

ALGORITHMIC MANAGEMENT: POWER AND RESISTANCE IN PLATFORM LABOUR

Lecture for »Challenges and Opportunities of Datafication: Interdisciplinary Perspectives«

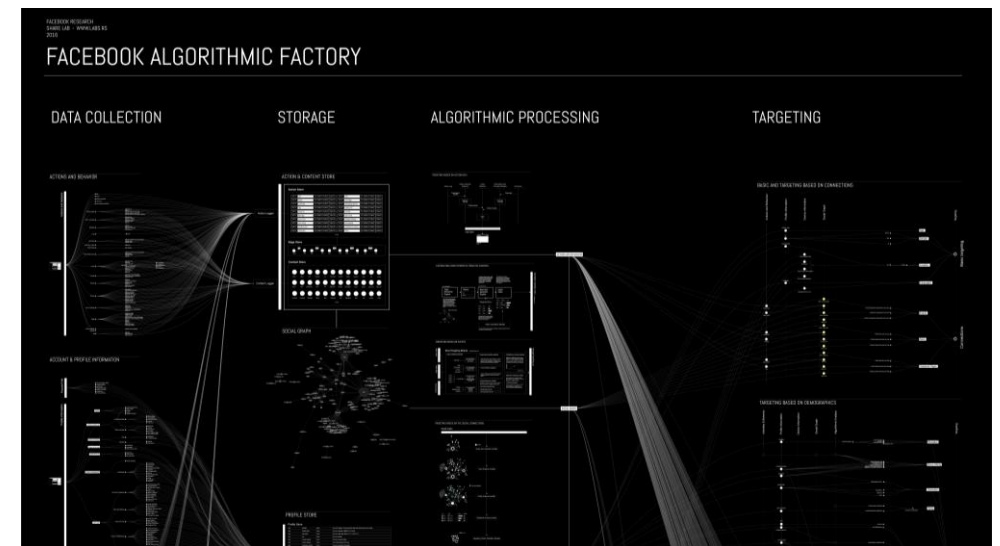
OVERVIEW

- What is algorithmic management and where does it come from?
- What are some of its key features currently in relation to platform labour?
- Where else can we witness its techniques being disseminated to?
- What forms of power does it entail, what forms of resistance have emerged?
- How might it develop in the coming years?



ALGORITHMIC MANAGEMENT

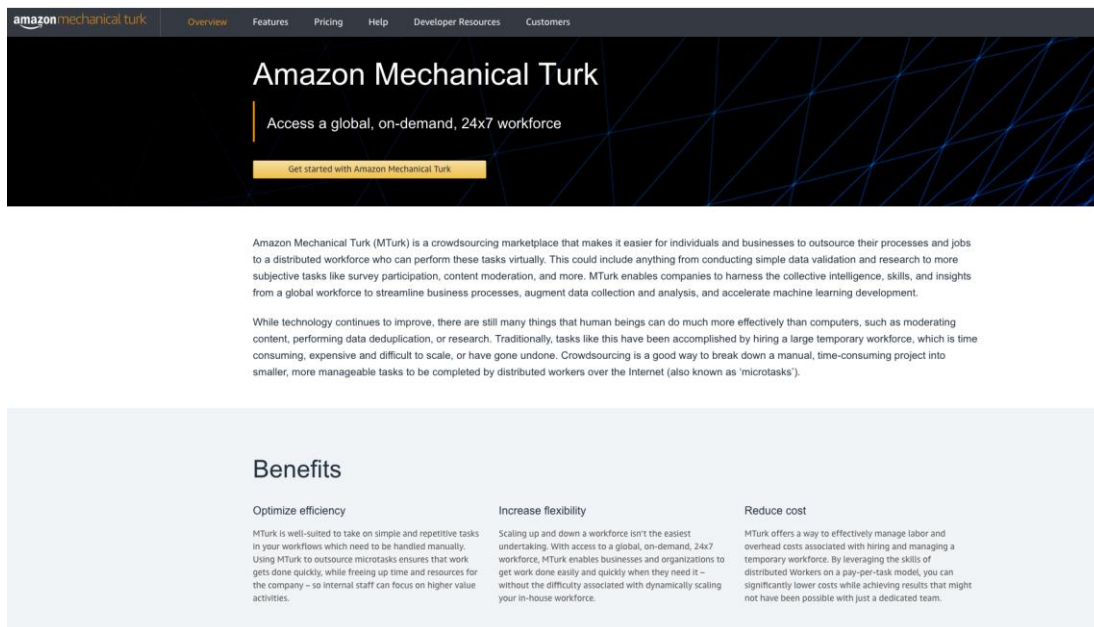
- Appears on platforms for social media, gig and crowd work
- Focused on automating the management of »free labour« (Terranova) or entrepreneurial, freelance labour
- » We call software algorithms that assume managerial functions and surrounding institutional devices that support algorithms in practice *algorithmic management.*« (Lee et al. 2015: 1603)



