

THE IMPACT OF ARTIFICIAL INTELLIGENCE ON HUMAN LABOUR AND DIGNITY: A REFLECTION IN LIGHT OF *RERUM NOVARUM* OF POPE LEO XIII

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Introduction

In 1891 A.D., the world was captured by the Industrial Revolution. Workers faced difficult conditions, long hours, and poverty, while factory owners accumulated vast wealth. This struggle which is known as the "Social Question", encouraged Pope Leo XIII to write the encyclical *Rerum Novarum* which means On Capital and Labour.¹

This Very important document set out the Church's fundamental response, defending the rights and dignity of every worker. Here Pope Leo offered a moral path forward, rejecting both the excesses of unrestrained, capitalist individualism (which treated labour as a mere object) and the dangers of extreme socialist ideologies. So through this document Pope Leo explains four main principles that are applicable even today, they are,

- Dignity of Work
- Just Wage
- The Right to Organize
- Moral Responsibilities

1. The Dignity of Work: First of all work is not just a way to earn money but it is a way for humans to express their innate dignity and creativity.
2. The Just Wage: Wages must be sufficient to support the worker and their family, allowing them to live a truly dignified life.
3. The Right to Organize: Workers have a natural right to form associations or unions to protect their interests.
4. Moral Responsibility: Both employers and the State have moral duties to protect the most vulnerable workers and ensure the common good.

Today, we face a new, equally profound transformation to the Industrial Revolution that is the rise of Artificial Intelligence (AI). Machines are taking over cognitive and physical tasks at an unprecedented scale. This raises urgent moral and ethical questions: How do the timeless principles of *Rerum Novarum* guide us through this technological shift? How do we prevent AI from reducing human labour to a mechanized, monitored input? Hence in this paper I will explain

¹ May 15, 1891 A.D.

the specific threats AI poses to human labour and dignity, and propose solutions firmly grounded in the social teachings of the Church.

The Foundation: The Image of God and Human Dignity

As we know the starting point for Catholic Social Teaching is the belief that every person is made in the image of God (*imago Dei*).² This means, every human being has an inherent, untouchable dignity that is separate from their usefulness or productivity. As St. Thomas Aquinas explains, “Man is said to be the image of GOD in as much as the image implies an intelligent being endowed with free will and self movement.”³

Rerum Novarum also clearly prescribed that labour is not a commodity to be bought and sold like a raw material. Leo XIII says that a worker’s labour “is personal ... necessary ... each has a natural right to procure what is required in order to live.”⁴ The value of the worker's time is tied to the value of the person, not just the market's changing demands.

So as we live in this so called age of the AI, when systems can replace human function, we must protect the dignity that surpasses function. We must hold fast to the truth that human beings are not just mere tools or any other machine but they are subjects with moral agency, creativity, and spiritual depth.

Negative Impacts of AI on Labour & Human Dignity

Artificial intelligence⁵ affects workers in three main ways: taking their jobs away, making their remaining jobs unstable, and taking away their control. These impacts threaten the very foundation of human dignity in work, turning the worker into a monitored function rather than a respected person.

2.1 Job Displacement & Unemployment

As AI gets advance day by day, it also starts to automate tasks that humans used to do. “This is not only a problem for factory workers or people on a production line anymore but also it now affects office jobs, too.”⁶

E.g.: AI systems can now read thousands of legal documents faster than any paralegal. They can analyse big amounts of data in few seconds, replacing jobs in accounting or research. Customer service jobs, where people used to talk on the phone, are being taken over by sophisticated chatbots

² Genesis 1:26

³ Summa Theologica, I, q.93, a.1

⁴ Rerum Novarum 44

⁵ Artificial Intelligence (AI) is the ability of machines or computer systems to perform tasks that typically require human intelligence, such as learning, reasoning, problem-solving, and decision-making. It mimics cognitive functions to analyze data, recognize patterns, and make informed actions, often improving through experience (machine learning).

⁶ Yossi Sheffi, *The Magic Conveyor Belt: Supply Chains, A.I., and The Future of Work* (Cambridge, MA: MIT Press, 2023), 150.

like, ChatGPT, Google Gemini, etc. that can answer most questions. In transportation, self-driving trucks and cars threaten the jobs of millions of drivers.⁷

When a person loses a job because a machine took over, it is more than just losing a salary. Unemployment is a wound to human dignity. Work gives us purpose and a way to contribute to society. When that is taken away, people can feel useless, invisible, or like they have failed. So as Pope Francis warns us about this by saying that, “if technology advances, but does not make life better for everyone, we can not truly call it *progress*.”⁸ He also said that when a society cannot provide opportunities for people to work, “something is wrong with that society.”⁹ We must ensure that our move toward AI does not leave millions of people feeling wounded and without a place in the economy.

