

The Missing Mechanism

Warnings about AI can arrive long before material protection. An analysis of institutional latency, labour evidence and the mechanism that remains missing.

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AI researchers, economists and the Vatican agree that society must prepare for artificial intelligence. But a warning is not a distribution system, and publication is not protection.

The line was almost too good: three years instead of sixty. It would have given this article a title, a clock and a historical comparison in six words.

It also was not in the source.

The statement released through Stanford Digital Economy Lab on 13 July 2026 does not say that artificial intelligence will transform the economy in three years, nor that the Industrial Revolution took sixty. It says that AI may become radically more powerful over the next ten years and could produce a transformation larger than the Industrial Revolution on a vastly shorter time frame. It calls for research, incentives, guardrails and institutions, but it does not name a mechanism for allocating the gains or losses created by that transformation. The statement itself is 88 words. [1]

The false comparison had entered the research through upstream summarisation rather than the statement. Removing it did not kill the article. It revealed the more important question underneath it.

Two warnings

Fifty-nine days before the Stanford statement, Pope Leo XIV issued *Magnifica Humanitas*, an encyclical on safeguarding the human person in the age of artificial intelligence. The historical reference was explicit: 2026 marked the 135th anniversary of *Rerum Novarum*, Leo XIII's 1891 encyclical on capital and labour. [2]

The Vatican produced a long moral document. Stanford published a short coalition statement. Both warn that artificial intelligence could transform work and economic life. Both are meaningful signs that institutions are beginning to recognise the stakes.

Neither document, however, can inspect a workplace, negotiate a collective agreement, collect a tax or guarantee an income. That is not hypocrisy. An encyclical establishes principles; a statement assembles a coalition. Neither genre is supposed to function as labour legislation or a public budget.

But the mechanism remains missing.

Publishing first is not protecting first

Warnings belong to one kind of institutional time. Protection belongs to another.

Rhetorical latency is the time it takes an institution to recognise and publicly name a problem. Its output may be a speech, declaration, report, letter or encyclical.

Rule-making latency is the additional time required for an institution with legal or contractual authority to create a law, agreement, standard or budget.

Implementation latency covers the staff, systems, procedures and infrastructure required to make that rule operational.

Protective latency ends only when an affected person receives a material protection that works in practice.

This distinction matters because nineteenth-century workers were not harmed primarily by a shortage of moral language. They were harmed during the distance between recognition and protection.

How late was *Rerum Novarum*?

Rerum Novarum was published on 15 May 1891. [3] How late it arrived depends on where the historical clock begins.

The British Factory Act of 1833 created a four-person inspectorate with enforcement powers, although Parliament's own history notes that four inspectors were far too few for roughly 4,000 mills. [4] The encyclical appeared fifty-eight years later.

The Mines and Collieries Act of 1842 prohibited underground work for women and girls and for boys under ten. [5] The Factory Act of 1847 established a ten-hour objective for women and young people. [6] Against those baselines, the delay was forty-nine and forty-four years.

Germany gives a different result. Its statutory sickness insurance was introduced in 1883, accident insurance in 1884, and invalidity and old-age insurance in 1889. The German labour ministry records all three dates together. [7] Against those baselines, *Rerum Novarum* followed material state protections by between two and eight years.

A Catholic defender could reasonably object that Britain and Germany were not Rome. Italy industrialised later, and measuring Leo XIII against Manchester or Berlin can impose a foreign clock on the Church.

But *Rerum Novarum* did not present itself as a local intervention into Rome. It addressed the condition of workers, capital and social order as universal teaching. Its opening described industrial expansion, concentrated fortunes, worker organisation and the conflict between capital and labour. Once a document claims that scale, the industrial societies in which the social question had already become most developed are legitimate—though not exclusive—baselines.

The exact delay remains baseline-dependent. The larger point is narrower: by 1891, recognition entered a field already reshaped by legislation, inspection, insurance and worker organisation.

Is Leo XIV early?

That history does not prove that Leo XIV is early this time. Latency is a distance between two events, and only one side of the present comparison is complete.

In 1891, industrialisation had already transformed society before the encyclical appeared. In 2026, the future speed and extent of AI diffusion remain uncertain. Technical exposure is not adoption. Adoption is not task displacement. Task displacement is not the same as a lost job.

The evidence is not empty, but it is mixed.

The International Labour Organization's 2025 global index estimates that one in four workers is in an occupation with some exposure to generative AI. The report explicitly treats this as potential exposure, not observed job loss, and judges job transformation more likely than full replacement because most occupations still contain tasks requiring human input. The report combines task data, worker input and expert review. [8]

An OECD survey of more than 5,000 small and medium-sized firms in seven countries found generative AI in use at 31 per cent of firms. Among users, 83 per cent reported no change in overall staffing need; 9 per cent reported a decrease and 6 per cent an increase. The survey was conducted in late 2024. [9]

Stanford's June 2026 AI Economic Indicators report adds a less comfortable signal. In its fixed sample of 25,000 firms using ADP payroll services, aggregate differences between more and less AI-exposed occupations remained modest. Among workers aged 22 to 25, however, employment in the most exposed occupations contracted while the least exposed group grew. The authors also stress that the sample is not the entire US labour market and that competing studies still disagree about causation and scale. The report presents the result as a canary, not a national verdict. [10]

These findings do not cancel one another. They show why broad claims of either mass unemployment or harmless transition are premature. The aggregate picture can remain calm while a narrower entry route deteriorates.

Uncertainty is not a reason to discard preparation. It is a reason to prefer mechanisms that remain useful across several possible futures.

