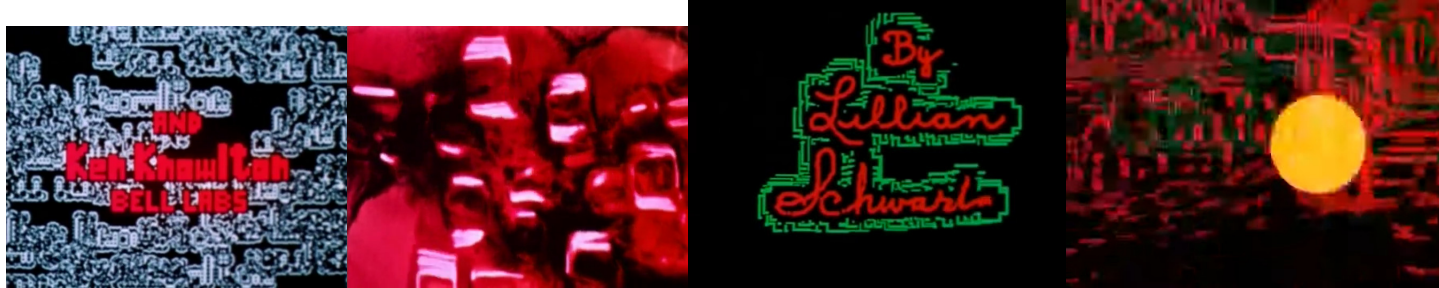# Computer science and technology : historiography IV (6 - part two)

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May 8, 2022

ARCHIVES : EARLY COMPUTER GRAPHICS

Il. Lillian Schwartz and Ken Knowlton : Pixillation (1970) / UFOs (1971)

ARTICLES, BOOKS

— Knowlton, Ken. 1976. Contribution to : *Artist and Computer*, 65 f..

Topics : 'What is art?', 'The role of tools', 'The nature of the gift'... In that last section, answers the question

"What sort of enterprise or endeavor is it, then, for the person who programs and produces "computer art"? (...) he/she conceives a process (...) With the computer as the tool, it is usually the intrigue of new combinations, sequences, probabilities, relationships, geometries (...)"

— Schwartz, Lillian. 1976. Contribution to : *Artist and Computer*, 107 f..

"I, Lillian Schwartz ... am a native of Cincinnati, Ohio ... I studied free-hand drawing at the University in 1948-1949, ... and finally came to the New York area in the '50s ... I met and began to work with Ken Knowlton, a computer scientist, in 1969, following the 'MACHINE' exhibition at the Museum of Modern Art (...)"

CONFERENCE PROCEEDINGS AS PRIMARY SOURCES

e.g.,
— SIGGRAPH 81. Dallas, Texas. circa 325 pages.
— SIGGRAPH 82. Boston, Massachusets. circa 350 pages.
— SIGGRAPH 85. San Francisco, California. circa 340 pages.

"These proceedings contain full papers corresponding to oral presentations given in the technical program of the conference and are being published as a special issue of *Computer Graphics.*"

PRIMARY SOURCE : ELITE PHILOSOPHY

— Graham, Paul. 2006. "The power of the marginal".

A true highlight is reached when this venture capitalist, obviously cuckoo and so very far removed from the average lives of people, starts going "*By conventional standards, Jobs and Wozniak were marginal people too.*" ("great new things often come from the margins").

— Graham, Paul. 2020. "The four quadrants of conformism".

Financier/investor with delusions so advanced he imagines himself a free-tinking outsider misunderstood. But not content with merely that he must create an entire philosophy around it. This is CS Lewis for Wall Street malaise.

