

The Real Value of Work in an Increasingly Artificial World

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Oliver Olsen

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

Oliver Olsen

Advisor

Kathryn A. Neeley, Associate Professor of STS, Department of Engineering and Society

I. Introduction

Aristotle, in *Nicomachean Ethics*, said “[because], happiness seems to reside in leisure, we labor so that we may have leisure” (1177b). In the West, we work to be happy – but are unhappy to work. The illogic of hedonism, the ethical theory that pleasure (in the sense of the satisfaction of desires) is the highest good and proper aim of human life, takes work far from virtue. In my paper, I hope to explain what work is and why it is more important than ever that our society gets it right. On the eve of another tech boom of artificial intelligence, machine learning, and robotic process automation, the value that work gives to the individual’s soul may be at risk.

Machine learning is touted for cutting out the meaningless, repetitive, boring work that people would need to do within industry. AI gives power to those who can think systematically, in a big-picture view, and connect complex systems. Cutting costs in labor and solving hard problems would benefit mankind but risking the the value which work brings in our day-to-day may not be worth the rewards of this technology. Man was made to toil, work, and produce fruit as a result of his labor. Without the inherent value of work, man will be ultimately left restless, anxious, and unsatisfied.

John Ruskin famously once said, "The highest reward for a person's toil is not what they get for it, but what they become by it"(Ruskin, J., 1852). The West does not see work in a vocational way anymore. That is, discerning how God calls each man to serve Him in the world and viewing his work as a spiritual pathway to sanctity. Instead, our value system has been slowly replaced with a nihilistic utilitarianism. The influx of industrialization and specialization of labor has shown to value people solely on their productive abilities, sweeping a mindset of utilitarianism across the West and particularly America.

Capitalism and communism commit the same sin of utilitarianism. Both ideologies see the value of work solely as man's productivity. Man's usefulness makes him valuable, rather than his inherent dignity. While capitalism has benefitted the West on the whole, it has shortcomings for the spiritual and physical well-being of man. The modern innovation of the Industrial Revolution and the Knowledge Age has instilled a new value system in the West - that of strict productivity, and has left many in a particularly vulnerable position. The absence of vocational work has left the common man without a path to genuine fulfillment and satisfaction.

Cost and Consequences

AI has the potential to take away a fundamental nature of man and leave him hopeless, anxious, and lacking purpose. Nothing fails like success, and AI has the opportunity to be incredibly successful, but there will be societal failures before and while it does so. Can we prepare our society for this innovation? The costs of this technology are already being seen in academia, as the imagination of students are being drained and replaced by Chat GPT and Quillbot. The risks AI brings seem to be incalculable, yet to many – the rewards appear greater than any of the costs.

Approach to Resolution

I will scrutinize the current view of work in our society and compare it to historical, philosophical, and theological perspectives to fill man's necessity for "good" labor in an increasingly artificial, technological world. The modern challenge and opportunity lie in harnessing this technology to make it easier, not harder, for the common man to live a moral and virtuous life. Rather than solely focusing on labor and productivity, this angle explores how AI can contribute to fostering virtue, equality, and dignity among individuals, regardless of their societal status or economic standing. Pope Leo XIII profoundly stated, "True dignity and

excellence in men resides in moral living, that is, in virtue; that virtue is the common inheritance of men, equally within the reach of high and low, rich and poor" (Leo XIII, 1891).

II. Problem Definition:

Artificial Intelligence as a Social Experiment

Engineering projects and technological innovations, when introduced into society, can act as large-scale experiments with potentially unpredictable outcomes. Engineers, like researchers conducting experiments, bear ethical responsibilities to society due to the broad impacts of their work, including anticipating consequences, ensuring safety, and obtaining (as much as possible) the informed consent of those affected. "An engineer is exercising the sophisticated training that forms the core of his or her identity as a professional." (Martin & Schinzinger, p. 137). Engineers are tied to their work as part of their identity – it becomes an image of themselves that they portray to the world. Being so, they have a particular responsibility to create their work responsibly, testing their work effectively before releasing it into society.

Engineering viewed as a social experiment underscores the intricate relationship between engineering innovations and societal dynamics. Such projects don't operate in isolation; they profoundly influence and are molded by societal, cultural, and economic forces. The broad impacts can range from creating jobs to unintended consequences like urban sprawl due to automobile adoption. Engineers bear a hefty ethical duty, given these implications. They must foresee and mitigate potential downsides, harness societal feedback to refine innovations and work alongside other disciplines to grasp the broader social ramifications. Notably, unlike traditional experiments where participants provide informed consent, society often needs to have such a choice with engineering innovations, placing an onus on engineers to communicate risks.

