

# Creative Coding & Creative Computing Frameworks

## Week 7: Theories and Histories: APIs

Transparency, occlusion, interoperability, integration

What are the conditions under which Application Programming Interfaces (APIs) emerged?

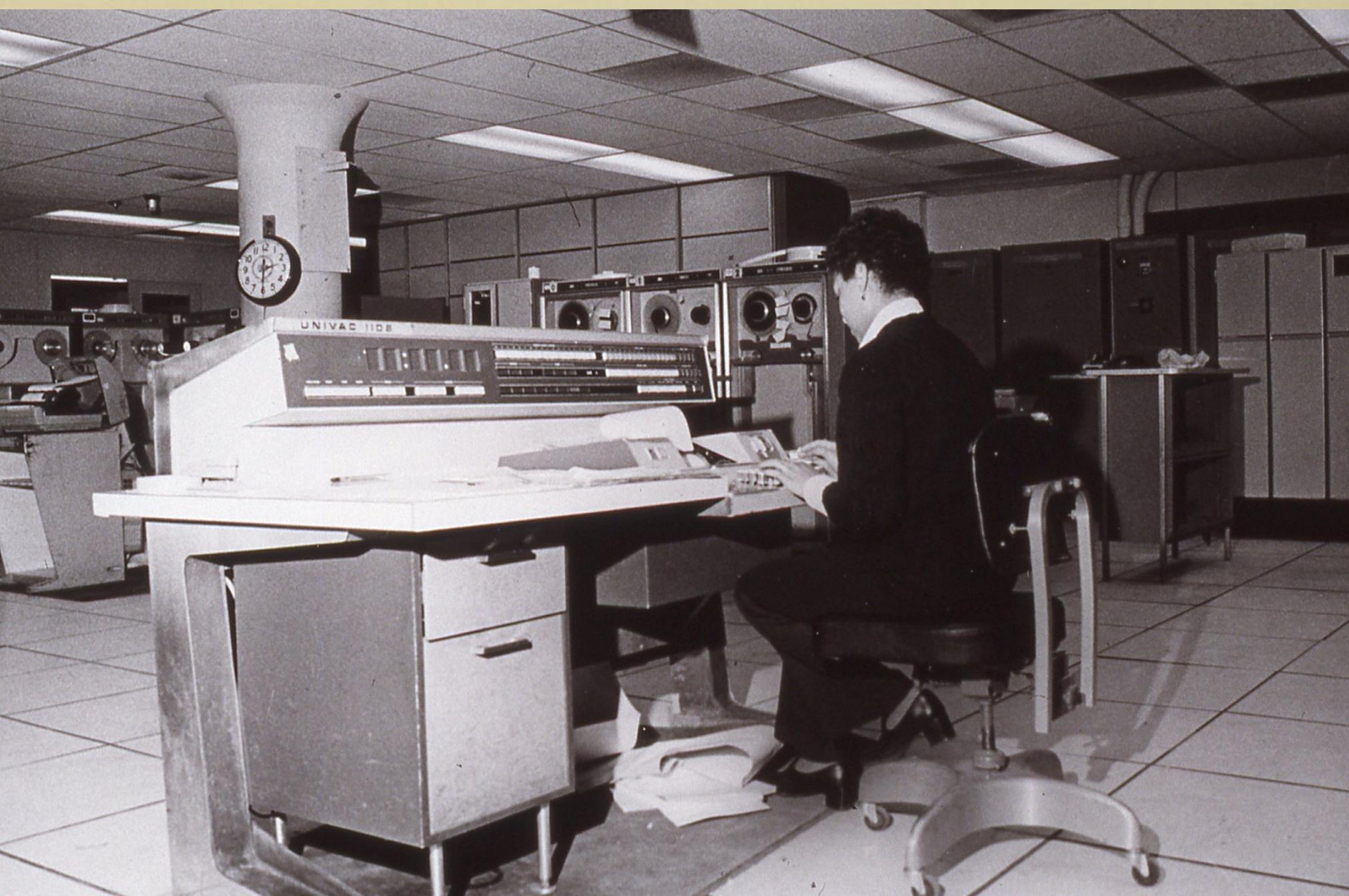
What do they do, and for whom?

If APIs' central purpose and currency is the continuous release of 'information', which phenomena can be rendered into that category, and which cannot?

**Image:** Logos of APIs for Alexa (Amazon), Viscovery, Fitbit, Netflix, Football prediction, Nest (google) and Moltin



The library of tapes on which subroutines are punched is contained in the steel cabinet shown on the left. The operator is punching a program tape on keyboard perforator. By placing library tapes on the tapereader shown in the center of the photograph, the operator can copy them mechanically onto the tape she is preparing.



## Week 7: Theories and Histories: APIs

### The ineffable object of computer interaction design

If we consider the purpose of the Graphical User Interface (GUI) – and 'interaction' – that were under discussion last week (Week 6), one of the most important differences we should consider is that APIs' function is to enable machines to 'talk' to machines, not machines to human users (or to offer *them* access to information).

