Computer Sciences are Social Sciences!

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About this weirdo

- ▶ From Sanremo, **Italy**
- ▶ Philosophy, International Studies and Economics graduate at Venice University
- ▶ anxious and overenthusiastic
- ▶ quit centralized social media in 2020
- ▶ Free Software, DWeb, *Fediverse*, and digital rights activist

A few premises

- This presentation is a work in progress, limited, and at times oversimplified experiment
- I am still learning, please excuse missing points
- The main purpose of this talk is to **foster reasoning** and **stimulate a dialogue**
- Throughout the talk, the focus is on **the Internet** as an instance of Computer Science
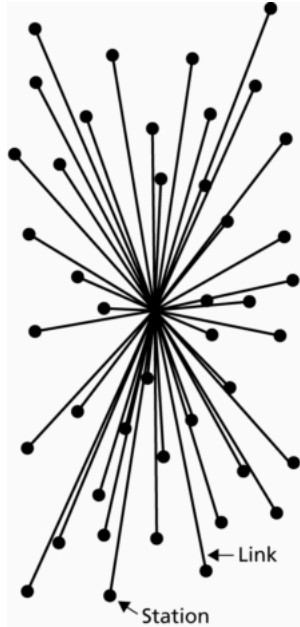
A chronological journey

1. The birth of the Internet
2. The current Internet and its flows
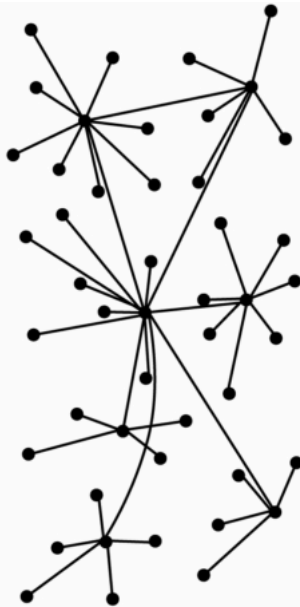3. Developing digital futures starting from a socio-philosophical approach

The birth of the Internet

*Baran's concept had the same **centrifugal** character that defines the Internet today. At its most basic, ... the "centrifugal" approach is to flatten established hierarchies and put power and responsibility at the nodal level so that each node is equal. Baran's network focused on what he called user to user rather than ... centre-to-centre operation.*
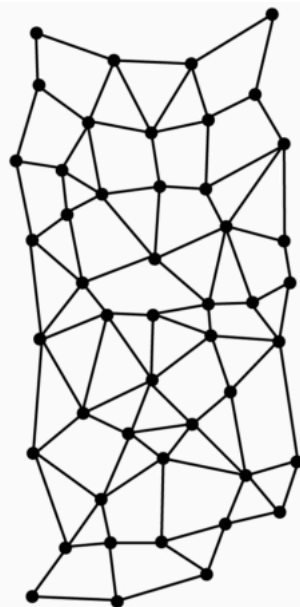
$\sim$ Johnny Ryan, *A History of the Internet and the Digital Future*

Centralized (A)　　　　Decentralized (B)　　　　Distributed (C)

Collaboration, that stranger

At the core of Licklider's thinking was an emphasis on collaboration. Licklider posited a future scenario in which a researcher at one research centre could find a useful computer resource over the network from a research centre elsewhere. This, in a world of incompatible machines and jealously guarded computing resources, was far-sighted talk indeed.

∼ Johnny Ryan, *A History of the Internet and the Digital Future*

The Internet of the '90s

- a widespread *diffidence* by non-experts towards digital telecommunications, because of its subversive *complexity*, but also because of. . .
- . . . a fundamental *counter-intuitiveness* of the infrastructure, based on. . .
- . . . a heavily *decentralized* system, where no main node exists, and whose effectiveness is based on the *distribution* and *redundancy* of information and computing resources;
- a focus on *collaboration*, on *sharing ideas* and resources, on commonly defined standards allowing *interoperability*;
- both a strive and a drive for *interconnecting* concepts, users, and devices;
- a diffused feeling of liberty and *curiosity*, fostered by a great *informality* coupled with a cozy and friendly community;
- lack of interest from the financial world.

The Internet's Original Sin

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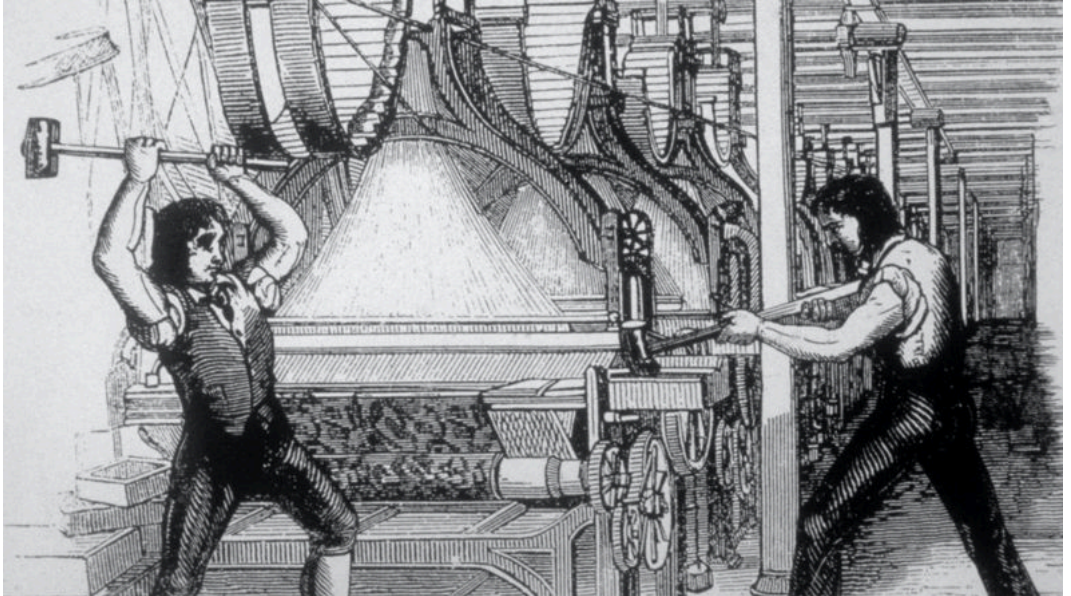*Living in America at the end of the millenium...*

