Algorithms of time
How algorithmic management changes the temporalities of work

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Algorithmic management (AM)

- The use of a diverse set of technological tools and techniques to automate managerial roles in companies, including task allocation, monitoring, evaluation, and the disciplining of workers (Kellogg et al., 2020; Wood, 2021)
- AI-enabled oversight and control optimizes efficiency in governing the workforce; datafying the labour process
- Managerial functions executed across scalable and dispersed workforces of independent contractors, reducing the transaction costs involved in hiring and replacing workers
- AM transforms the **temporal structure of work**

Temporal dimensions of work

- Task-oriented work: task completion defines the time, a lack of divide between work and life in conditions of individual control over when and how work is performed.
- Time-centred model: the need for a greater synchronization of labour in industrialized systems of production reconfigured the construction and meaning of hours at work.
- Fragmentation: purchase of labour in small blocks of discontinuous time, matching peaks in workloads. Risks and costs of inefficient time use, fluctuation in demand etc. shifted to the workers. Challenging and blurring boundary standard/non-standard working hours.

Algorithmically managed work
continuous (8h) work day

fragmented time
Restructuring of time in algorithmically managed work

- It becomes possible and cost effective to hire thousands of workers for a day instead of establishing longer-term relationships with just a few of them – unstable and fissured employment relationships.

- Enables, even in traditional employment settings, to time, allocate, and monitor workforces of any size minutely and arbitrarily – reduction of paid work time to a minimum, close matching.

- Time efficiencies predominantly realized in an asymmetric way, with employers able to organize and purchase labour input in shorter time units (atomized and punctuated time) yet conditioned on workers shouldering the related costs and filling in unpaid gaps in punctuated time through incessant availability.

Changes in the logic of organizing and structuring working time:

- **atomized and punctuated time**: paid work is offered in increasingly shorter and scattered time units.

- **incessant availability**: the commitment of work-related time on the side of workers is expanding and lengthening.
Atomized and punctuated time

- Augmented implementation of ‘just-in-time’ work practices among on-demand and highly scalable workforces
- Extreme fragmentation of time, with exceptional precision in the timing of tasks and the matching of staffing levels to workloads
  1. **decomposing** work activities into small time intervals
  2. **squeezing** the time allowed for each task, thus increasing efficiency and the intensity of work
  3. **limiting** to a minimum the time that is paid (between tasks, recuperation, social interactions, reproduction)

- A narrowly devised and precisely measured timing of a task can serve to define and delineate it → timing itself becomes a task (e.g. home care visits defined as discontinuous 15-minute slots; the completion of an order in a warehouse decomposed into 10-second tasks)
- A patchwork of ever-shorter units of paid working time scheduled in irregular and discontinuous patterns according to business demand and intertwined with unpaid or non-work periods
first day in pick, is this good? my learning trainer said i have the highest rate

Jinx1492 • 1 hr. ago

Don’t go slower. You aren’t technically at expected rate as it is. You should find ways to shave off a few seconds from your takt time. My rate was a 550 uph. I made maybe 2 quality errors a week. Don’t listen to people who tell you to slow down.

Vote Reply Share Report Save Follow

Suspicious-Beds2172 • 6 hr. ago

Looks like you have a little over 300 uph, that’s very good. Try and bring your takt time under 10 seconds and you’ll be set

1 Reply Share Report Save Follow

spilo • 6 hr. ago

It’s my 2nd day in pick and I’m 240 uph, 14 takt. And I’m trying to be fast!

Vote Reply Share Report Save Follow

blademaster32432 • 2 hr. ago

If you have the FC games you can also see a general idea of your UPH. Just make sure that instead of shift its on session.
Incessant availability

- Ensuring reliability - workers need to be available to access and procure small and scattered units of paid activity

1. **Individualization** of the employment relationship and working time (see ‘autonomy paradox’, impression of self-directed work, self-employment, competition based on past performance and premium to availability, over-hiring)
2. **Extraction** of work-related activities as unpaid labour
3. **Blurring** of work/non-work boundaries (single device, workplace location, gamification)

- As more activities are removed from the scope of paid employment, their performance encroaches on the private time of workers, creating a blurred category of time that is not paid but still taken up by work-related activities
- Working day expands not because of a perceived necessity to attend to an unfinished task but rather due to a more scattered distribution of paid labour across a day or week
- ... all in the context of inherently asymmetrical power relations between workers and employers
Amazon expands gamification program that encourages warehouse employees to work harder

The program, FC Games, is expanding to at least 20 fulfillment centers in the US

Amazon is expanding an existing program that gamifies warehouse work to encourage its fulfillment center employees to improve their efficiency and compete against others for digital rewards like virtual pets, according to a new report from The Verge.

Going forward

- Time-centred model in industrial society: factory workers had accepted the categories of their employers and learned to fight back within them. Fight not against time but about it (shortening of hours, paid overtime, holidays)

- Fragmented time in contemporary capitalist societies: increase predictability (notice period) and certainty (called off shifts to be paid); minimum granularity

- Algorithmically managed time: safeguarding the barriers work/life, ensuring individual control, limiting granularity, including all work-related activities in paid work time, ensure proper classification of employment relationship, a risk of a downward shift in regulation from markets/employers