2.2 Dangerous Work & Undermined Wages

Even when jobs are not totally replaced, AI often changes them for the worse, making them risky. This is very clear in the gig economy.¹⁰

These platforms use powerful AI algorithms which means a set of rules that computers follow to control every part of the worker's life. The algorithm decides who gets a job, how much they get paid for it, and how fast they must do it. Workers are often treated as independent contractors, not employees. This means they are not given basic protections that *Rerum Novarum* says are necessary, like benefits, health insurance, paid sick leave, or a steady schedule.

The central teaching of *Rerum Novarum* is that wages must be just and they must be enough to support a worker and their family in dignity.¹¹ When an algorithm can constantly adjust pay downward based on supply and demand, the worker is pitted against the machine and often receives very low, unstable pay. Pope Leo warned against employers who exploit the worker's need for money. Today, the algorithm acts as the unfair boss, creating work that is temporary, poorly paid, and lacks respect for the worker's family needs. The worker's life becomes unstable, dictated by the constantly shifting demands of an unseen computer program.

2.3 Dehumanization & Loss of Control

When AI takes over management, it can lead to dehumanization that treat people less like human beings and more like machines. This happens through forceful observation and control.

AI systems use cameras, sensors, and software to monitor workers constantly. They track every minute, every keystroke, and every decision. For warehouse workers, the AI may dictate the exact path they must walk and the exact seconds they have to pick up an item. If a worker slows down for a moment, the system flags them.

⁷ Cf. Ibid.

⁸ Pope Francis, message to World Economic Forum: “Human dignity must never be violated for the sake of efficiency.”

⁹ Ibid.

¹⁰ The gig economy is a system where people earn income through short-term, flexible jobs, often via digital platforms.

¹¹ *Rerum Novarum* 45

This leaves the worker with no ability to make choices and direct their own work. The worker becomes trapped in a system where they have no power to change their schedule, adjust their pace, or use their own judgment. Their worth is measured only by the numbers the AI spits out. *Rerum Novarum* teaches that work must respect the person and not treat them as a "mere instrument."¹² When people are forced to work at a pace only a machine can maintain, they are being treated as instruments. This constant pressure and lack of control can damage mental health and make work feel alienating. The person is reduced to a "cog in the machine," forgetting that they are made in God's image, with unique creativity and intelligence that goes beyond simple, repeatable tasks.¹³

Solutions from *Rerum Novarum* & Later Papal Teachings

The challenge is to confirm that AI serves humanity, not the other way around. *Rerum Novarum* provides the plan for a noble response to computerization.

3.1 Just Wages & Social Protection

The requirement for a living wage in *Rerum Novarum* must be updated for an AI-driven economy. This means that as productivity soars due to automation, the wealth generated must be shared to prevent mass destitution. Solutions include advocating for Universal Basic Services (UBS) ensuring basic needs like housing, healthcare, and education are met, regardless of employment status or exploring models for Universal Basic Income (UBI) to provide a safety net when jobs vanish. When technological advancement benefits society as a whole, society has a responsibility to care for those displaced by that very progress.

3.2 Right to Organize & Collective Voice

Rerum Novarum strongly defends the right of workers to form associations or unions to protect their interests.⁷ In the AI era, this means fighting for algorithmic governance. Workers must have a collective voice and a seat at the table to participate in the design, implementation, and oversight of the algorithms that now manage their work. No algorithmic system should be deployed without consultation with the people it affects, ensuring the system respects human hours, breaks, and dignity.

3.3 Role of the State & Regulation

Leo XIII insists the State must protect the vulnerable and correct abuses.¹⁴ Today, governments must take proactive steps to regulate the digital economy. This includes:

- **Transparency:** Requiring companies to explain how their AI algorithms make decisions that affect hiring, firing, and pay.
- **Data Rights:** Protecting workers' personal data collected through surveillance tools.
- **Retraining:** Funding massive public programs for retraining and re-skilling workers into human-centric roles (creativity, care, education) that AI cannot easily replace.

¹² Ibid.

¹³ Antiqua et nova

¹⁴ Rerum Novarum 36

Pope Francis emphasizes that AI *must never violate human dignity for the sake of efficiency*.¹⁵ Regulation is necessary to set the guardrails, ensuring AI remains a tool, not a new master.