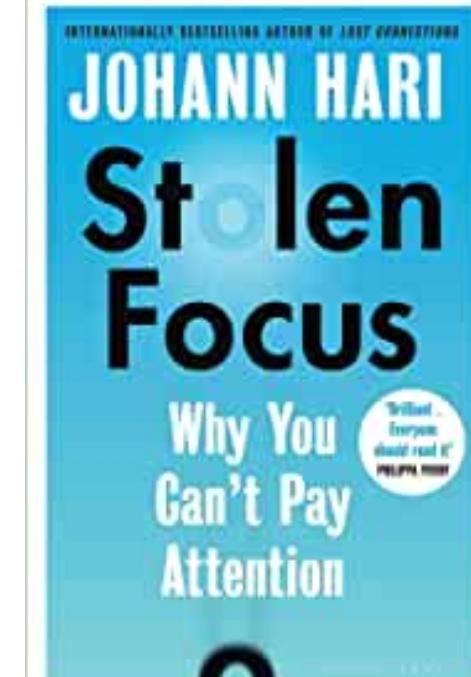
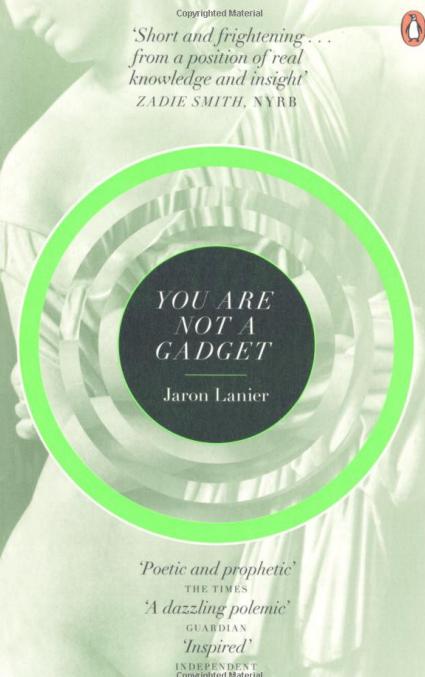
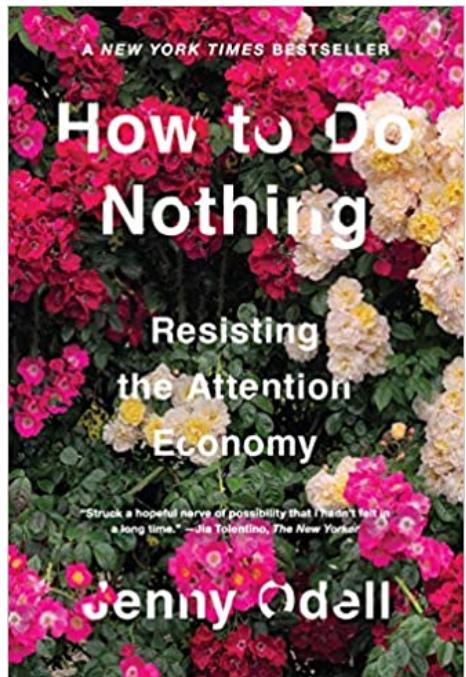
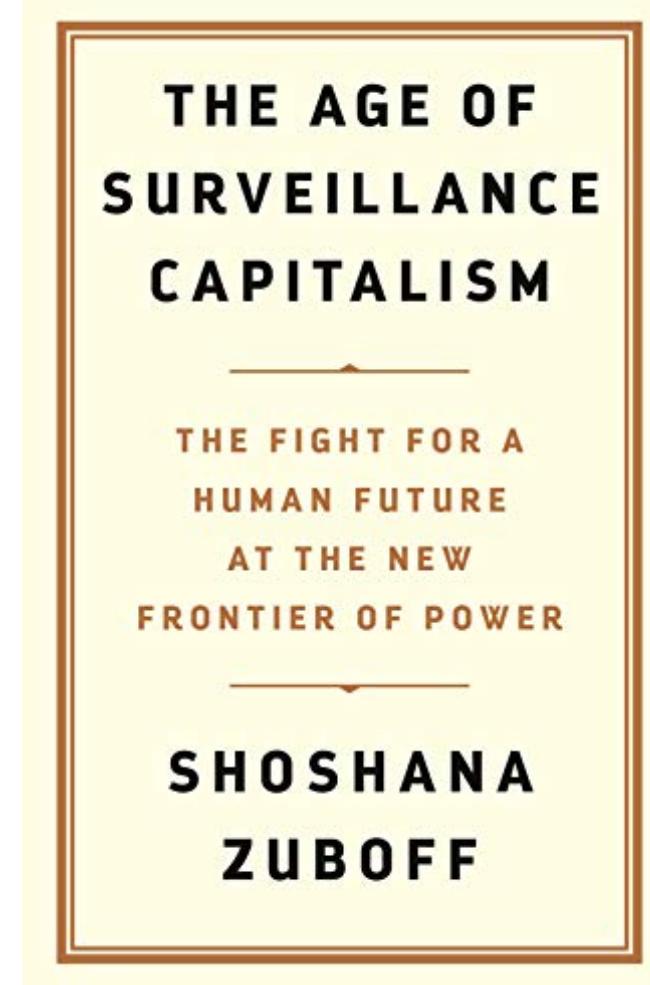
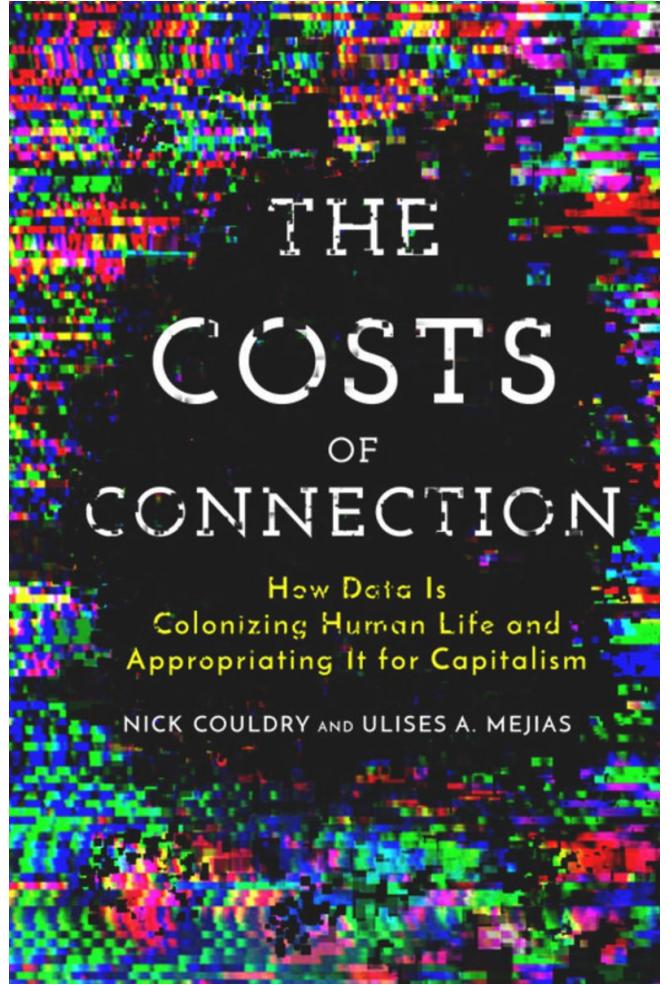