This perspective demands a holistic engineering education, blending technical prowess with ethics, sociology, and humanities, to groom professionals for modern challenges.

The Tower of Babel (Fig. 1) is a classical example of engineering as a social experiment. The people of the world used their clever minds to build a tower that would let them rule the world as God - or so they thought. In the story, humanity united to build a tower reaching the heavens. Their ambition, akin to a grand engineering project, had unforeseen consequences. God, observing their hubris and unified action, confounded their language, causing miscommunication and scattering them across the Earth.



Figure 1. *The Tower of Babel*. Man's work often has unintended consequences.

In contemporary terms, large engineering projects can have unforeseen side effects or repercussions that weren't initially considered. The builders of Babel were focused on their immediate goal without considering the broader implications of their actions. Similarly, engineers today are tasked with considering not just the feasibility of a project but its long-term impacts on society and the environment (Martin & Schinzinger, 1983). When God intervened, it was a feedback mechanism to the actions of the people, much like how societal or environmental feedback might influence an ongoing engineering project.

This perspective elevates the moral consciousness of engineers, akin to researchers handling human subjects, emphasizing their responsibility to anticipate and mitigate potential societal consequences. The analogy may risk oversimplifying intricate engineering projects, potentially reducing them to just their societal footprints. While it encourages foresight, it's almost impossible to predict every societal ripple effect of a project. A significant challenge is the ideal of 'informed consent' in the realm of large-scale engineering, which can be impractical. Moreover, an overemphasis on potential societal repercussions might slow down or even halt essential advancements, introducing a paradox where caution could inhibit progress. Thus, while this perspective enriches the depth of engineering understanding and underscores ethical imperatives, it also demands a careful balancing act to ensure practical feasibility and forward momentum.

Technology leaders have been quick to integrate AI and Machine Learning tools into their companies to stay on the cutting edge of their industry. While consumers will be pleased with many of the services provided to them in the short term, it has the potential to lead to societal failures in the long term, especially with how people value the work they accomplish.

Utilizing Martin and Schinzinger's concept of engineering as a social experiment underscores the profound ethical challenges posed by Artificial Intelligence (AI) in devaluing labor. The development of AI is inherently experimental, and treating it as a Prototypical Experiment emphasizes the imperative of scrutinizing its societal impacts, particularly in eroding the intrinsic value of work.

The West's Development of Labor

The West's most important ideologies have all been about the value of work and the dignity of the human person, and artificial intelligence can change the way we view work once again. St. Pope John Paul II said, "Work is a good thing for man—a good thing for his humanity—because through work man not only transforms nature, adapting it to his own needs, but he also achieves fulfillment as a human being and indeed, in a sense, becomes 'more a human being'" (JPII, 1981). Here we find the West pushing back on Aristotle's hedonism. Leisure is not the ultimate end of work. Instead, the Petrine seat calls man to work for the sake of their ultimate fulfillment.

It's often proposed that the abolition of labor is a gateway to human liberation, supposedly allowing individuals to engage in self-realization and pursue intrinsic passions. In such a utopia, the shackles of class distinctions and economic hierarchies are dismantled, giving rise to a communal existence centered on equality and shared prosperity. But would the liberation from the necessity of work truly usher in an era of human flourishing, where individuals are free to explore their passions, creativity, and intellectual pursuits? Or would the absence of structured labor give rise to a sense of aimlessness, a loss of purpose, and a void in human fulfillment? Work is not merely a means for material provision but is fundamentally tied to the essence of being human. A laborless utopia, although seemingly liberating, risks severing this essential link, potentially leading to a loss of individual purpose, identity, and fulfillment.

In *Rerum Novarum*, Pope Leo XII explains that "Man precedes the state, and possesses, prior to the formation of any state, the right of providing for the substance of his body." Pope Leo XIII, through his encyclical "*Rerum Novarum*," delineated a philosophical framework that emphasized the principle of subsidiarity, asserting that governance and decision-making should occur at the most localized, least centralized level capable of addressing issues effectively. This

principle supports the autonomy and rights of smaller social units, such as the individual and family, suggesting that higher authority, including the state, should intervene only when these smaller entities cannot manage issues independently. In contrast, communism, with its centralized control and broad state intervention into economic and social structures, violates the principle of subsidiarity. This system typically empowers a centralized authority to manage and direct major aspects of societal, economic, and personal life, thereby diminishing the autonomy and direct influence of smaller social entities.

Today, we see work as a means to the end. Monday through Friday, 9 am - 5 pm, simply trying to get to the weekend. On Saturday and Sunday, he can be truly liberated to fulfill an assortment of hedonistic desires. The socio-political history of the West fighting with the question of labor, combined with the rapid technological advancements seen in the 21st century and our attitude about work in contemporary society, brew a perfect storm for potential failure in ethics.

