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The Technological Paradigm and Discerning Our Response

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Some years ago, I wrote a popular press article about disappearing work that used the insightful descriptions and analysis by Martin Ford in his first book: *The Lights in the Tunnel: Automation, Accelerating Technology and the Economy of the Future*. Having lived and worked in Santa Clara Valley (Silicon Valley, or now simply The Valley) my entire life, I have witnessed the mercurial growth of high technology. My mother was an electronics worker at Fairchild Semiconductor in the 1960s, and my father bulldozed fruit orchards and leveled ground for the ubiquitous tilt-up industrial park buildings constructed in the '70s. Before my vocation to the priesthood, I worked as a compensation analyst at the Data Systems Division of the Hewlett-Packard Company in the early 1980s—now the site of “Apple Campus 2,” sometimes described as other-worldly in its design and construction. My calling, then and now, centers on the nature of work and its importance to workers and their families, which is according to Catholic social teaching is the basic cell of society. The power of Silicon Valley’s science and engineering has always intrigued me, but my greater interest has focused on the nature of work itself—what is it for the people? How is the ongoing revolution in technology shaping today’s and tomorrow’s work? Where are the light and shadows in this technological revolution?

At this point, anyone remotely aware of the economic growth of “The Valley” and its developments spawned by the digital age is familiar with Moore’s law. Gordon Moore, a founder of Fairchild Semiconductor and the Intel Corporation, predicted in the mid-1960s that one would be able to

purchase two times of the semiconductor computing power for the same price about every two years for the next ten years. In other words, the power of microchips would increase exponentially, and only after a half a century is this pace apparently slowing down, far outlasting Moore's original prediction of ten years. The computational power made possible by constant improvements in microchip technology has resulted in such incredible advances, such as the completion of the genome project, the advances of the internet, the launch of the biotechnology revolution, the presence of driverless cars, and a host of other remarkable achievements in the span of two human generations, a period of roughly 50 years. When describing the evolution of the digital age, most futurist authors refer to Moore's Law as a descriptor for the recent past and a pointer for our future. It is also a handy way to think of the compression of time between technological developments over human history, because today knowledge is so much more quickly shared, put to use, and built upon. Today, the pace of innovation is accelerating. Think of the length of time between development of the steam engine, trains, automobiles, propeller aircraft, jets, and space travel. The time between today's technological innovations has been comparably shortened, or more fittingly compressed. Consider the passage of time between each of these subsequent innovations has compressed: the telegraph, telephone, radio, television, computers, and now the personal electronic device (PEDs with language translators!). Now, automation, robotics, and ultimately artificial intelligence (AI) are becoming perfected and pervasive in a relatively short time.

Changes in work life, the occupational choices available, and the experience of economic expansion (with both winners and losers) have run parallel with the amazing computer revolution and digital age. It has all happened within in my lifetime, and I hope, God willing, that I will see the maximizing of beneficial advances and the minimizing of detrimental costs during my remaining years. However, everyone needs acknowledge its negative effects as well as anticipate the potential negative effects of the ongoing socioeconomic changes resulting from this unprecedented and constantly

accelerating technological development. We must remain completely aware that human beings are made in the image of God, and each are given distinct talents to share with the world. “The Church sees in men and women, in every human being, the living image of God himself. The image finds, and must always find anew, an ever deeper and fuller unfolding of itself in the mystery of Christ, the Perfect Image of God, the One who reveals God to man and man to himself.”¹ In accepting the dignity of every human being while acknowledging their differences, disciples of Jesus are compelled to serve one another in Christian neighborly love. As Catholic Social Teaching presents, every person participates in an integral and solidary humanism; in other words, by following our faith (i.e., all Catholics) and reason (i.e., all believers and nonbelievers alike), we are lifted up individually and communally.

Facebook as a company has received significant benefit from this technical revolution. Its headquarters is located a mere two miles from the campus of St. Patrick’s University and Seminary where we are forming the next generation of Catholic priests. If you drive around the corner from Willow Road to the Dumbarton Bridge access, you will often see tourists from around the world taking photographs before the “Like-Thumb” billboard. Facebook’s success has made it a local tourist attraction! It has also made a lot of money for its investors; Facebook’s valuation is \$550 billion at the writing of this article. The company’s phenomenal growth is an excellent example of the unique characteristics of businesses in the digital age. Today’s digital enterprises, like Facebook, Uber, AirBNB, and others, are unlike businesses in any other era, because the web allows them to provide services to millions of customers around the globe—nearly instantaneously—without significant investments in manufacturing plants, employee headcount, and product distribution systems. While some gained with the success of Facebook, others gained relatively little. Erik Brynjolfsson and Andrew McAfee calls this a “winner-take-all” reality in *The Second Machine Age*. As they point out, when inexpensive tax preparation software became available to consumers, then taxpayers no longer depended on their neighborhood tax preparers—a loss of work. The few companies providing taxpayer software enjoyed

the winner-take-all results.² Facebook has built its \$550 billion valuation on the attraction of browsers/customers who are making friends, providing news, and perhaps losing friends by their own cyberspace sharing and musing. By bringing their own life, experiences, and views to the platform, they, in a sense, help build it – without receiving payment, of course.

