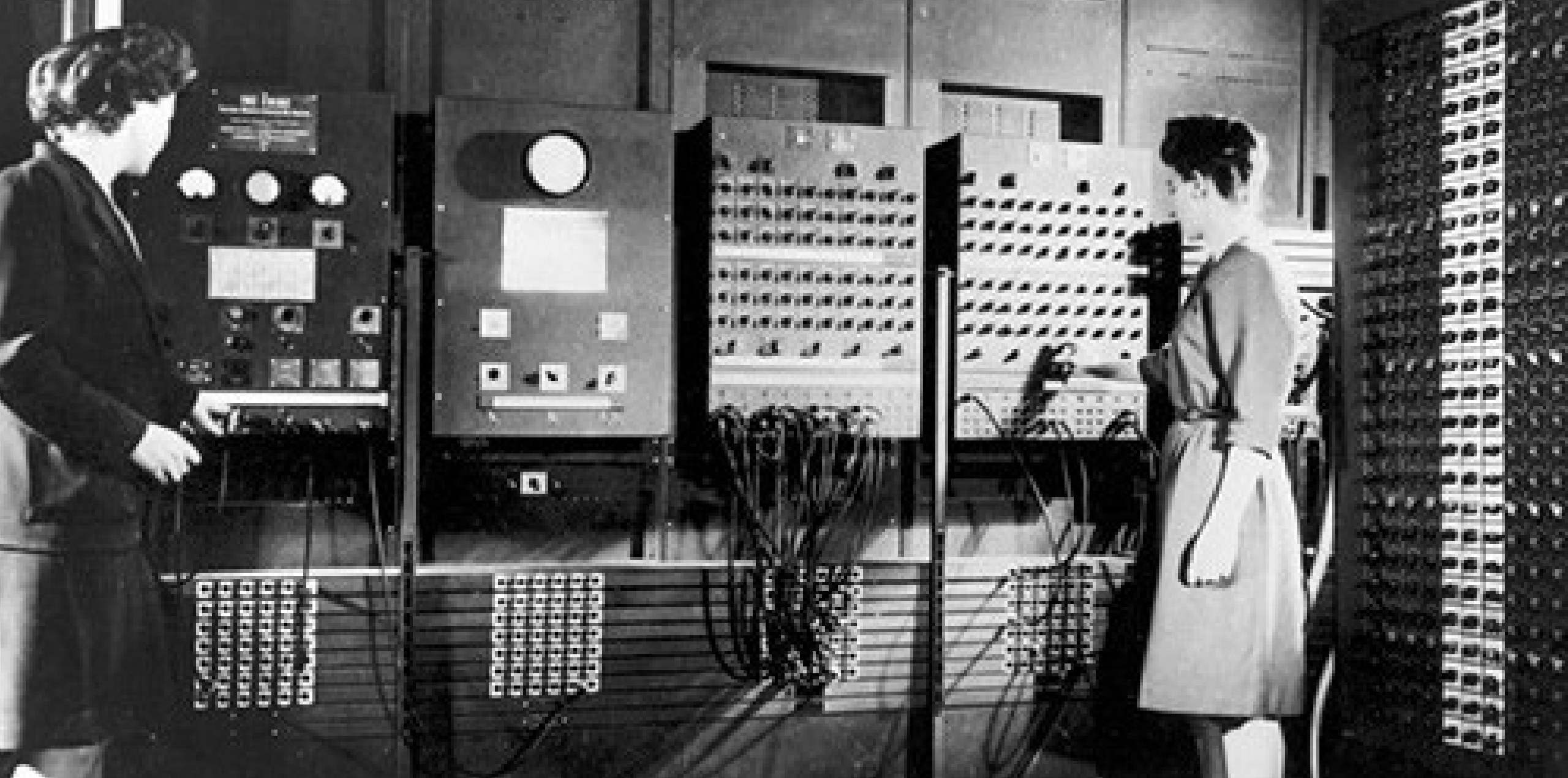
Globalization

Information network

Independent press

Linked financial markets (London, Paris, Amsterdam and Hamburg)

First Global Bubble 1720

Industrial revolution

2:1 Gap between the richest

and poorest regions of the world

(Antikythera mechanism, ancient computer around 87 BC)