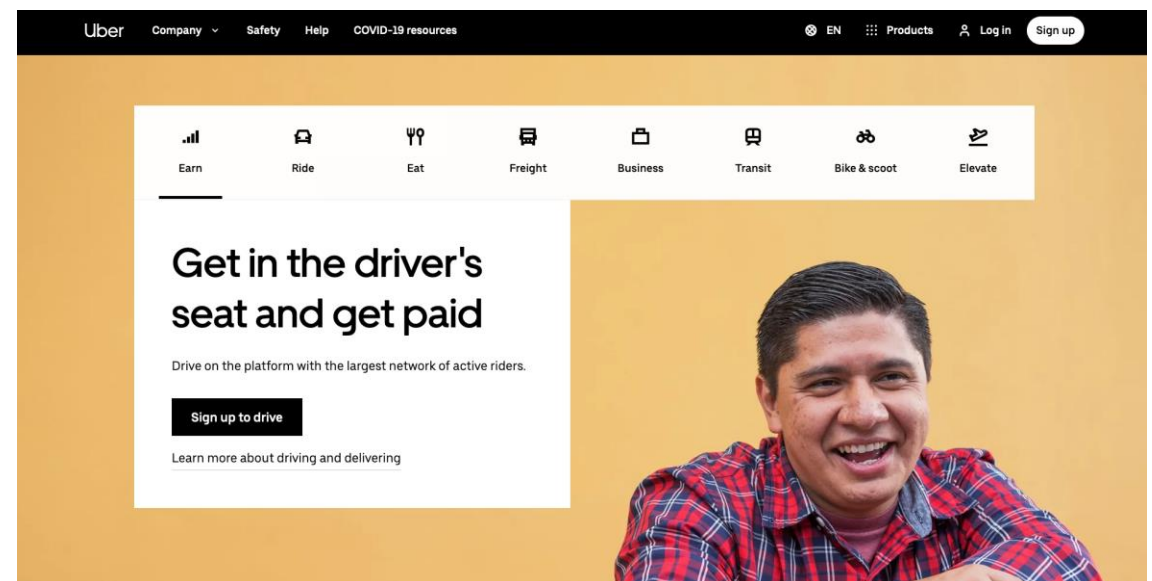
Excerpt from the art project »Facebook Algorithmic Factory« by Vladen Joler, available at <https://labs.rs/en/facebook-algorithmic-factory-immaterial-labour-and-data-harvesting/>



DIGITAL LABOUR, GIG AND CROWD WORK



Website of Amazon Mechanical Turk. » The system allowed for a kind of massively mediated microlabor – large volumes of small, independent tasks distributed to large groups of workers.« (Irani 2015: 225-226)



Website of Uber. » ...the information and power asymmetries produced by the Uber application are fundamental to its ability to structure control over its workers... « (Rosenblat/Stark 2016: 3758)



CAPTURE: DATA AND REPRESENTATION

Two meanings of capture, epistemological (data) and ontological (model):

1. “a computer system’s (figurative) act of acquiring certain data as input, whether from a human operator or from an electronic or electromechanical device”
2. “a representation scheme’s ability to fully, accurately, or “cleanly” express particular semantic notions or distinctions, without reference to the actual taking in of data.” (Agre 1994:106)