III. Research Approach:

“The most valuable assets of a 20th century company were its *production equipment*. The most valuable assets of a 21st century institution, whether business or non business, will be its *knowledge workers* and their *productivity*” (Drucker, 1970). The history of the West takes a new turn with the advent of the “Knowledge age” (Covey, 2004, p. 15), our society values the intellectual productivity of man far more than physical labor. Stephen Covey looks at man’s work through the lens of what he calls “voice” a unique, personal significance. A man’s voice is his sweet spot - where he will find satisfaction with his work.

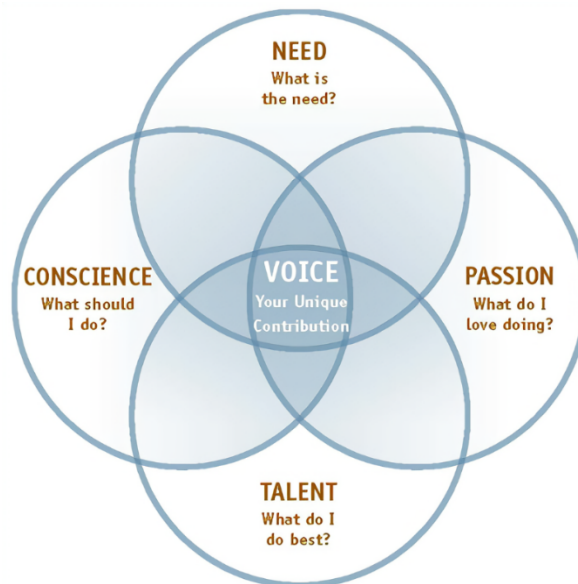


Figure 2. *Voice*. Your Unique Contribution to Work

To satisfy man, Covey recognizes work must provide for our needs, speak to our conscience, be a unique talent, and be a source of true passion in our hearts. When man uses these aspects in his daily work, labor becomes a gift in his life, no longer a curse to bear. These fundamental aspects provide a truly integrated view of work. As engineers, we must ask ourselves if we are making it easier for man’s voice to be heard when developing technology like artificial intelligence.

To need something, to lack, is poverty. Monastics choose a life of poverty to become closer spiritually to God. The absence of our physical comforts paradoxically helps us understand the gifts which are constantly around us. Recognizing this need to provide for our natural lackings drives man to work and engage with the world set before him. Work was given to fill this absence of comfort, or need. The recognition of need is integral to genuine satisfaction and true expression of our voice.

The key to understanding the value of hard work lies in the understanding of passion and true love. When Christ took on His passion, he did not love for His own sake. Christ died not for Himself, but out of love for the whole world. To fully embrace work is to allow a spring of love to pour out from the heart. Once the heart is full of passion, it cannot help but overflow and share our gifts with others out of charity.

Man's talents must multiply the effects of his work. God gives men talents and expects us to multiply them for the sake of others. Only in giving ourselves, do we find true sustenance. In the feeding of the 4,000, Jesus takes the few gifts that his disciples had brought to him, and out of divine compassion, miraculously multiplied the food to feed 4,000 men. "Each of you should use whatever gift you have received to serve others, as faithful stewards of God's grace in its various forms" (1 Peter 4;10). We each have talents and gifts and when we use them for the good of others we will be most satisfied.

Lastly, Stephen Covey touches on the need for work to align with man's conscious. Historically in the West, Jesus is known as the Logos, or the thought of God. The Logos is an intermediary between God and the world; through it, God created the world and governs it; through it also men know God and pray to Him ("De Cherub.", 125; "Quis rerum divin. hares sit", 205-06). His natural law is imprinted on the soul of every human being. When we recognize

the existence of morality, we all subliminally recognize Christ. As we do our work in this life, we make moral decisions with our free will, to do right or wrong, good or evil.

The Word of God is another name for Christ. “In the beginning was the Word, and the Word was with God, and the Word was God. He was in the beginning with God; all things were made through him, and without him was not anything made that was made” (John 1:1-3). This is understood to be that Jesus was the Word incarnate. Which brings us to the center of Covey’s diagram - the voice of man. When we combine these four aspects of work, we find man's “voice”. The research framework of Covey ultimately points to our “voice” being an incarnational aspect of each of our personalities, integral to our very person. As Jesus Christ is the voice of God the Father, we too participate more intimately with the world through the voice of our work here on earth.

IV. Results

We have a responsibility to the common good of the whole person.