The Myth of the Frontier stands for an endless ability to move toward the unknown in a quest for fortune, resources, or a chance for new beginning. The fifteenth-century Europeans used the oceans and stars as a communicative system to navigate their way into the New World. The precious metals from the South America had been brought in Europe to be monetized; the direct inflow of monetary metals caused revolution of prices in Spain and ruined the Spanish economy. On the contrary, capital circulation in the world-wide-trade gave burst to innovation and economic growth in continental Europe and England, which eventually led from Mercantilism to Liberalism, Industrial revolution, Globalization and First Global Bubble. Adam Smith's analysis of efficient division of labor in the needle factory (Wealth of Nations, 1776) inspired Gaspard Francois de Prony to apply division of labor to intellectual work. De Prony's organization triggered Charles Babbage's idea that simple mental work could be done by mechanic arithmetic machines (*Analytical Engine, 1837*). Division of labour enabled people to work within the network of week ties in virtual and phisical environments.

POST-HUMAN EVOLUTION

Division of labour - Week ties

The economy of time fragmented production in a way that individual endeavor became part of the systematic activity. Week ties connected humans into manufacturing networks

19th cent. Human-Computer
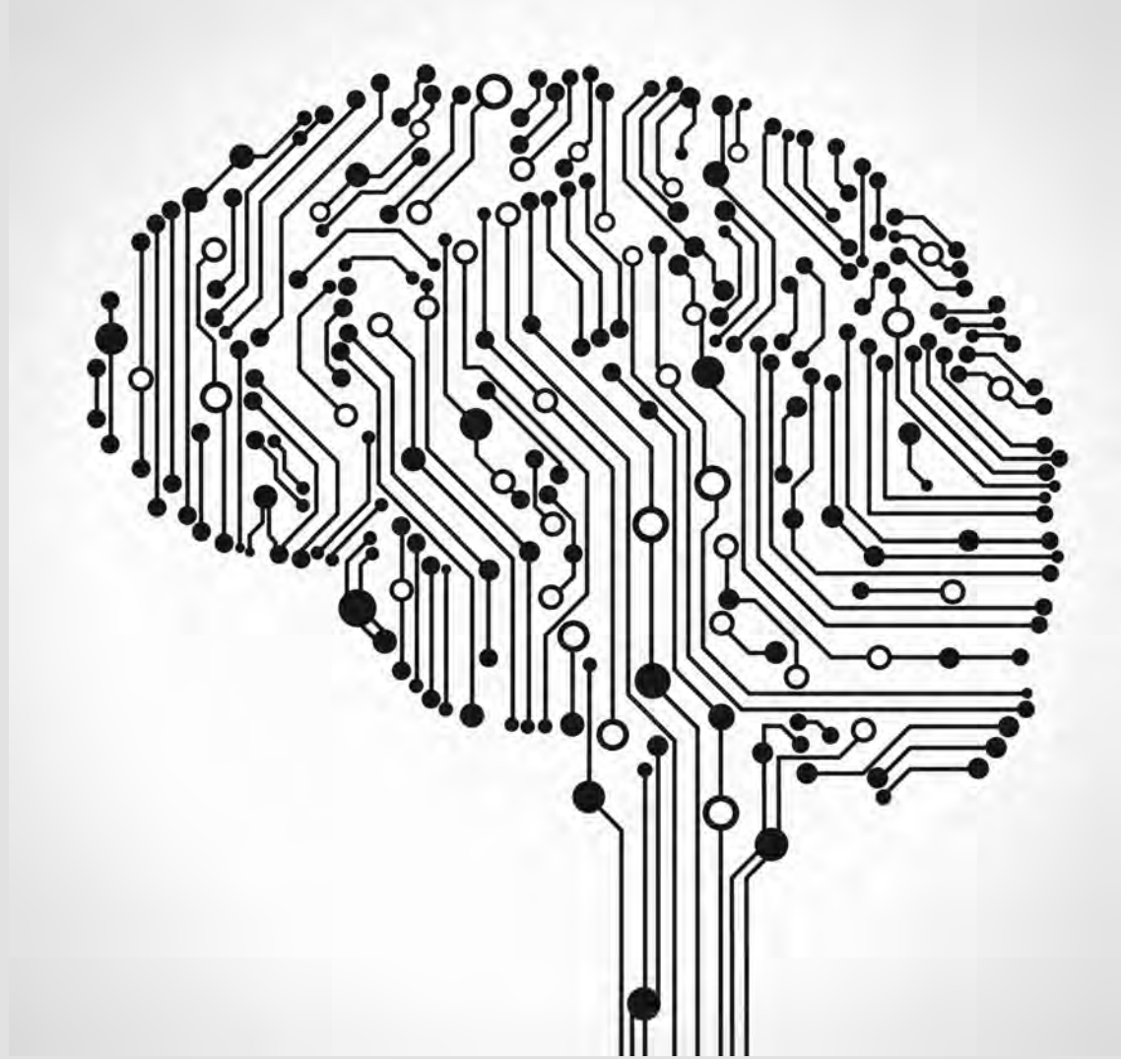low skill mathematician
in an observatory