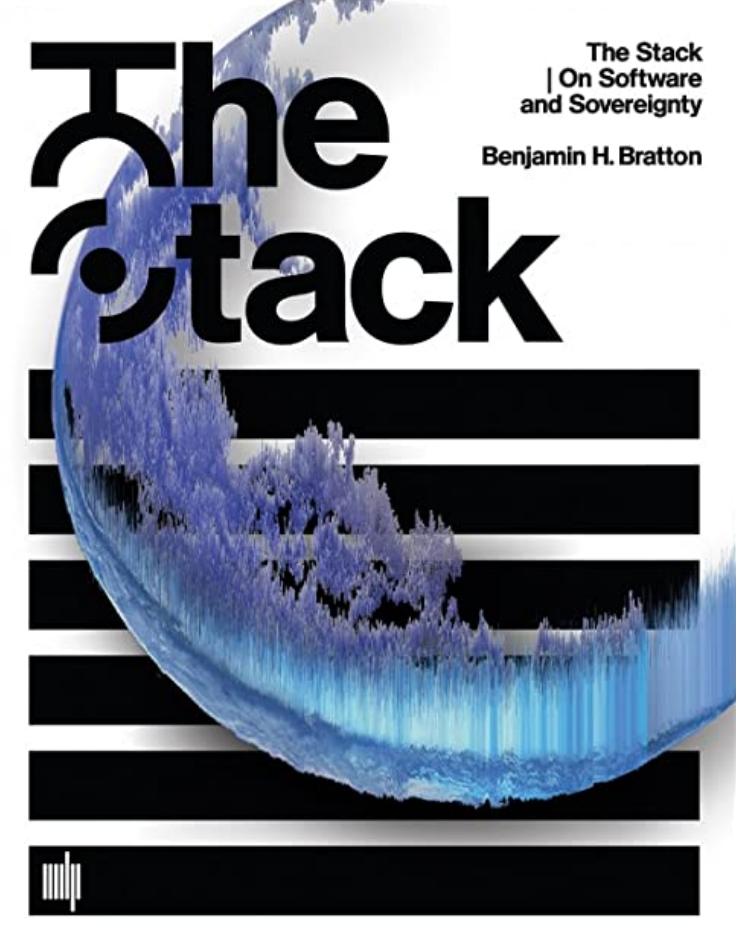
This is not to say that human beings are not involved in their workings, or design, rather to understand that human beings might be:

