**Paper Review**

**Paper Title:** The AI Layoff Trap

**Author:** Brett Hemenway Falk

Gerry Tsoukalas

**Publication Date:** June 3, 2026

**Source:** https://arxiv.org/abs/2603.20617

Falk, a professor of computer and information sciences at University of Pennsylvania, and Tsoukalas, a professor of technology at Boston University, have raised a concern in term of theoretical economics when AI displaces the human workers faster than the economy can reabsorb them. Even AI will not entirely supplant the human workers, it drastically affects the labor market and culminate in a market failure. This paper identifies a critical market failure—a **demand externality**—where the rational pursuit of cost-efficiency by individual firms leads to a collectively destructive outcome.

The core of the issue is that while AI automation allows firms to significantly reduce labor costs, it simultaneously erodes the consumer demand upon which those same firms depend. In a competitive market, firms are trapped in a "Red Queen" effect: each firm captures 100% of the cost savings from its own automation but bears only a small fraction of the resulting aggregate demand loss; the rest of that loss is offloaded onto its rivals.

Key findings from the analysis include:

- **The Rational Trap:** Even if firms foresee that mass layoffs will destroy their customer base, they cannot stop. For a competitive firm, automating is a strictly dominant strategy; if they don't automate, they lose market share to rivals who do.
- **Deadweight Loss:** This over-automation is not merely a transfer of wealth from workers to owners. Instead, it creates a deadweight loss that makes both workers and firm owners worse off than they would be under a cooperative, more restrained approach.
- **Policy Limitations:** Popular interventions such as Universal Basic Income (UBI) or Capital Income Taxes fail to solve the problem because they do not alter the marginal incentive to automate.
- **The Economic Solution:** The researchers conclude that a **Pigouvian automation tax** is the only instrument that fully corrects this distortion by forcing firms to internalize the demand they destroy, aligning private incentives with the collective good.

According to this paper, the following occurs regarding wages and income in the post-labor economy:

- **Elimination of Wage Income:** As AI becomes capable of performing most human tasks at a significantly lower cost, human wages are effectively eliminated and do not return. Because the productivity gains of AI are so vast, even a social planner who values worker welfare would eventually favor full automation, making the displacement of human labor permanent.
- **Shift from Labor to Capital Income:** The income that was previously distributed to workers as wages shifts entirely toward firm owners in the form of profits. This creates a situation where firms reach "boundless productivity" but risk "zero demand" if that income is not recycled back into the economy.
- **The Replacement of Wages with Transfers:** Since wages no longer provide a mechanism for distributing purchasing power, the economy must rely on a "demand floor" set by autonomous spending and replaced income.
- **Policy Realignment:** While a Pigouvian automation tax is useful during the transition to slow down layoffs, it loses its purpose in the post-labor economy because there is no longer a "wedge" between what firms want to do and what is socially optimal. Instead, the focus shifts to using profit-funded UBI to return a portion of the owners' surplus to households, which benefits workers directly and firms indirectly by rebuilding the customer base.

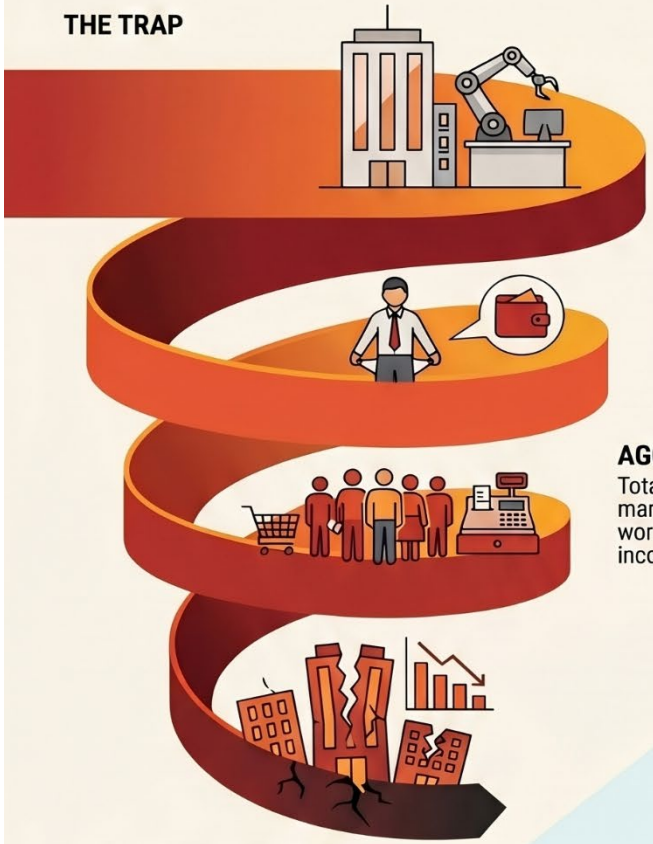
In the long run, the post-labor economy is described as one where **market-driven wages disappear**, and the continued functioning of the economy depends on mandatory redistribution to sustain consumer demand. Last but not least, an infographic is created to help visualize these complex economic relationships for a general audience.

Wanvitu Soranarak
June 26, 2026

# The AI Layoff Trap:

## How Competitive Automation Destroys the Market

### THE TRAP



**INDIVIDUAL GAIN VIA AUTOMATION**

A firm replaces human workers with AI to eliminate wage costs and increase short-term margins.

**THE INCOME GAP**

Displaced workers lose their paychecks; because reemployment is slow, this income is not immediately replaced in the economy.

**AGGREGATE DEMAND DROP**

Total consumer spending in the market falls as the pool of workers with disposable income shrinks.

**THE COLLECTIVE LOSS**

All firms, including the first one to automate, see their sales fall as the revenue base they all share is eroded.

**THE SOLUTION**
(ECONOMIC STABILIZATION)

## THE PIGOUVIAN AUTOMATION TAX

A per-task levy set equal to the uninternalized demand loss, forcing firms to account for the social cost of displacement.

**FUNDING THE FUTURE**

Tax revenues are used to fund worker retraining and upskilling, helping displaced staff transition into higher-paying, stable roles.

**STABILIZING THE MARKET**

By correcting the marginal incentive to over-automate, the economy avoids the "demand cliff" and preserves the consumer base.

### POLICY COMPARISON: FIXING THE DEMAND EXTERNALITY

| Policy Instrument | Corrects the "Trap"? | Primary Function |
|---|---|---|
| Universal Basic Income (UBI) | No | Cushions living standards but doesn't change automation incentives. |
| Capital Income Tax | No | Taxes profit levels but fails to address the per-task automation margin. |
| **Automation Tax** | **Yes** | **Directly aligns private incentives with collective economic health.** |