20th cent. Computer-
Universal machine

21st cent. Human-Machine symbiosis

PROGRESS   EFFICIENCY   AUGMENTATION
    AUTOMATIZATION   PRODUCTIVITY

ENIAC Girls, Women Computers

Our Digital Walkabout, a rite of passage toward the Virtual Self, had not begun in a time of ENIAC, but in the 15th century during a quest toward the New Frontier. Human quest for productivity, efficiency and our ability to "improve our ability to improve" has lead cultural evolution from a nineteenth-century Human-Computer [a person who did calculations in observatory], to a twentieth-century Computer-Universal machine that manipulates our representation of reality [New Medium], to a twenty-first-century Human-Machine symbiosis [Post-human and Virtual Self]. Crucially important for the Cyber utopia and Information revolution were the affordability and accessibility of technology. The affordable personal computing emerged at the 1980s; the '90s was marked by the construction of "information superhighway"—a broadband fibre-optic network connecting homes and businesses. Information Frontier infrastructure was the precondition for the emergence of the global digital entrepreneurship, and creation of an online workplace accessible to international selfstarters. Since 2013, culmination of global mobile penetration had risen to 98%, which caused an evolutionary jump of always-connected multitude to the Post-human condition.

ELECTRONIC BRAIN

Is human taught entirely computable?
Is behavior reducible to
effective procedures?

Whether, by programming computers,
we become ourselves,
the object of programming and control.

LADY LOVELACE'S OBJECTION

*The Analytical Engine has no pretensions
whatsoever to originate anything. It can do
whatever we know how to order it to perform.
The engine, she explained, "can follow anal-
ysis; but it has no power of anticipating
any analytical relations or truths. Its
province is to assist us in making available
what we are already acquainted with."*

Lovelice, Note A, in Menabrea, „Sketch of the Analytical
Engine invented by Charles Babbage", translation and notes
Augusta Ada Byron King, reprint Scientific Memoirs 3, 1843.

Lady Lovelace's Objection objection reflects that we can make machine solve any problem whose solutions we can identify. Economic and scientific development of the general-purpose machine split into two major lines, the practical administration tools, and an artificial intelligence aiming to make computers smart. The cost-effective evolution has led to computerization of clerical and specialized work, creating an amalgam of Bureaucrat-Automata, and Expert-Automata. Ever since the Lady Lovelace's Objection, the debating topic had been the possibility of digital intuition, if there could be intelligent machinery [a term of Alan M. Turing] or artificial intelligence, as John McCarthy named it in 1955. For Turing, construction of intelligent machinery was the question of learning. The computerization and virtualization of society imposed the ascendancy of information over materiality. The systems are defined as informational. The feedback loops that run between an individual, a social system, a machine system, and the global ecosystem defined humans as information-processing beings. Couplings that internalized machine-based attributes into people and externalized human-based features into machines, is perplexing the boundaries of the Self.

POLITICAL CYBER ECONOMY: THE FIRST-WAVE 1945-1960

Cybernetics-tag: Homeostasis

Political economy-tag: Keynesian economic intervention 1930-60, Representative money, The Bretton Woods system (1944-1971), Welfare state, Automatization

HR-tag: The 1948 Universal Declaration of Human Rights

IT-tag: Main-frame computers / time-sharing.