- involved in processing data types to enable machines to talk to each other
- involved in deciding what

**Image top:** The Oil of the 21st Century conference website from 2008, when Intellectual Property still claimed the digital 'oil' mantle

**Image bottom left:** Mar Hicks, *Programmed Inequality* (2017)

**Image bottom right:** Wendy Hui Kyong Chun, *Programmed Visions* (2011)



## Week 7: Theories and Histories: APIs

### Common frames and themes

A rush of books on platform capitalism shows us there is a rough consensus as follows:

- The instinctual human desire to communicate, share and express oneself has been monetised by a few large multinational corporates
- These 'big five' – Alphabet (Google), Amazon, Apple, Meta (Facebook), Microsoft – are unaccountable to states and their laws, out of the reach of democratic challenge, and predate on the resources of the world in a process of aggressive vertical integration
- Over time, the charges that have been incurred, both individually and collectively, have turned out to dwarf the gains users might have made by using their (often free) services
- Their practices now present, not only a mortal threat to erstwhile well-functioning democratic processes, but also an incursion into the sacred private realms of the human being, her experiences, and the interiority of the psyche
- The early promise of the 'utopian' phase of the Web has been polluted, now pointing in the direction of a downward spiral with no end (other than planetary life itself)
- As such, there is something *sui generis* – or special, unique – about the data economy that demands new frames of analysis, vis a vis those older ones in place to understand capitalism

**Image:** A selection of books on the rise of platform capitalism with greater and lesser emphases on underlying material conditions and histories. Benjamin Bratton, *The Stack* (2015), Nick Srnicek, *Platform Capitalism* (2016), Nick Couldry and Ulises A. Mejias, *The Costs of Connection* (2019), Shoshana Zuboff, *The Age of Surveillance Capitalism* (2018), Jenny Odell, *How To Do Nothing* (2019), Jaron Lanier, *You Are Not a Gadget* (2010), Johann Hari, *Stolen Focus* (2022)



## Week 7: Theories and Histories: API's

### Frames of data-capture

The critical debates around data-capture and platform/surveillance capitalism are difficult to disentangle, as they make crucial observations but have a tendency to generate a number of universal categories that themselves should be subject to critical interrogation and historicisation. Important examples are:

- privacy
- the human / the child / the family
- normal, free behaviour & activity
- nature / the natural
- crisis / apocalypse
- violence, control, suffering, health
- history, its phases and periodisations

We must keep this problematic in mind as we approach the debate's terms, if we are not to create a whole new set of reifications, and be diverted again from understanding the place of this crisis of 'freedom' in a larger, and especially planetary, frame.

**Image:** Facebook-CEO baddy chasing and capturing the 'nature' of our unknown drives, behaviours, habits

# InRealLife

A Film by Beeban Kidron



## Moral panics, their subjects and tropes

Who feature in the popular treatment of surveillance capital's fearful projections? Whose faces do we see, whose plight has triggered our collective alarm?

- It is difficult to say otherwise than that this is the (predominantly white and bourgeois) child of the Western heteronormative family
- Documentaries track a loss of illusion, shock and horror as to the real-world applications of 'innocent' and purportedly neutral instruments and technologies, but demonstrate underlying blind spots of who – which groups and demographic categories – were always already capitalism and the spectacle's victims
- Recursive feedback loops between negative social phenomenon, and the spectacular/attention value of that negative phenomenon in new content economies are getting tighter and tighter, and it may be that the only product of note we should take seriously, being manufactured by streamers, are forms of fear and paranoia that drive us deeper into their arms; deeper into alienation and solitude

Image left to right: Beeban Kidron, *InRealLife* (2013), Jamin and Kiowa Winans, *Childhood 2.0* (2020), Karim Amer, Jehane Noujaim, *The Great Hack* (2019), Jeff Orlowski, *The Social Dilemma* (2020)

# The Missing Cryptoqueen

Home Podcast Listen Along with Olivia & Alex Bowen



A screenshot of a Radio 4 website. The top navigation bar includes 'RADIO 4' and 'Forum Internum'. Below the navigation is a portrait of a woman with blonde hair, set against a background of glowing blue neural network or brain activity patterns. A 'Listen now' button is present. The main content area is titled 'Freedom of Thought' and 'Episode 1 of 3'. A descriptive text below the title reads: 'Series exploring the right to freedom of thought in the digital age and protecting the forum internum – our private, mental space – from the incursions of new technology.' To the right, there is a note 'Available now' and a duration of '28 minutes'. A 'Show more' link is at the bottom.

## Week 7: Theories and Histories: API's

What cuts across these melancholic tales of loss and danger

- The outright attack on the social bond, trust, collectivity
- The erosion of structures of collective organisation and defence, which might present a bulwark against the 'predatory' forms
- The insecurity of the private, bounded self
- Endless illustrations of the lengths that individuals (and their psyches) will go to to 'make it' in a market suffused from top to bottom with possibilities for subterfuge, fakery, illusions
- A flight, ever further, into systems that may securitise, both, vis a vis market forces and the trust deficit (NFTs, Blockchain, etc.), although this has been counter-balanced by a rise in unionising too

**Image:** recent podcasts and programmes highlighting the threats to the psyche and trust-based human communication in a spectacularised, networked capitalism with threadbare verification mechanisms