Facebook, Uber, AirBNB, and others do not require their own manufacturing plants, international offices, or hourly middle class employees as multinational/industrial era corporations of an earlier time. Effectively, their operations like other advertising, crowd sharing, and subscription based types of internet enterprises create a connectedness that generates services and income without many of the traditional employer-employee or producer-customer relationships. Facebook's digitally generated web platforms reaching across the globe give it power and influence in local communities without the same relationships and experiences required in traditional economies. Think of the growth of urban centers during the industrial era, in part, the result of industrial farming leading to less work in the countryside and factory employment located at trade centers. We are all seeing an equivalent period of change in our post-industrial world. Today, employers, employees, and consumers all are experiencing the same anxieties caused by such a rapid change in economic life and have little time and capacity to properly adapt. The rapid adoption of new technology is putting stress on workers and non-workers alike that seeps quickly their families and community lives. On the one hand, we benefit from the new advances as consumers; on the other hand, we feel overwhelmed by changes that we experience as producers--workers. In immediate terms, change in technology has already far surpassed our growth in human development; unless, like some futurists, you believe in transhumanism, the interfacing of technology and the human being, leading people to greater physical and mental powers. This has its own set of profound issues since it would change the nature of humanity itself.

The digital age has produced web giants, automation that far exceeds consumer needs, and machines that can outperform physically and mentally their human builders. Pope Francis in *Laudato si'*

has shared his own anxiety about a world dominated by technological advancements, leading to challenges to human work as we have known it:

We were created with a vocation to work. The goal should not be that technological progress increasingly replace human work, for this would be detrimental to humanity. Work is a necessity, part of the meaning of life on this earth, a path to growth, human development and personal fulfillment. Helping the poor financially must always be a provisional solution in the face of pressing needs. The broader objective should always be to allow them a dignified life through work. Yet the orientation of the economy has favored a kind of technological progress in which the costs of production are reduced by laying off workers and replacing them with machines. This is yet another way in which we can end up working against ourselves. The loss of jobs also has a negative impact on the economy “through the progressive erosion of social capital: the network of relationships of trust, dependability, and respect for rules, all of which are indispensable for any form of civil coexistence” (Benedict XVI, *Caritas in Veritate*, §32) In other words, “human costs always include economic costs, and economic dysfunctions always involve human costs” (Benedict XVI, *Caritas in Veritate*, §32). To stop investing in people, in order to gain greater short-term financial gain, is bad business for society.³

In 1891, in the midst of the industrial revolution and its negative externalities—unsafe working conditions, poverty wages, child labor, and the fostering of class divisions—Pope Leo XIII voiced his concern for workers in the encyclical *Rerum Novarum*. His teaching addressed the relationship between capital and labor, the rights and responsibilities of each, the role of private property, and the importance of charity. *Rerum Novarum* speaks directly to the virtues because, by our humanity, we search for truth, the good, and the beautiful. The encyclical, relying on St. Thomas Aquinas, recognizes

the human person as inclined to the virtuous life and capable of growing in perfection with the help of God:

From contemplation of this divine Model, it is more easy to understand that the true worth and nobility of man lie in his moral qualities, that is, in virtue; that virtue is, moreover, the common inheritance of men, equally within the reach of high and low, rich and poor; and that virtue, and virtue alone, wherever found, will be followed by the rewards of everlasting happiness.⁴

The Catholic Church has repeatedly criticized both socialism and capitalism for philosophical, political, and anthropological stances that deny human dignity, whether it is socialism's atheistic historical materialism or capitalism's maximization of beneficial outcomes for the many occasionally at the cost of the denial of dignity for the few. In fact, today's economy could be worse; contrary to the effort at creating the greatest good for the greatest number, today's market economy had led to the maximization of benefits (i.e. wealth) for the few and a relatively diminishing amount of wealth for the many. With its unquestionable denial of human freedom, socialism has had less of a sway in the minds of the general population over the last 30 years. Rather, capitalism has delivered economic growth, created new industries, and provided a better life for billions across the globe. However, the critique of capitalism is not a question of everyone achieving the same level of success; it is an issue of helping those who, for socioeconomic externalities and yes for human frailty and failings, are left without the basic resources needed by every person—e.g. food, water, housing, education, and health care. Oftentimes, this is simply due to a lack of adequate employment. This is the challenge that society will increasingly face as automation, robotics, and AI continue along their path of exponential growth.