Art-tag: John Whitney's animations made by analogue computer, a converted mechanism of a World War II M-5 antiaircraft gun director

Ad-tag: UNIVAC I (1951)

POLITICAL CYBER ECONOMY: THE SECOND-WAVE 1960-1980

Cybernetics-tag: Reflexivity / Autopoiesis

Political economy-tag: Liberalization, Fiat money (performances of the system), Computerization

HR-tag: 1966-1976 the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights

IT-tag: ARPANET, Graphomat Z64

Art-tag: Mainframe Experimentalism (Stuttgart school, Bell Labs, Nove Tendencije)

Ad-tag: Programma 101 (1965)

POLITICAL CYBER ECONOMY: THE THIRD-WAVE 1980-TODAY

Cybernetics-tag: Virtuelity / Posthuman

Political economy-tag: Globalization,Electronic money,Fragmentation and virtual teaming

HR-tag: The 1980 UNESCO's Recommendation concerning the status of the Artist (Belgrade),
The 2011 UN Guiding Principles for Business and Human Rights
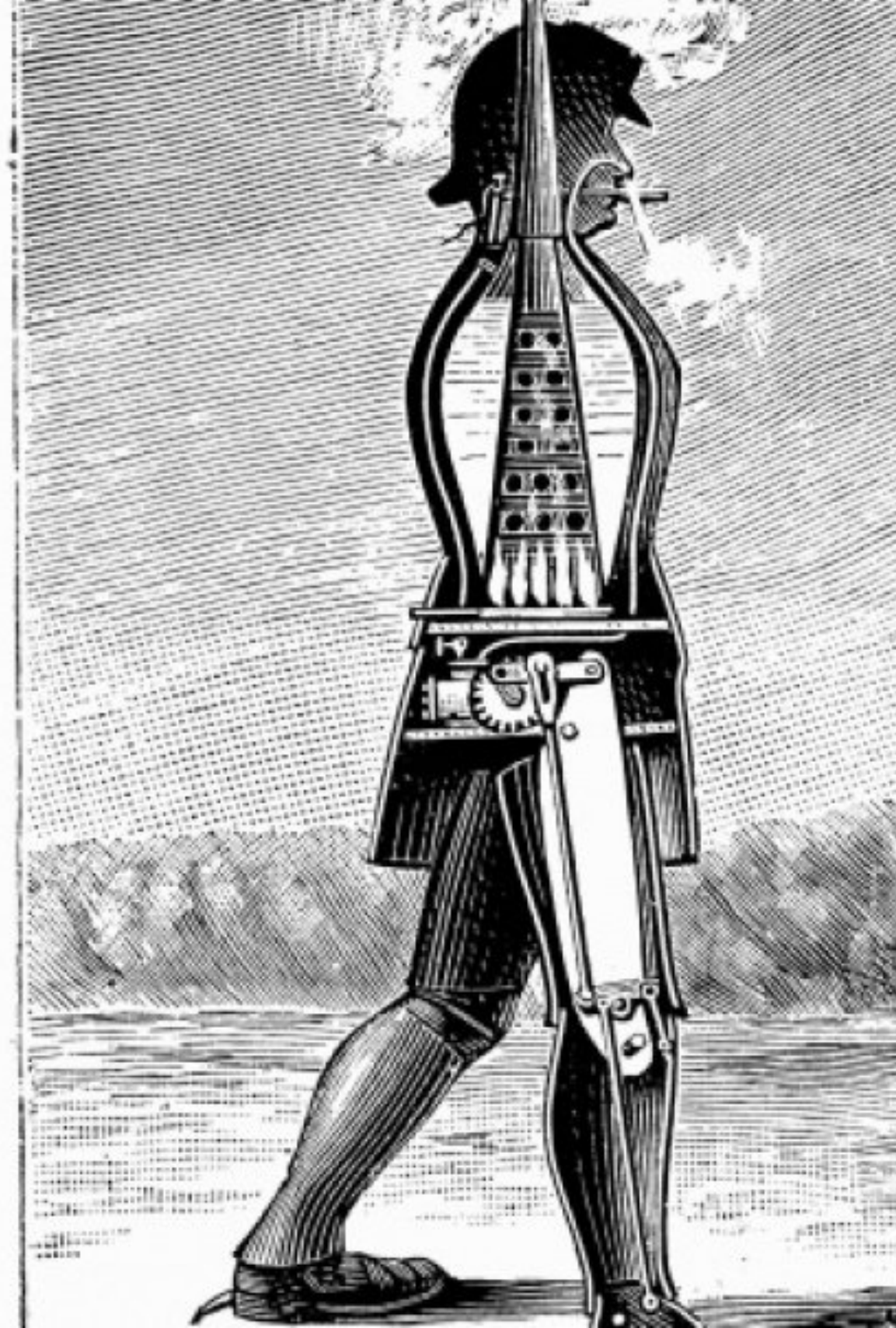**IT-tag:** Interface (Xerox PARC), PC, Minitel, Internet, Quantum computing, AI
Art-tag: Net Art
Ad-tag: Apple Macintosh 1984 (1984)