you are what you own

Spoiler: long story short, the problem of the Internet, the whole problem, is Capitalism

The Internet of the 2020s

- a widespread **blind reliance** on digital telecommunication tools by non-experts;
- ...that compose **appealing** and **intuitive** platforms, nicely and masterfully simplified by exploiting...
- ...a strong and almost inescapable **centralization** carried out by monopolistic **profit-driven** companies;
- a strongly **competitive** business, inherited by the deeply capitalist culture the *dot com bubble* represented;
- as with anything inscribed within a capitalist economic system, technological innovation is carried out in parallel by the isolated silos that are the different companies potentially working on the same project, and **competing** to overcome the others rather than join forces with the common purpose of providing the best service possible;
- interconnection opportunity is functional and **subordinate to the monetization** and the general profitability of digital devices;
- Computer Sciences and the Internet are not merely strongly tied with finance, but they are directly **dominated by the market**, and their principles are more financial ones rather than technological and human ones.

A cautionary tale

Flash-forward to today

Don't hunt the puppet, but rather hunt the puppet masters

$\sim$ Shoshana Zuboff, *The Age of Survelliance Capitalism*

Philosophy *in* Science

> *[Philosophy in Science] is dedicated to fostering the pursuit of a philosophy of science that considers theory, practice and the world simultaneously, and never in isolation from each other.*

~ Pradeu et al., *Philosophy in Science: Can philosophers of science permeate through science and produce scientific knowledge?*

Digital Humanities?

Subverting and revolutionizing the relation between humanities and tech: the point is not about moving humanistic heritage to the digital domain, but rather using sociopolitical, philosophical and anthropological tools to **question digital technical infrastructures**.

The essence of technology

Technology is not equivalent to the essence of technology. When we are seeking the essence of "tree," we have to become aware that that which pervades every tree, as tree, is not itself a tree that can be encountered among all the other trees.

Likewise, the essence of technology is by no means anything technological. Thus we shall never experience our relationship to the essence of technology so long as we merely conceive and push forward the technological, put up with it, or evade it. Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it. But we are delivered over to it in the worst possible way when we regard it as something neutral; for this conception of it, to which today we particularly like to do homage, makes us utterly blind to the essence of technology.

~ Martin Heidegger, *The Question Concerning Technology*

But this much remains correct: modern technology too is a means to an end. That is why the instrumental conception of technology conditions every attempt to bring man into the right relation to technology. Everything depends on our manipulating technology in the proper manner as a means. We will, as we say, "get" technology "spiritually in hand." We will master it. The will to mastery becomes all the more urgent the more technology threatens to slip from human control.

Max Weber

The fact that what is called the technological development of modern times has been so largely oriented economically to profit-making is one of the fundamental facts of the history of technology. [. . .] the main emphasis at all times, and especially the present, has lain in the economic determination of technological development. Had not rational calculation formed the basis of economic activity, had there not been certain very particular conditions in its economic background, rational technology could never have come into existence.

Surveillance Capitalism is not Technology

> *Surveillance capitalism is not technology; it is a logic that imbues technology and commands it into action. Surveillance capitalism is a market form that is unimaginable outside the digital milieu, but it is not the same as the "digital". [. . .] surveillance capitalists want us to think that their practices are inevitable expressions of the technologies they employ.*

$\sim$ Shoshana Zuboff, *The Age of Survelliance Capitalism*

Karl Marx

> *The bourgeoisie cannot exist without **constantly revolutionising the instruments of production**, and thereby the relations of production, and with them the whole relations of society. Conservation of the old modes of production in unaltered form, was, on the contrary, the first condition of existence for all earlier industrial classes. Constant revolutionising of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones.*

$\sim$ Karl Marx, *The Manifesto of the Communist Party*

Automating inequalities

*The skyrocketing economic insecurity of the last decade has been accompanied by an equally rapid rise of sophisticated data-based technologies in public services: predictive algorithms, risk models, and automated eligibility systems. Massive investments in data-driven administration of public programs are rationalized by a call for efficiency, doing more with less, and getting help to those who really need it. But the uptake of these tools is occurring at a time when **programs that serve the poor are as unpopular as they have ever been**. This is not a coincidence. Technologies of poverty management are not neutral. They are shaped by our nation's fear of economic insecurity and hatred of the poor; they in turn shape the politics and experience of poverty.*

~ Virginia Eubanks, *Automating Inequality: How High-tech tools profile, police, and punish the poor*

A room (a world) on fire

Thinking philosophically means slowing things down. It means waiting to see the results, it means diving into the exhausting process of **questioning anything and everything**.

Politcal code!

Let us fight the battle Aaron Swartz fought. Let's not just look for the solution *within* code, but using it to empower political action.

A glimpse into alternatives

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Some main ones:

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- ▶ Matrix (decentralized chat protocol)

- ▶ The Fediverse (federated, independent social networks)