3.4 Solidarity & Global Responsibility

The principle of Solidarity reminds us that we are all responsible for one another.¹⁶ As AI development and data collection increasingly rely on low-wage workers in developing nations (often performing the digital 'cleaning' or labeling of data), global responsibility demands that we ensure dignity is upheld everywhere, preventing the exploitation of the "digital poor" for the profits of the "digital rich."

Integrating the Image of God with AI Ethics

The Image of God doctrine gives us the ultimate ethical standard. So no technology should ever reduce the human person to data, a function, or a quantifiable score.

The purpose of human work, as described by Pope John Paul II in *Laborem Exercens*, is not just economic production, but self-fulfillment and a way to cooperate with God's creation.¹⁷ When AI takes over routine, repetitive work, society must create space for people to contribute in new, meaningful ways that tap into the unique, non-quantifiable human gifts: moral agency, empathy, community building, spiritual guidance, and artistic creativity. The goal is not just full employment, but meaningful human contribution. This is the true measure of progress in the age of intelligent machines.

Practical Recommendations

Based on the strong teachings of the Church, we have clear steps we can take to guide AI development. These steps focus on putting the person first, not the machine.

Make Laws for Ethical AI: We need new laws that make AI systems fair and accountable. Companies should be forced to explain *how* the AI makes big decisions (like who to hire or fire). Humans must always have the final say, not the computer.

Help Workers Learn New Skills: When jobs are lost to automation, governments and companies must pay for free, high-quality training. This training should prepare people for new jobs that involve creativity, caring for others, or working *with* AI, not against it.

Keep Decisions Local: Decisions about using AI should happen at the lowest possible level (the local community or workplace), not just by powerful leaders far away. This ensures AI meets the real needs of real people.

Churches Must Lead by Example: Catholic organizations, dioceses, and schools should act as model employers. They must consciously choose to hire human workers and resist over-automating just for profit. They should show the world what human-centered work looks like.

¹⁵ Pope Francis, message to World Economic Forum: "Human dignity must never be violated for the sake of efficiency."

¹⁶ Rerum Novarum 42

¹⁷ Pope John Paul II in *Laborem Exercens*

Create Global Rules: Since AI and digital work cross borders, we need international agreements. These standards must protect low-wage digital workers around the world, making sure companies don't exploit the poor just to train their powerful AI systems.

Conclusion

The challenge posed by Artificial Intelligence to human labor and dignity is as profound as the Industrial Revolution that led Pope Leo XIII to write “*Rerum Novarum*” (On Capital and Labour). The core principles of this Great Encyclical provide a necessary moral framework for our current technological shift.

The fundamental threat posed by AI is its capacity to reduce the worker, a subject made in the image of God (*imago Dei*) to a mere tool, a monitored function, or a quantifiable score, thus wounding human dignity. This reduction is evident in job displacement across cognitive and physical tasks, the creation of unstable, low-wage work in the gig economy where algorithms act as an unfair boss, and the dehumanization that results from forceful observation and a loss of control in the workplace. To counter this, the timeless mandates of “*Rerum Novarum*” must be applied: we must affirm the Dignity of Work by prioritizing human-centric roles like creativity and care, enforce the Just Wage by ensuring that the wealth generated by automation is shared through mechanisms like Universal Basic Services or Universal Basic Income, defend the Right to Organize by establishing algorithmic governance where workers have a collective voice in the systems that manage them, and insist on Moral Responsibility by requiring the State to regulate the digital economy, mandate transparency, and fund retraining. The ultimate goal is not merely employment, but meaningful human contribution, ensuring that AI remains a servant to humanity and that, as Pope Francis emphasizes, human dignity is never violated for the sake of efficiency.

Bibliography

Aquinas, Thomas, St. *Summa Theologiae*.

John Paul II, Pope. *Laborem Exercens*. Vatican City: Libreria Editrice Vaticana.

Leo XIII, Pope. *Rerum Novarum*. Vatican City: Libreria Editrice Vaticana, 1891.

Sheffi, Yossi. *The Magic Conveyor Belt: Supply Chains, A.I., and The Future of Work*. Cambridge, MA: MIT Press, 2023.

Vatican News. "Pope Francis Sends Message to Davos." Vatican News. January 2025.
<https://www.vaticannews.va/en/pope/news/2025-01/pope-francis-sends-message-to-davos.html>.

———. "Pope: Unemployment is a Wound to Human Dignity." Vatican News. December 2023. <https://www.vaticannews.va/en/pope/news/2023-12/pope-message-work-employment-hope-dignity.html>.

"Rerum Novarum Anniversary: Gig Economy Workers' Rights." America Magazine. May 14, 2021. <https://www.americamagazine.org/faith/2021/05/14/rerum-novarum-anniversary-gig-economy-workers-rights-240636>.