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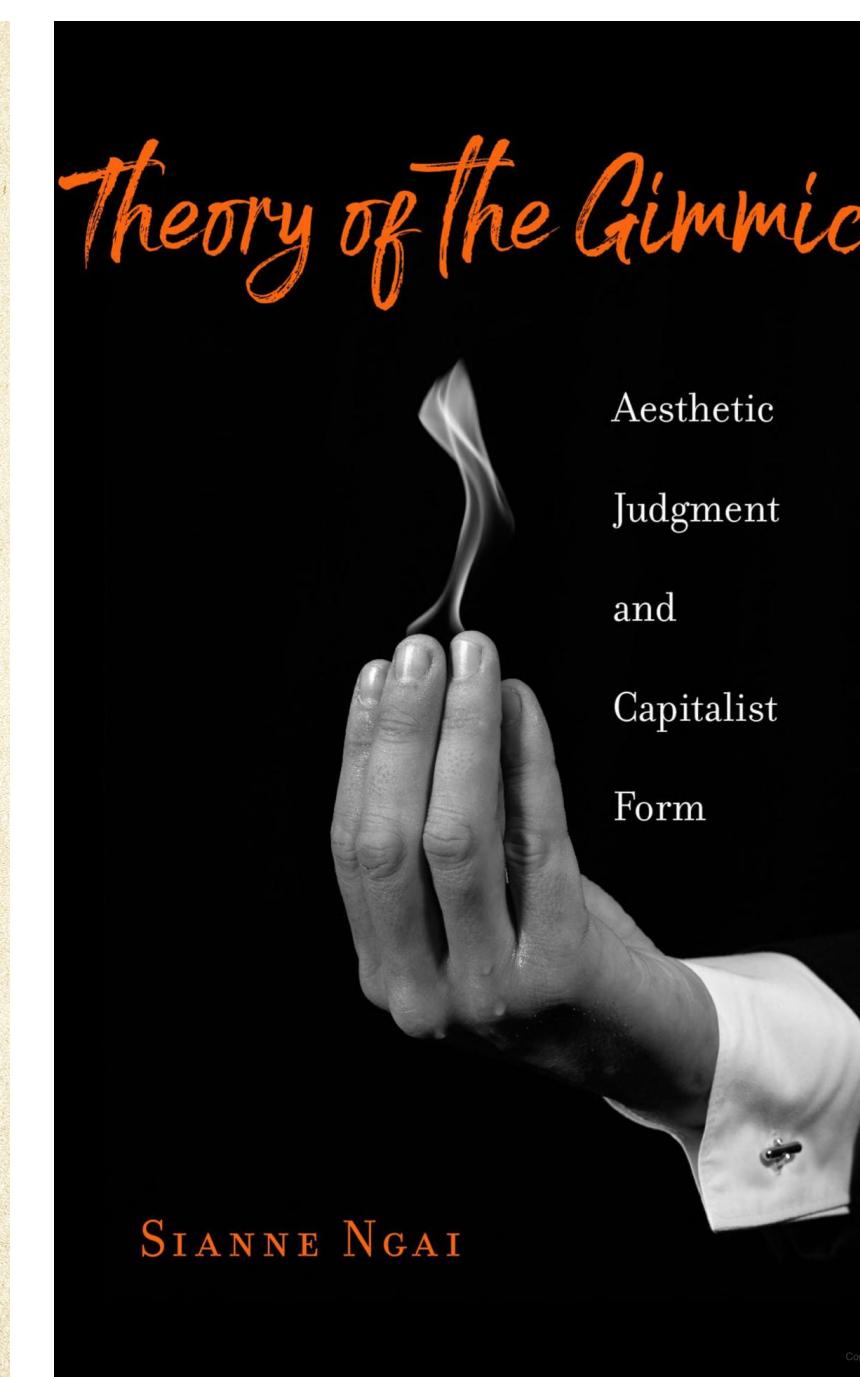
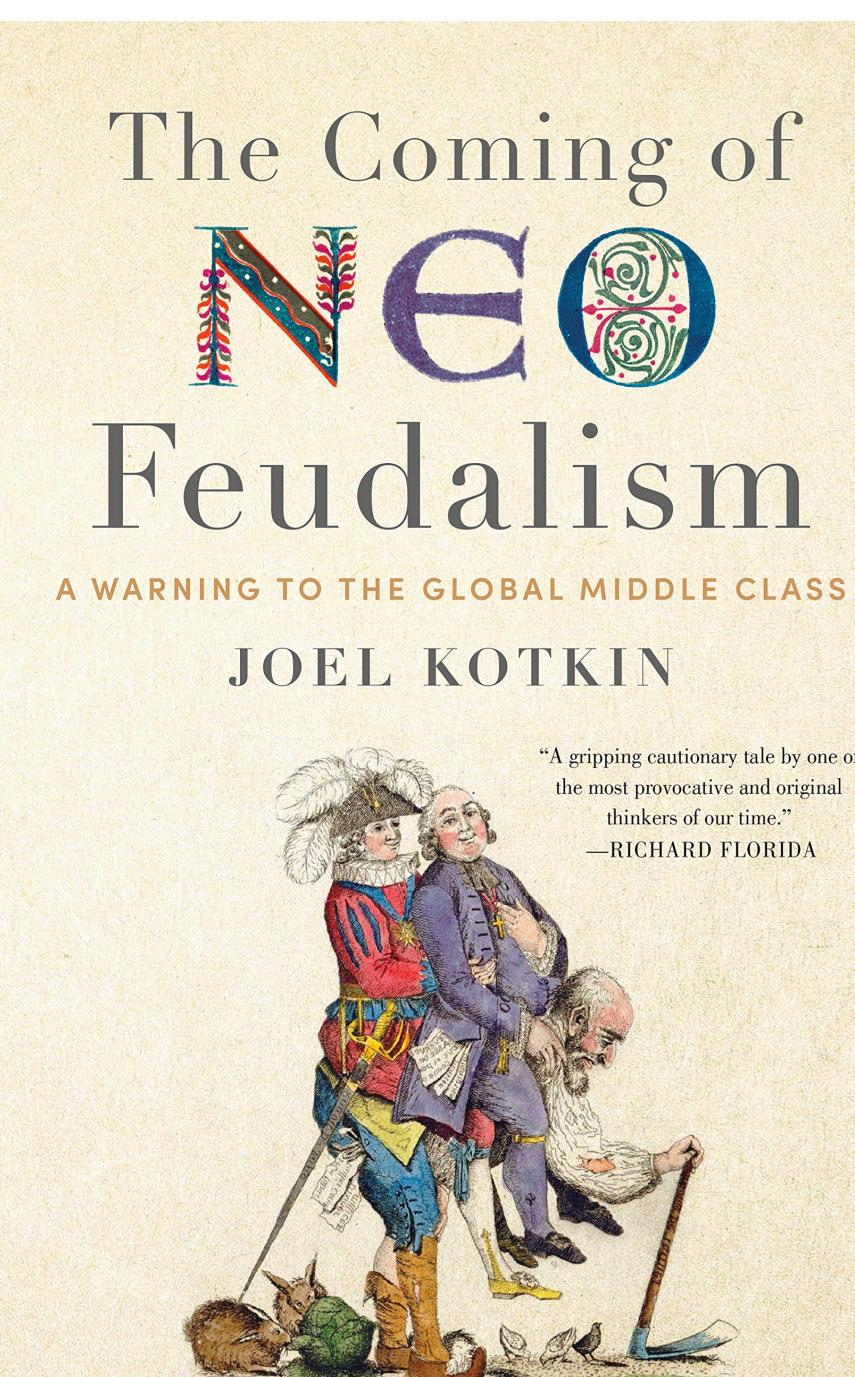