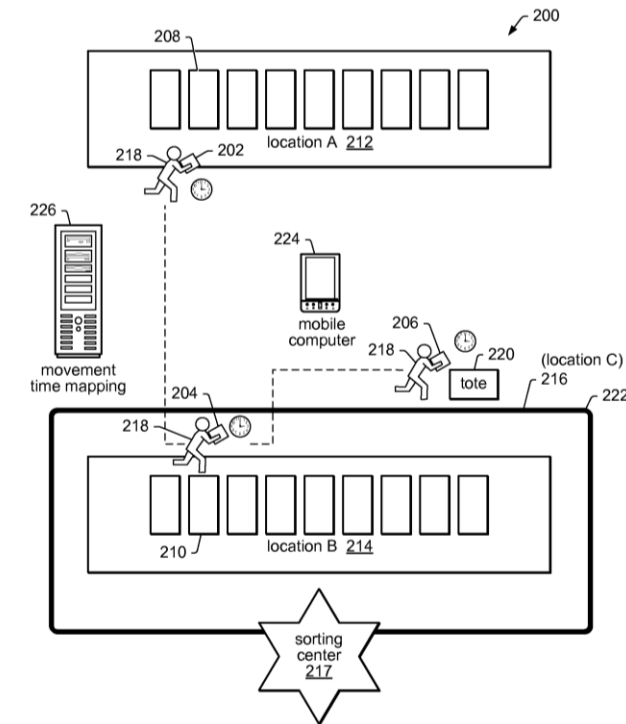
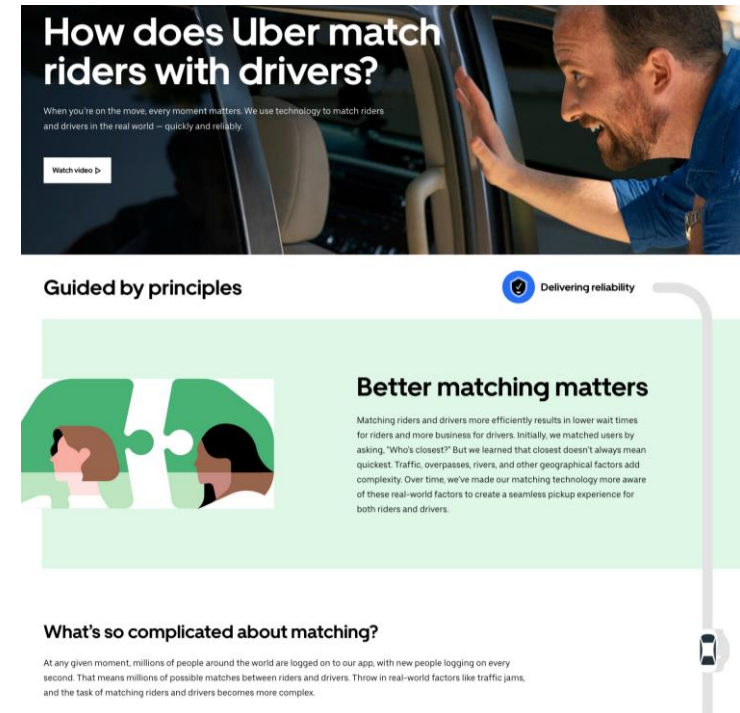


Figure 2 from patent US7243001B2 »Time-based warehouse movement maps« by Amazon Technologies Inc, available at <https://patents.google.com/patent/US7243001B2/en>.



KEY FEATURES OF ALGORITHMIC MANAGEMENT


- **Assessment.** Rating and ranking. Very widespread use of rating and ranking in online culture, now applied to labour.
- **Matching.** Finding the appropriate person for the job, based on lots of data: background, experience, ratings, tracking...
- **Behaviour modulation.** E.g. hypernudging (Yeung). Where one cannot give orders one must devise more amenable ways to influence others' choices and actions.
- **Capture.** Tracking and tracing of activities in order to check for discipline, efficiency, prediction, and to model and plan behaviour.



How does Uber match riders with drivers?

When you're on the move, every moment matters. We use technology to match riders and drivers in the real world – quickly and reliably.

Watch video >

Guided by principles  **Delivering reliability**

Better matching matters

Matching riders and drivers more efficiently results in lower wait times for riders and more business for drivers. Initially, we matched users by asking, "Who's closest?" But we learned that closest doesn't always mean quickest. Traffic, overpasses, rivers, and other geographical factors add complexity. Over time, we've made our matching technology more aware of these real-world factors to create a seamless pickup experience for both riders and drivers.