Elite philosophy in the tech sector – from Paul Graham to Peter Thiel through Elon Musk – is a highly abstract expression of having to cope with existence as multi-millionaires with a durable fixation on aussenseitertum... A nasty problem indeed.
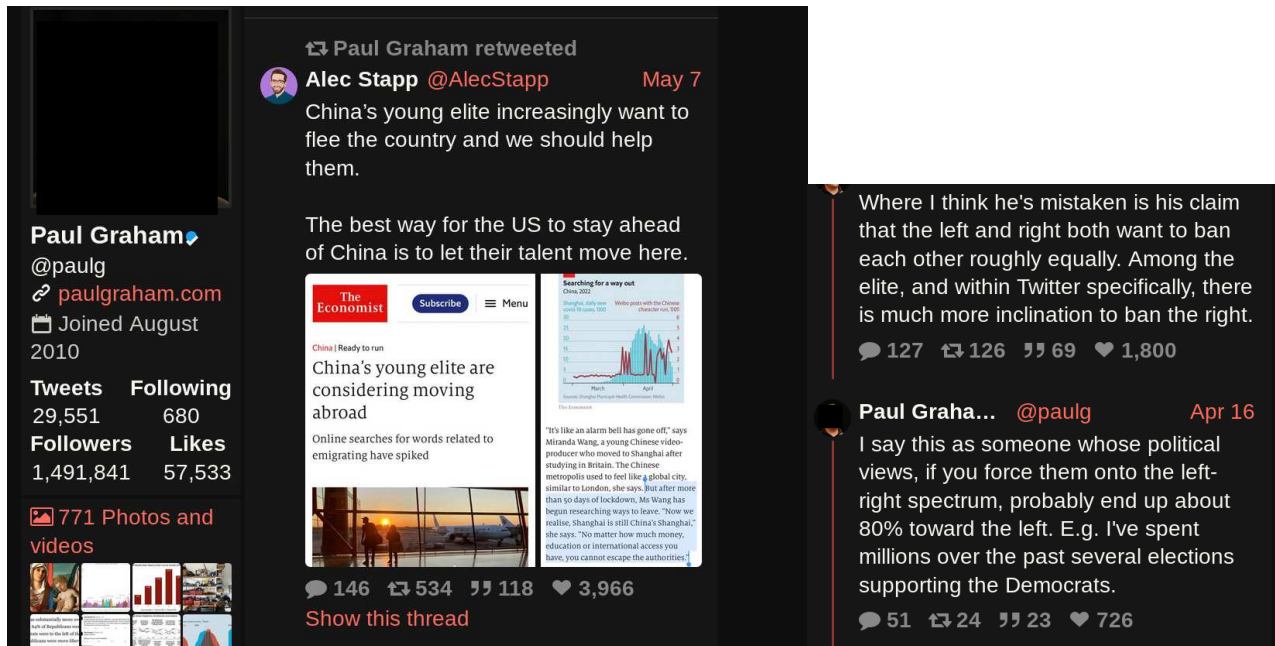
A war happening in Eastern Europe, and meanwhile venture capitalists among which Paul Graham worried in 2022 about helping "*China's young elite*", "flee"...

When "forced" - his term - onto a left and right spectrum (remember : he is not like other people, hence dislikes categorization), Paul Graham describes himself "80% left", by which he means donating millions to the Democrats.

Eighty per cent of a one hundred per cent capitalist party is the kind of strange equations and mathematics that alone bullied tech. billionaires can know the answers to, and have the time to solve.
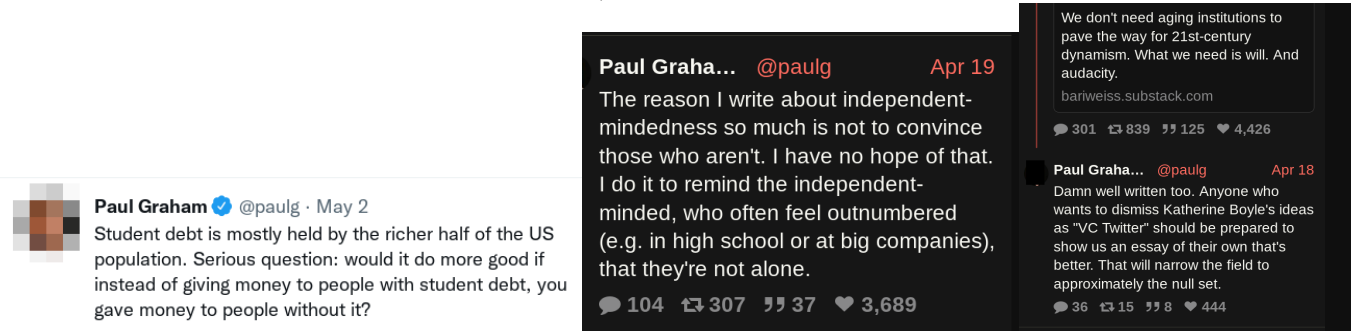
MONOGRAPHS, ARTICLES

— Lapsley, Phil. 2013. *Exploding the Phone.* Grove.

Monograph on phreaks.

— Hafner, Katie. 1995. "Kevin Mitnick, Unplugged". *Esquire*, Aug..

Kevin Mitnick, Susan Thunder, Roscoe...

"*by the early eighties, the good times had soured. In 1982, Susan testified in a case that ended in a conviction for Roscoe and probation for Kevin, both of whom were accused of stealing computer manuals from a Pacific Bell building. Roscoe later managed to get the conviction set aside and went on to work at a straight job as a computer manager. Susan drifted to Las Vegas, tried professional poker, and dabbled in the escort business. But Kevin drifted further into the dark side of the computer world.*"

— *The Hacker's Handbook* (1985, attributed Cornwall)

Contains many fascinating information whose sources are not always clear.