Cyber Romanticism, as a reaction to the Information Revolution, established the belief in a libertarian online society of the future based on non-hierarchical structures, merit-based assessment, and personal freedom. If historical romanticism was described as the scientific rationalization of nature and marked by the rise in nationalism, the Cyber Romanticism would be seen as the technological empowerment of nature, and decline of the power of the nation-state. The enthusiasm at the opening of the Information Frontier, challenged Keynes's dispirited prediction from the '30s that technological unemployment, caused by widespread automation, would outpace the new uses for labor in the future. In a paper "The Computer as a Communication Device" (1968), proponent of the networked society J. C. R. Licklider, considered the option that "[in Information society] unemployment would disappear from the face of the earth" due to the magnitude of jobs needed to create networks, software, and computer devices to transfer our daily job-life routine into the on-line environment. A citizen-accessibility and a neoliberal utopia, belief in chaos of creativity and the potentials of market, boosted rapid commercialization of Internet.

Information Age Gap

20:1 the world richest and poorest regions
80:1 the world richest and the poorest country

Global winning strategy: buy at low cost and sell costly. Economist Dani Rodrik cites an estimate according to which in three centuries after Columbus and Da Gamas discovery, the growth rate of international trade exceeded more than twice the growth of revenue of society [of the whole world] for that period. Exploitation of subordinated countries, rapid economic growth, globalization and centralized scientific and technological development had increased the gap between the rightful and rightless ones. At the beginning of the Industrial Revolution, the gap between the richest and poorest regions of the world was 2:1. Today this ratio climbed to 20:1, and when the world richest and the poorest country are compared, the gap is even more pronounced, it is 80:1.

There has been an immanent treat that unequal distribution of wealth and technological innovation would create social polarization referred as the digital divide, a gap between the information rich and the information poor.

WELL-BEING: BEYOND GDP

Well-being domains:

Psychological Well-being,

Physical Health,

Human Settlements,

Community, Culture,

Education,

Economy,

Environment,

Governance,

Work

QUALITY
OF LIFE

HAPPINESS

SUSTAINABLE
DEVELOPMENT

AI ETHICALLY ALIGNED DESIGN FOR VIRTUAL WELL-BEING

- **Overall Impact**
- **Basic Needs**
- **Safety**
- **Belonging**
- **Esteem**
- **Self-Actualization**

Licklider forecasted that humans would be able to communicate more effectively through a machine than face to face. Resourcefulness of interface, discovery that innovation can be made by manipulation of symbols within software environment and computer graphics, turned all-purpose-machine into a New Medium. That synergy augmented human intellect and performance, by making accessible the usage of tools and commands for people without highly professional technological skills. But it also tangled up relation between a user and a control system.

The techno-utopian writers had envisioned an alternative merit-based world without gender, in an attempt to decompose male-dominant capitalism, its narrative of profit-based progress and supremacy of winners. What had the future brought in the terms of labor, autonomy, freedom? An artisan of eco-techno-utopia would have been thoroughly free to interact with others in any dimension of an online environment: business, private, or social.