What's so complicated about matching?

At any given moment, millions of people around the world are logged on to our app, with new people logging on every second. That means millions of possible matches between riders and drivers. Throw in real-world factors like traffic jams, and the task of matching riders and drivers becomes more complex.

Still from Uber's website explaining how its matching algorithm works, at <https://marketplace.uber.com/matching>.



RESISTANCES

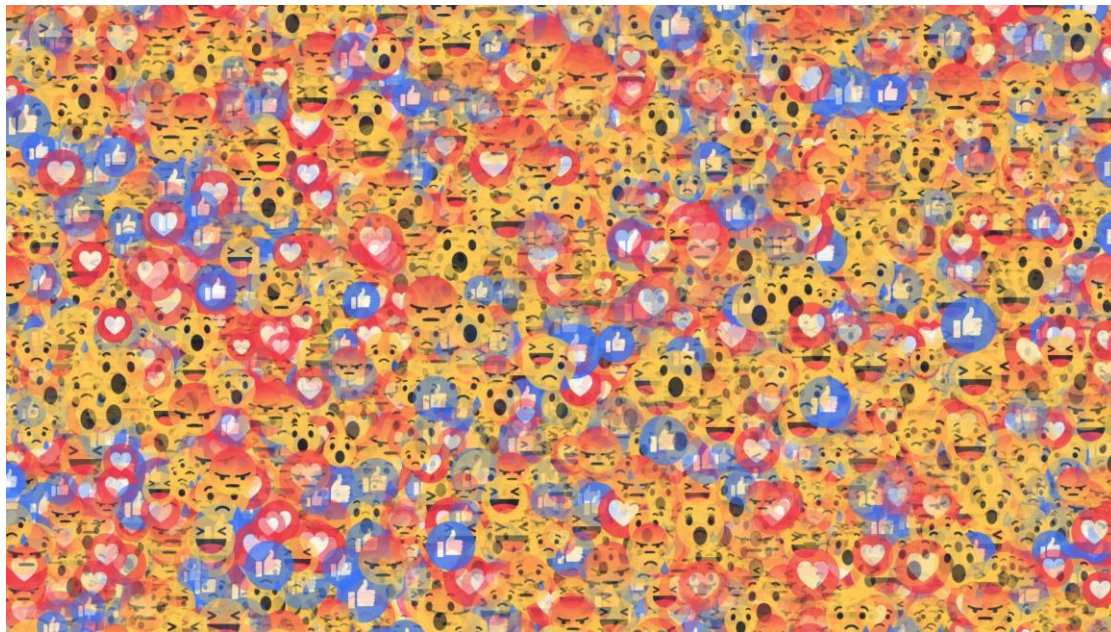
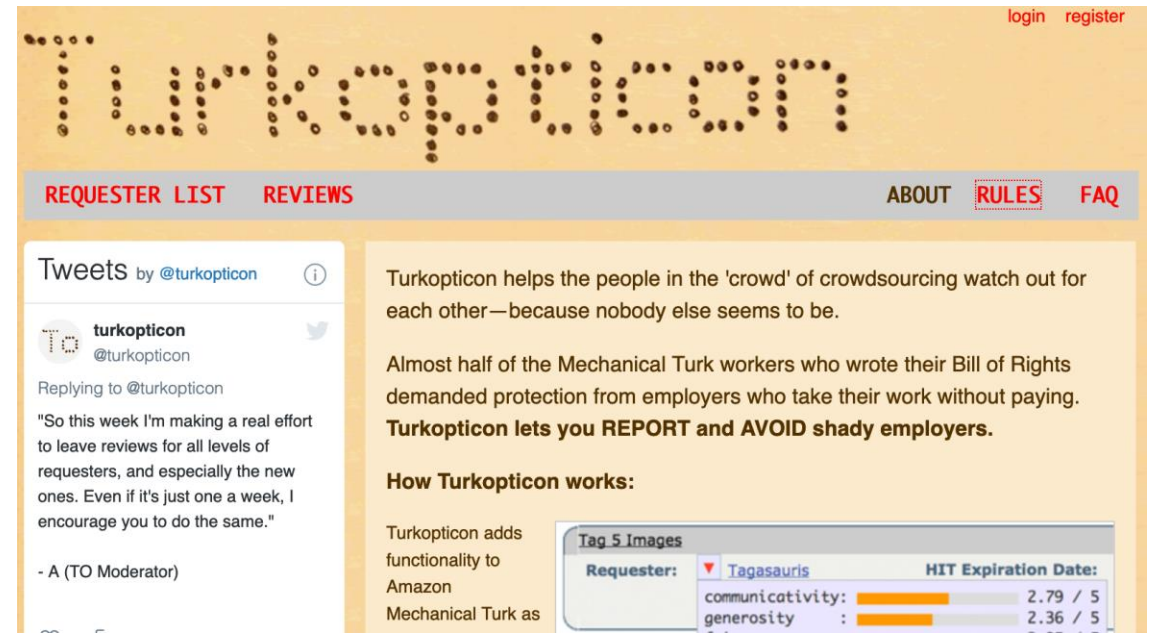


