Karen Levy
RoboTruckers: The Double Threat of AI for Low-Wage Work

A discussion by

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Content

- Contribution
- Two possible futures for autonomous track driving
- Poetry and Picasso, I do not know!

Contribution

- The paper is mostly concerned with labor substitution in the truckers industry. In the final part it also discussed the rise of the robotrucker based on monitoring technologies.

- In a few words the message is: we will see some substitution but it will take time and it will not be easy, while we will see a lot of monitoring (and that might not be good).

The oyster (may be)

- I always looked at sensor technology as a business opportunity for car producers (can I offer an health check while the driver is sitting in the car) based on the technology development in Torino (transformation of the power train GM research center – significant increase of research in sensors and health);

- I did not appreciate the other (dark) side of the coin that is monitoring / surveillance!

- Finding the right balance between (self/others) security and privacy – see policy cameras discussion late 1990s

Autonomous truck driving

- Autonomous trucks will arrive on a slope not on a cliff – diffusion takes time!:
  - Technological constrains (minor problems are they really?)
  - Human, social, legal, cultural ……
    - More than driving
    - We like to have control or we are scared to loose control
    - New regulation resisted by lobbies will take time to be implemented (US v Europe)
    - Cultural ???
  - Infrastructural ???

Not <u>When</u> but <u>How</u> matters

- "But jobs that consist of many and complex tasks are unlikely to be automated away, as there will always be parts of the work that machines can't do."

The right question is not **<u>when</u>** AV will replace human trucker driving but **<u>how</u>** AI will *change what work looks like* over the long haul (we might still wonder how long will it be?)

Two ways of automation: Handoff

- **<u>Handoff in trucking</u>**: where are the cost reductions?
  - Salary decrease – if you sleep why should I pay you (but in fact you do not sleep)
  - Other work for the company (what skills are needed).

Two ways of automation: Handoff
An other oyster (may be)

- <u>**Handoff in trucking:**</u> other bigger problems
  - The costs of **unlearning** and the relative importance across jobs:

    cooking v cycling – typical example of tacit knowledge but with very different unlearning properties: once you learnt cycling you will always be able at it, while if you stop cooking for a while it will take you a lot of untasteful meals to learn it again

  - **Passive fatigues** if you are used to drive fast driving slow becomes dangerous

Two ways of automation: Network

- **Network coordination:**
  - No more driver on the truck (Uber model) – requires dedicated lanes for Uber like trucks that can communicate, second lane for "normal" trucks and other faster lanes for cars ….. New infrastructure **by when**? **Paid by whom**?
  - The long-haul should be **very long indeed** I do not know in the US but that's more difficult in Europe (we still have different road signals that confuse humans – highway in France in blue, state roads in green, the opposite in Italy!)

Two ways of automation: Network

- **Network coordination:** Isn't this thing called a train system? See environmental consequences and constraints

Perception of improbable risks

- Are autonomous trucks comparable to nuclear energy? Very very safe but if they fail very very dangerous (risk modelling on "catastrophic" risks)
- People do not know that planes are flown by robots most of the time if not there would be much fewer people flying.

A few comments: I do not know if Poetry or Picasso

Technology is everywhere – may be a bit overrated

- **"**You can see self driving vehicles nowhere but in the reports that predict their arrival"

34 years after Solow's paradox we might have got drunk by technology ….

Why did a consider to become a trucker at 18?

- Why you want to be a trucker – not for all but certainly for some?
  - Going home at the end of a 9to5 job is not **the** priority
  - Make good money
  - Being on the road free
  - Having two or more families in different places
  - ……

The meaning of a work

- What "driving" means is likely to change:
    - Less risky
    - Less good money
    - Less freedom
    - A lot of surveillance
    - …..
- Fewer (and different) people will want to do this brave new job

Policy implications

- What are the policy implications?
    - Mining used to employ a lot of workers now there are almost no people down the pit (at least in most advanced countries), is it bad or good?
    - It is disruptive but it will be a slow transition (time for action).
    - What the people that liked to be a trucker will do in the future? Economic policy professor?