DIGITAL *LAISSEZ-FAIRE* UTOPIA: EMANCIPATORY ROLE

COMPUTER + NETWORK+ EDUCATION = HIP & RICH

- Belief in direct democracy via media technologies

- Interest in self-management and DIY culture

- Emancipatory role of information technology

- The system of personal freedom and choice for all

- *Laissez-faire at* hi-tech entrepreneurship

- Interaction based on individual merits

- World without gender

- Freedom of speech in the cyber space

- Performativity of communication

- Personal freedom for all

- An open frontier of an open source

- Equal online accessibility

POSTHUMAN *LAISSEZ-FAIRE* DYSTOPIA: THE BIG NUDGE

COMPUTER + NETWORK+ FAME = HIP & RICH

RESOURCES:

FUNDAMENTAL ECONOMY
↳ Capital
  Information
  Personnel
  Products and Services

VIRTUAL ECONOMY
↳ Network (bandwidth)
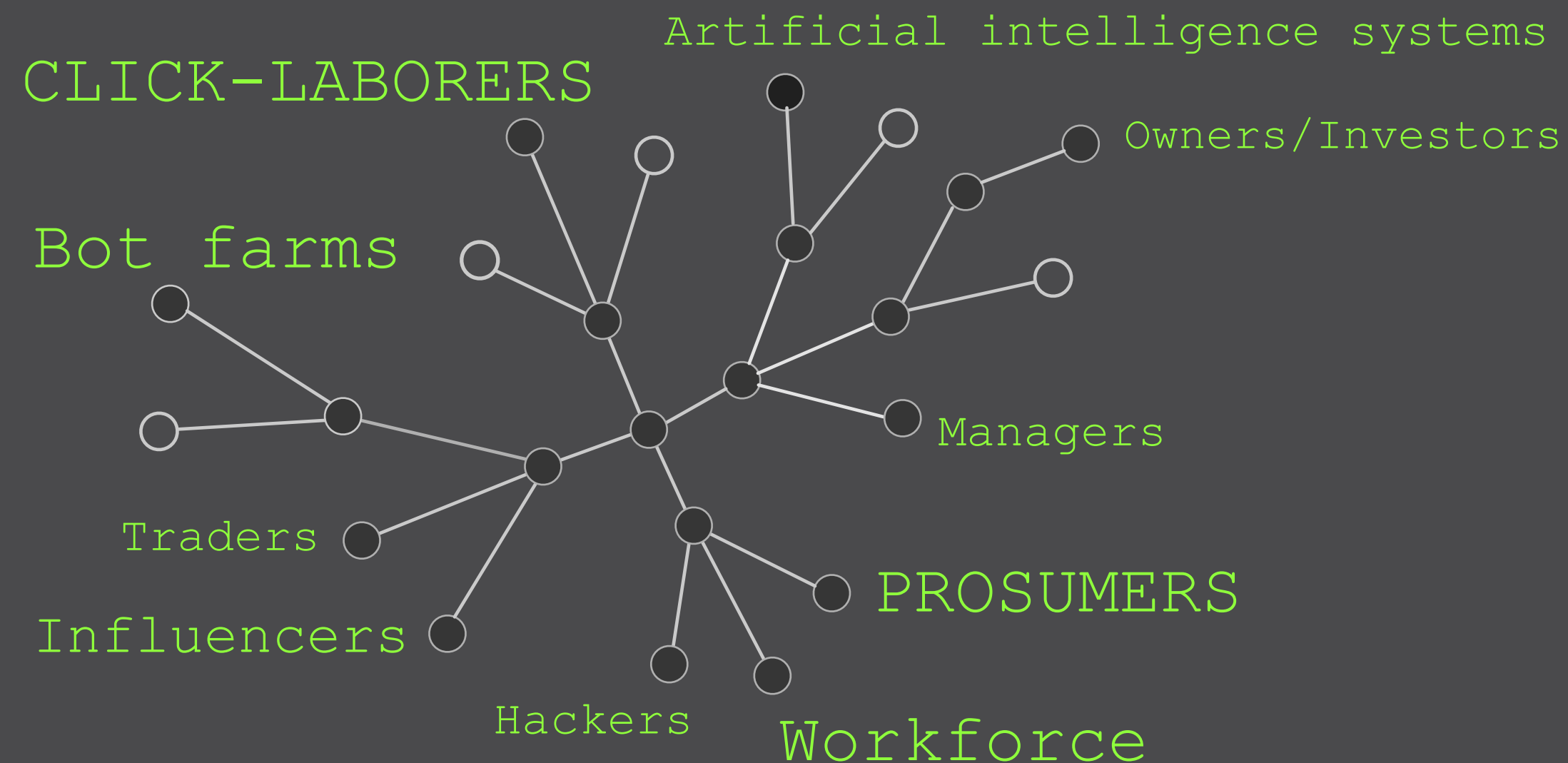 Computing
  Content
  Attention

HOW FAME CAN BE LEVERAGED?