The blank field

The Stanford statement asks governments and societies to conduct research and build incentives, guardrails and institutions. Those requests are reasonable, but they leave a basic economic question unanswered:

When the same output requires fewer paid human hours, who receives the saved time and value?

A saved hour does not disappear.

It may return to the worker as leisure or a shorter working week. It may become a higher production target inside the same paid day. It may eliminate a position, increase profit, lower consumer prices, improve a public service or generate public revenue.

Most organisations can describe the result as productivity without disclosing which transfer occurred.

That is the missing mechanism.

Make the transfer visible

The Saved Hours Doctrine [11] already proposes a limited first step: an organisation introducing labour-saving AI should estimate the human labour removed from a defined process and account for the destination of the resulting value. The deeper measurement model is archived separately under a DOI. [12] This article does not originate it.

Applied here, the disclosure would record five things:

1. the previous labour requirement for a defined output;
2. the post-deployment labour requirement;
3. the estimated hours saved, including uncertainty;
4. changes in volume, quality or service level;
5. how the resulting time and value were allocated.

The estimate would need methods, assumptions and worker review. It would also need a rule against quietly redefining output until every saved hour disappears into a higher target.

Measurement is not justice. It does not decide whether the gain should become wages, time, ownership, lower prices, public capacity or profit. It turns an invisible transfer into something workers, firms and public institutions can argue over.

Without that record, “sharing productivity” remains a preference. With it, allocation can become a bargaining object.

Protection before the category arrives

Disclosure begins inside an organisation. It does not by itself protect someone whose hours disappear gradually, whose first job is never created, or whose income erodes before an unemployment system recognises an event.

A separate Hedegreen Research proposal, Minimum Habitat, asks whether access to housing, food, basic energy, connectivity and essential services can be protected without waiting for a clean labour-market category. That architecture is not designed in this article. Its relevance here is only temporal: protection should not begin only after damage becomes administratively legible.

The difference between warning and protection

It matters that the Vatican is discussing artificial intelligence before its complete social consequences are known. It matters that economists, researchers and technology figures are asking governments to prepare. Rhetorical recognition helps make a possible future problem politically visible.

But recognition is the beginning of institutional work, not its completion.

An encyclical is not a labour inspectorate. A coalition statement is not a social-insurance system. A warning is not a distribution mechanism.

The speed of the AI transition remains uncertain. The absence of an allocation record is observable now.

“Act now” becomes meaningful only when it identifies:

- who must act;
- what authority that actor possesses;
- which resource it controls;
- who receives the benefit;
- and how the decision will be enforced.

Prominent institutions have begun to recognise the question.

That is worth recording.

It is not yet protection.

Sources and method note

1. *We Must Act Now* — full statement (<https://www.wemustactnow.ai/>).
2. Pope Leo XIV, *Magnifica Humanitas* — open source (<https://www.vatican.va/content/leo-xiv/en/encyclicals/documents/20260515-magnifica-humanitas.html>).
3. Pope Leo XIII, *Rerum Novarum* — open source (https://www.vatican.va/content/leo-xiii/en/encyclicals/documents/hf_l-xiii_enc_15051891_rerum-novarum.html).
4. UK Parliament, Factory Act 1833 — open source (<https://www.parliament.uk/about/living-heritage/transformingsociety/livinglearning/19thcentury/overview/factoryact/>).
5. UK Parliament, Mines and Collieries Act 1842 — open source (<https://www.parliament.uk/about/living-heritage/transformingsociety/livinglearning/19thcentury/overview/coalmines/>).
6. UK Parliament, later factory legislation and the 1847 Ten Hours Act — open source (<https://www.parliament.uk/about/living-heritage/transformingsociety/livinglearning/19thcentury/overview/laterfactoryleg/>).
7. German Federal Ministry of Labour and Social Affairs, statutory social-insurance history — open source (<https://www.bmas.de/DE/Soziales/Rente-und-Altersvorsorge/Gesetzliche->

[Rentenversicherung/Geschichte-Gesetzliche-Rentenversicherung/geschichte-der-gesetzlichen-rentenversicherung.html](#)).

8. International Labour Organization, *Generative AI and Jobs: A Refined Global Index of Occupational Exposure* — [open source](#) (<https://www.ilo.org/publications/generative-ai-and-jobs-refined-global-index-occupational-exposure>).
9. OECD, *Generative AI and the SME Workforce* — [open source](#) (https://www.oecd.org/en/publications/generative-ai-and-the-sme-workforce_2d08b99d-en.html).
10. Stanford Digital Economy Lab, *AI Economic Indicators: June 2026 Update* — [open source](#) (<https://digitaleconomy.stanford.edu/publication/ai-economic-indicators-june-2026-update/>).
11. Hedegreen Research, *Where Did the Saved Hours Go?* — [read article](#) (<https://hedegreenresearch.com/articles/the-saved-hours-doctrine/>).
12. *The Saved Hours Doctrine*, archived measurement model — [open DOI record](#) (<https://doi.org/10.5281/zenodo.20400880>).

The four latency types and the five-question mechanism test are analytical frameworks developed in this article. The historical comparisons depend on the chosen baseline, and the current labour evidence does not establish mass unemployment or a single causal effect from AI.

— Dennis Hedegreen, trying to see the structure

RELATION MEMORY

EXTENDS [Where Did the Saved Hours Go?](#) · Uses Saved Hours to connect warning with protection.

NEARBY [The Electricity Under AI Labour](#) · Both expose the material denominator under AI.

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