Image of the project »Go Rando« by artist Ben Grosser, at <https://bengrosser.com/projects/go-rando/>. The image represents the noise that Go Rando produces in emotion profiles.



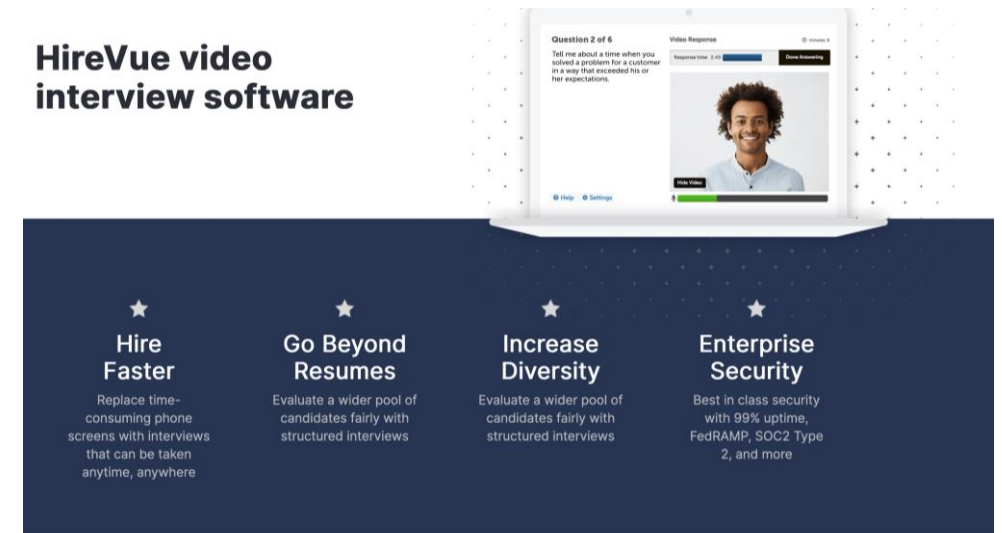
Still from the Turkopticon website, at <https://turkopticon.ucsd.edu/>. The tool enables more information symmetry in allowing ›Turkers‹ to rate requesters.



DEVELOPMENT AND DISSEMINATION

- There are a lot of existing applications of computing in management and organization we can now think of as algorithmic management, e.g. enterprise resource planning software.
- The techniques developed in relation to platform labour are also being applied to labour within organizations.
- Many more functions of management can become algorithmic, e.g. hiring and firing.

HireVue video interview software



Still from HireVue website, at <https://www.hirevue.com/platform/online-video-interviewing-software>.



OUTLOOK

- Datafication proceeds beyond platform labour as more and more workplaces are equipped with sensors and monitoring systems
- Capture, enabled through platformization, allows more and more kinds of labour to be algorithmically managed
- COVID-19 has exacerbated this process of surveilling workers in the name of health
- New forms of resistance are yet to be invented!
- »The privileged, we'll see time and again, are processed more by people, the masses by machines.« (O'Neill 2016: 8)



Recent article in *The Wall Street Journal*, available at <https://www.wsj.com/articles/lockdown-reopen-office-coronavirus-privacy-11588689725>



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