In Stephen Covey's book, the 8th Habit, he says the fundamental method he is writing to describe is the whole person model. Covey says "The fundamental reality is, human beings are not *things* needing to be motivated or controlled; they are four dimensions – mind, body, heart, and spirit." When the whole person works in conjunction with his four dimensions, he is working naturally and will produce much fruit. As we look at AI in our workplace, we must appreciate the fundamental nature of the worker. Instead of viewing them simply for their physical or intellectual productive potential, we are called to appreciate their whole person.



Figure 3. *Whole Person Paradigm.* We are the composite of our mind, body, and heart.

In Figure 3, Covey describes the reality of our soul. When we look at our work, is it helping build up the spirit of our fellow man? We have a responsibility to develop technologies which will contribute to the whole person paradigm. AI has the potential to do amazing things for the common good. It will be applied to nearly all fields of research to cut down on computational needs and make decisions. It could be used poorly though, too. It could be used to cut corners around the education system, preventing the necessary learning our institutions help

foster in our communities. It can take a great toll on the human imagination. We already see that with screens and access to the internet. When was the last time you were bored and just content? Technology that is meant to make things faster, cheaper, and easier can often cut out our imagination from the thought process. When AI is developed and pushed into the world, we must ask ourselves: is utilizing this technology good for the whole person – mind, body, heart, and spirit?

Work is meant to benefit the laborer.

"Work is for man, not man for work. Everyone should be able to draw from work the means of providing for his life and that of his family, and of serving the human community" (CCC 2428). Can AI help man do this? If so, society must recognize the potential of this technology to cause great harm before it truly benefits the common good.

The widespread adoption of AI could lead to unemployment and a loss of meaningful work for many people, which could undermine human dignity and social cohesion. The development and use of AI must be guided by ethical principles that respect human dignity, privacy, and freedom. There is a risk that AI could be used in ways that are harmful or exploitative, or that it could make decisions that are not in line with moral values. In "Gaudium et Spes", the Second Vatican Council calls on individuals and societies to work for the common good. This implies a responsibility to ensure that AI is used for the benefit of all, rather than serving the interests of a few. AI must not be used in ways that exploit or dehumanize workers, or that treat them as mere means to an end. A healthy society should ask itself if the technology will benefit the working class and the common man. Work is meant to contribute to the person's

soul. With each technology we craft, engineers must ask if it will help man become ‘more human’.

The West will address AI similar to the 2000’s “.com” Boom and the Industrial Revolution.

AI is a social experiment, but we can mitigate the negative effects by investing in research to predict the shortcomings of the technology and legislate to prepared for dynamic innovation. The wave of AI is coming in the West. It’s effects are still unknown, but we will push forward as a society and take the brunt of it - similar to the .com boom. While society has benefitted from the .com boom, it has also suffered. We can minimize the damage in this next tech boom by legislating restrictions on AI, protecting those most vulnerable to abuses of AI, ensuring the rights of the worker, and most importantly, teaching decision-makers about the true value of work.

As the Industrial Revolution replaced many manual labor jobs with machines, the AI boom is expected to automate many jobs that are currently performed by humans. This could result in significant job displacement and require a retraining of the workforce. The Industrial Revolution led to significant economic growth and the creation of new industries. Similarly, the AI boom is expected to create new industries and opportunities for economic growth, but it may also lead to inequality and concentration of wealth. The AI boom is likely to bring about significant societal changes, including changes in the way we interact with technology and with each other.

Countries that implemented labor laws and regulations to protect workers' rights were more successful in avoiding social unrest and improving working conditions in the 19th century. These laws included regulations on working hours, child labor, and workplace safety. Allowing

workers to have a voice in the workplace, through unions or other forms of representation, helped to ensure that their rights were protected and that they had a say in working conditions.

V. Conclusion:

Society must view work not only as a means to an end but rather as a method of growing as a human. In Genesis, God cursed Adam and told him that a result of the fall would be that he now must work from the sweat of his brow and toil in the fields to sustain himself. Yet, God did not leave humanity to writhe and suffer meaninglessly in the world. He uses our suffering to teach, bless, and ultimately as a means of our salvation. As Abel the Just first offered sacrifice to God by the fruit of the vine and work of human hands, so can we. Vocational work sanctifies the body and allows man to come to a deeper sense of fulfillment.

As AI continues to make lives easier brighter in the West, we must remember our past. By looking through Martin and Schinzinger's lens of Engineering as a social experiment, we can be better prepared for change. We can predict how AI will impact the poor and marginalized and help minimize the damage that comes with change. The human race is best at adapting, not micromanaging and artificially restricting creativity. Let's encourage our society to pursue AI with virtue as our ultimate goal.

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