$532 billion beauty industry

Multinational companies, like Loreal spend US $250 million per year for digital marketing on Google

"famous for being famous"
$800 million of Kylie Cosmetics,
$230 million net profit,
made at 3 years.
Kylie Jenner followers
110 million Instagram
25.6 million Twitter,

Artificial intelligence systems

CLICK-LABORERS

Owners/Investors

Bot farms

Managers

Traders

PROSUMERS

Influencers

Hackers

Workforce

Nowadays freewheeling spirit of virtual economy is going great guns.
Data Driven Society is unencumbered by rigid regulations in the relatively regulated environment, and untroubled about the social consequences of their actions in the virtual reality that has no cultural memory. Main revenue models entail: advertising, retails, subscription, services fee, selling virtual goods and currencies for money. Monetization is done in compliance with user's readiness to pay demanded price for certain content. In virtual economy "content is anything that can be delivered digitally that users find desirable, […] the measure of content is not data; it is experience." (Lehdonvirta and Castronova, 2014)

Natural fluctuations in the economic cycle are dependent on the factors such as gross domestic product (GDP), interest rates, employment levels and consumption levels. Disturbing trend of the new economy was reflected in the decline in fees for the work, in contrast to the rapid growth rates of return on capital.

Joseph Weizenbaum, ELIZA

AI BOUNDARIES

Intelligent Machinery Prerequisite
intuition
emotions
body
responsibility
awareness of its own death
...

Computer as a conservative force

Whether the computer revolutionized social structure or it strengthened already existent powers?

JOSEPH WEIZENBAUM, 1976> WHAT COMPUTERS SHOULD NOT DO

1) "I would put all projects that propose to substitute a computer system for a human function that involves interpersonal respect, understanding, and love in the same category."

2) "Computer application that ought be avoided… is that which can easily be seen to have irreversible and not entirely foreseeable effects."

3) "Finally it is the act itself that matters. When instrumental reason is the sole guide to action, the acts it justifies are robbed of their inherent meanings and thus exist in an ethical vacuum. [e.g.] 'We could have taken a moral stand, but what good would that have done?'"

Appendix
AI as a social metaphor

Responsibility implies understanding of cause and consequence relation of our actions—it involves things one is accountable for, and a sanction if the social role responsibility is disregarded. The social responsibility implies consciousness of oneself as an agent, and the responsibility for oneself but also for the others. The causal responsibility for our own thoughts, natures, and actions is the core problem of any theory of action. In order to relieve effects of the Great Depression in US, Roosevelt's Works Progress Administration (WPA) started the Public Works of Art Project inspired by the Mexican Muralist Movement. A painter George Biddle proposed the undertaking to Roosevelt. The Public Works of Art implied art instruction, art research and art production, i.e., creation of posters, paintings and murals for public buildings. The aim of Federal Arts Program (FAP) was to employ out-of-work artists. FAP provided over 5,000 jobs (wage was $23 to $35 a week) and produced over 225,000 public artworks for the American people. The hundreds of American artists worked through the WPA, many of them achieved worldwide recognition afterwards such as Mark Rothko, Jackson Pollack, Willem De Kooning, Arshile Gorky, Berenice Abbott, etc.

When conceiving a test for possible intelligent behavior of a machine, Turing proposed that human evaluator should judge it upon a conversation between a human and a machine equipped to generate human-like replies. Urtica's satirical art video *Art and Crisis "Facing Bureaucrat"* does not mimic Turing Test, but uses it as a metaphor for an automated logic of bureaucracy and subsequent austerity measures as response to the 2008/11 economic crisis. An Artist and a bureaucrat Eliza, are entering into a conversation. The Artist is mainly preoccupied with the existential issue *Shall the Art/Artist survive?*, while Eliza is trying to find an answer according to cultural policy guidelines, a reference to UNESCO's Recommendation concerning the status of the Artist (Belgrade 1980). Storyline consists of five actions. Those actions were main technical problems for early artificial intelligence systems.

Go to> *Art and Crisis—Facing Bureaucrat*
http://urtica.org/artworks/artandcrisis.html