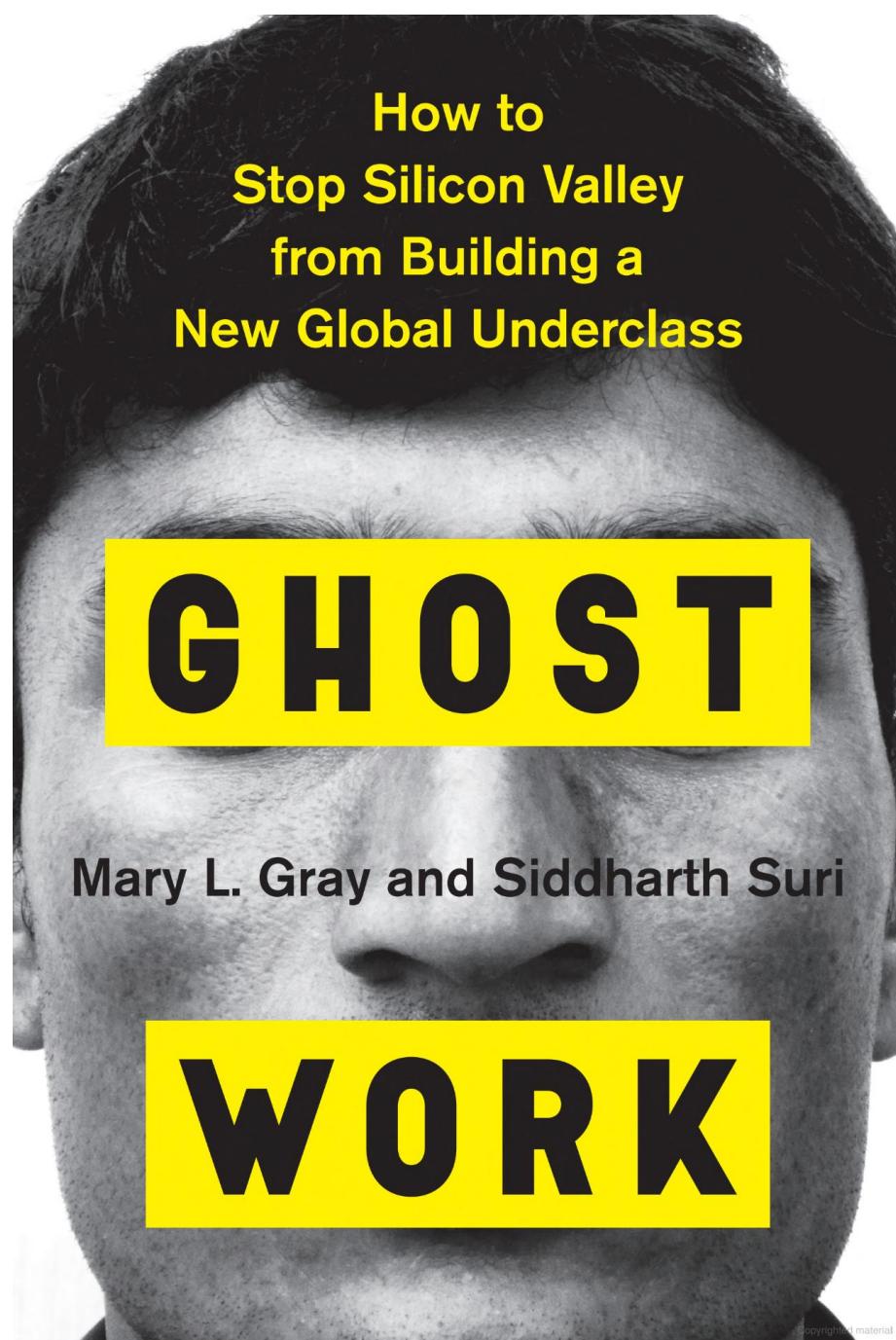
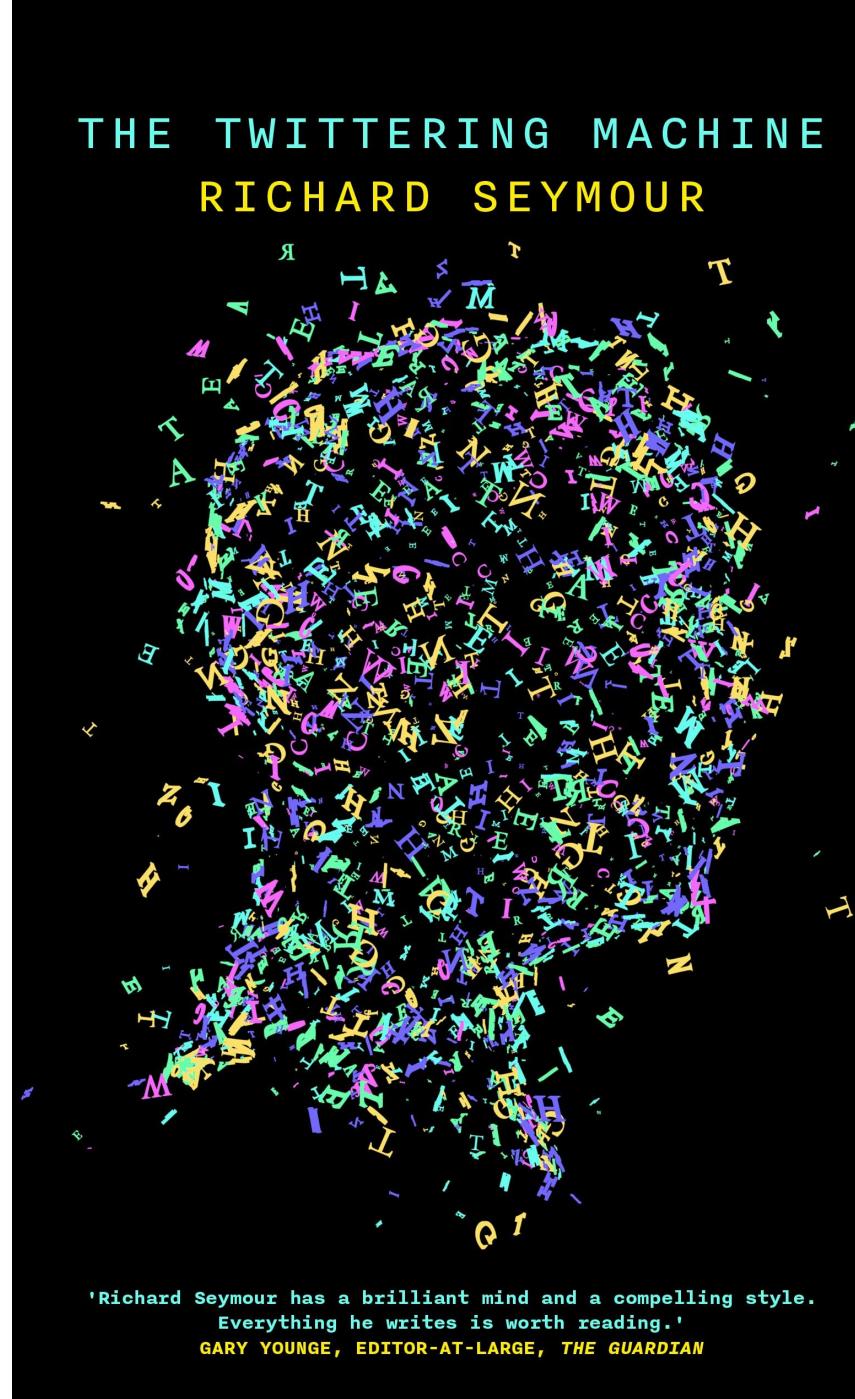