"*In this respect, the hacker is the direct descendant of the phone phreaks of fifteen years ago. Phone phreaking became interesting as intra-nation and international subscriber trunk dialing was introduced, but when the London-based phreak finally chained his way through to Hawaii, he usually had no one there to speak to except the local weather service or American Express office, to confirm that the desired target had indeed been hit. One of the earliest of the present generation of hackers, Susan Headley, only 17 when she began her exploits in California in 1977, chose as her target the local phone company and, with the information extracted from her hacks, ran all over the telephone network. She 'retired' four years later, when friends started developing schemes to shut down part of the phone system. There is also a strong affinity with program copy-protection crunchers. Most commercial software for micros is sold in a form to prevent obvious casual copying, say by loading a cassette, cartridge or disk into memory and then executing a 'save'*"

ADAPTATION - BOOK AND FILM

— Gibson. 1981. *Johnny Mnemonic. OMNI*, May. circa 8 pages.

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COLONEL STONESTEEL'S EGYPTIAN MUMMY	Fiction	Ray Bradbury	76

And all the bulbs lit simultaneously. They were flashing red, white, and blue.
RWBRWBRWB
RWBRWBRWB
RWBRWBRWB
RWBRWBRWB
RWBRWBRWB

Another seminal short story collected, later, in *Burning Chrome*.

"I followed Dog and Molly through Lo Tek heaven ... built from scraps that even Nighttown didn't want."

— *Johny Mnemonic* (1995)
Opening text :

"Second decade of the 21st century. Corporations rule.

The world is threatened by a new plague : NAS Nerve Attenuation Syndrom,

fatal, epidemic, its cause and cure unknown.

The corporations are opposed by the LoTeks,

a resistance movement risen from the streets:

Hackers, data-pirates, guerilla-fighters

in the info-wars.

The corporations defend themselves.

Thet hire the Yakuza, the most powerful of all crime syndicates. ...

The most valuable information must sometimes be entrusted to mnemonic courriers, elite agents (...)"

A Gibson adaptation featuring Keanu Reeves in an early starring role. Takeshi Kitano plays opposite sides.

In typical cyberpunk fashion, a gig is accepted which turns out badly or to have complications ("a blown deal"). The protagonist extends their capacity to carry up to 160 GB (warning "do not exceed"), while on the side of the corporation the problem being "*The courier escaped with the data*". The protagonist leaves Beijing, where the assignment took place, for the "free city of Newark", where an airport computer/scan reveals they have 24 hours left due to the procedure. The client is a company called PharmaKom. While fighting them, the protagonist discovers they have common interets with J-Bone, who runs Heaven - the Lotek headquarters.

Il. [1] detail placard STOP NAS NOW [3-4] Newark [5] detail anarchist tattoo

One preoccupying theme is that, in order to make space for data, memories must be discarded or put aside including important ones - with later full or only partial recovery. As part of their struggle, they meet Jane, (really Molly), who has useful skills like lockpicking. The LoTek hacker group intervene and, in hacker tradition, liberate the information.

FILM

Sneakers

Arguably best known remain the opening hacks, and the closing dialogue :

"The world isn't run by weapons anymore, or energy or money. It's run by little ones and zeroes, little bits of data. (...) There's a war out there, old friend : a world war. And it's not about who's got the most bullets. It's about who controls the information : what we see and hear, how we work, what we think.".

as well as the main characters Cosmo and Marty, representing the various cultures of hacking. (The former being, in our opinion, by far the more complex and interesting - who cares about a converted, square-jawed white hat.)

Robert Redford's most relevant previous role was probably in All the President's Men, by Pakula; scenes involving the Russian contact bear more than little resemblance to Deep throat ones.

A computer hack consisting in funding the Black Panthers by transferring money from the Republican Party's bank account (another one is a hack popularly associated with Mitnick, whereby Nixon's account is emptied/closed, to give this time to an association for drugs legalization) opens the film. Here, the "hacking with a purpose", Robin Hood variety of hackers is illustrated. A dignified representative of Black America on the screen (roles until then where mostly limited to the kind described by James Baldwin in I am not your negro, like the goofy black servant figure), Sidney Poitier by that time had had a long career : A Raisin in the Sun's 1961 adaptation, 1965 A patch of Blue and the similar, modernized, updated Guess Who's Coming to Dinner (educated Black man and a white woman).

The character Whistler is a reference to historical blind phreaks (e.g. Engressia, Teresi...).

Conversation, The

Harry Caul is considered an elite in his occupation. His participation to conventions are announced beforehand in specialized press. He prefigures hacking as a job.

John Cazale – one of the great miraculous actors in Hollywood – plays Harry's wingman, in a fashion that instantly recalls his signature style from the Godfather; as a lovable, somewhat naive, partly unlucky side man. In the Conversation, he complains that Harry "never shows [him] anything!", when confronted after moving to the rival - hacker - group. Also the scene when Harry dances with a female companion, while Stan awkwardly moves around in the background.

Harrison Ford plays Martin Stett (assistant to Harry's client). Ford's later most relevant role, in the context of computer science and technology, is likely Blade Runner, but also includes The Fugitive (a veiled Ted Kaczynski, considered highly dangerous, who fools law enforcement, again and again, through resourcefulness and intelligence).