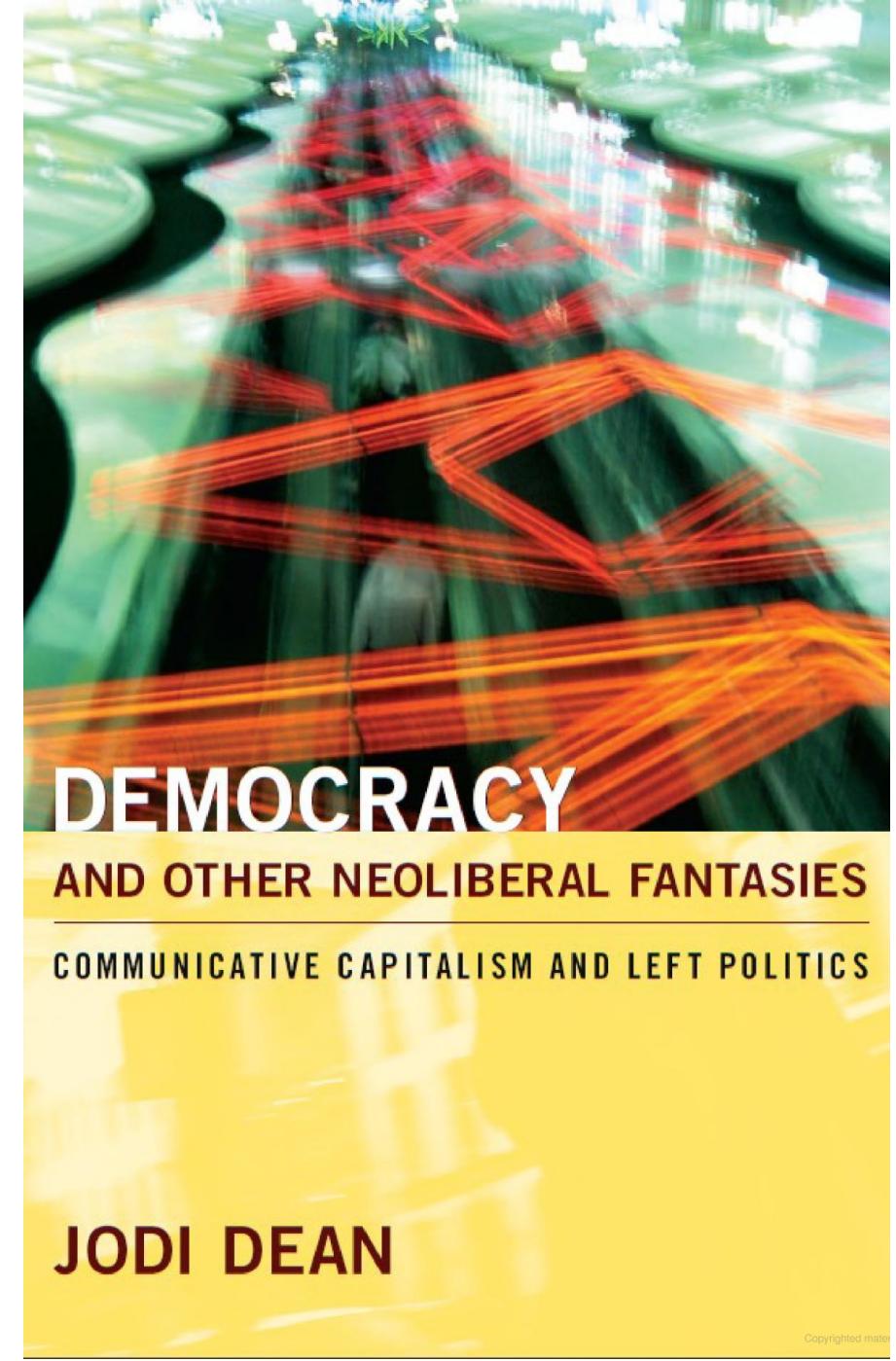
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## Week 7: Theories and Histories: API's

Platform capitalism mediates and reorganises the relationship between capital, labour and resources

- 'Web 2.0''s harnessing of free and cheap inputs extends far further than capturing behavioural and private data
- Assets that corporates in the past had a responsibility to take care of and maintain can now be the responsibility of labourers themselves (their cars, apartments, beautiful bodies and faces)
- These labourers also don't need to be granted the costly privileges of secure contracts, healthcare, parental leave, as they are classed as freelancers and/or voluntarily expressive
- This is where the thin film of the user interface extends its reach into new realms, fusing the software models of resource productivity with those of enthusiasm-based environments, such as TikTok and Instagram



# Week 7: Theories and Histories: API's

## Materialising the analysis

What we see in various books running alongside the notable texts on surveillance and platform capitalism is the emergence of certain key themes, which deepen its premises.

- 1) The effects of the 'event' that occurs in the browser or software GUI (can) move through the whole of society
- 2) Far from being uncomplicatedly the victim of these new forms, the structures of liberal market democracy and national sovereignty act as their enabler, through legislatures, state support/prohibition, etc.
- 3) The vertical infrastructures of the platform have consequences running deep into geography, creating an entire new landscape of fortification, health and illness, wealth and poverty. Philip Neel and others call the most immiserated of those the 'hinterlands' of the new capitalism (often deindustrialised sites where workers are expected to live and exist in readiness for labour, with no social infrastructure)
- 4) The GUI captures data, but it also captures bodies, cars, houses, time, and space; and it does so through a set of forms that are, ultimately, those of the 'gimmick' (artifice, illusion)

**Image:** Jodi Dean, *Democracy and Other Neoliberal Fantasies* (2009), Richard Seymour, *Twittering Machine* (2019), Philip Neel, *Hinterland* (2018), Mary L. Gray and Siddharth Suri, *Ghost Work* (2019), Joel Kotkin, *Neo-feudalism* (2020), Sianne Ngai, *Theory of the Gimmick* (2021)