Mark Lutz and Kenneth Lux have traced the philosophical development of utilitarian thinking that is fundamental to capitalism and pointed out its flaws in *Humanistic Economics: The New Challenge*.

In the end the capitalism of the last two centuries understands men and women as hedonistic creatures who act out of self-interest—that is, respond to rewards and punishments—without espousing a transcendent human nature that includes social participation, other-directedness, and personal self-denial. While the authors use Abraham Maslow’s theory of hierarchical needs to describe human development as the movement towards the self-actualized person; for the purpose of this paper, the reader should substitute Christian neighborly-love, self-mastery, and sacrifice. Christians find themselves happiest when they have a personal relationship with Jesus Christ and manifest this relationship in their spiritual life and neighborly love. Lutz and Lux contribute to the discussion and reflection about work and technological development today, because they realize that economic man and woman have become emptied of transcendent characteristics—virtues—in this short-term, market-driven capitalist world. Darwin, Marx and Freud—pivotal figures in our modern understanding of the human being—dismiss God-talk when they explain the human mind. In a hyperbolic extension, economist Jeremy Bentham’s pain and pleasure dichotomy is magnified in Freud’s understanding of the “pleasure” principle. Every human behavior is reduced to satisfying himself or herself, and altruism and other-worldly aspirations play no part in what it means to be a human being.⁵

Economic thinking has come to identify the human being as a creature of wants and not needs; this thinking has permeated business, politics, and education. Following Hobbes and Machiavelli, the classical economist Alfred Marshal accepted the idea that it is our passions that direct us. The focus on pleasure is reworked by Marshal in *The Principle of Economics* (1890) into “satisfaction,” “costs,” and “benefits.” While we often use cost-benefit analysis in our decision-making to our general benefit, we can also make mistakes in the variables that enter into our calculation or even manipulate the selection, measurement, and definition of the variables leading to “garbage in, garbage out.” Marshall understood that human beings have higher motives, but this perspective was not a part of his study and description of economic man or woman.⁶

In contrast, John Ruskin, an 18th century economist, believed men and women do not follow the behavior of rats or swine, and spoke about the motive power of the soul: "...the force of this very peculiar agent, as an unknown quality, enters into all the political economist's equations, without his knowledge, and falsifies every one of their results."⁷ Neoclassical economics focuses on self-interest, and consequently all human behaviors are based on self-interest alone. Lux and Lutz argue that our collaborative and cooperative nature (accepting limits in our life and cooperating with others) is illustrated by the prisoner's dilemma games designed and studied by Merrill Flood and Melvin Dresher. Basically, significant numbers of people will not cheat or take advantage of other game players (i.e., maximize their return) when faced with such an opportunity. They will not take the route of riches, honor, and pride—St. Ignatius of Loyola's description of imprudent "self-interest"—and make choices at the expense of other players. Human beings will not base their decision-making solely on their own needs and, in some cases, will make extreme sacrifices for others. Employers, employees, and consumers at some level and in some number will take less to satisfy the needs of others. The fundamental point is that calculated self-interest offers an incomplete description of our humanity.

Riches, honor, and pride were the primary motivators of Saint Ignatius of Loyola (1491-1556) in his early life. Saint Ignatius' family supported King Ferdinand V of Spain, and Ignatius in his youth lived as a page in the royal court. He would take on the dress, manners, and reputation of the proverbial swashbuckler by all accounts, and his focus was on temporal rewards. The Autobiography of Saint Ignatius, dictated by him to Father Luis Gonazalez, SJ, points out Ignatius' struggle with self-interest and a lack of a clear transcendent purpose:

Up to his twenty-sixth year the heart of Ignatius was enthralled by the vanities of the world. His special delight was in the military life, and he seemed led by a strong and empty desire of gaining for himself a great name. The citadel of Pampeluna was held in siege by the French. All the other soldiers were unanimous in wishing to

surrender on condition of freedom to leave, since it was impossible to hold out any longer; but Ignatius so persuaded the commander, that, against the views of all the other nobles, he decided to hold the citadel against the enemy.⁸

The history continues with the wounding of Ignatius in the ultimate defeat and the subsequent tortuous surgeries and rehabilitation. During this period of treatment and recuperation, Ignatius remained divided between his passions and emotional investment in a life of chivalry and fame, and feelings for a life of service dedicated to God and neighbor. While recuperating, he read the *Life of Christ* by Ludolph of Saxony and reflected about the lives of Saint Francis of Assisi, Saint Dominic, and others. At an earlier time, he had read *El Cid* and similar accounts of the lives of knights, princely leadership, and genteel royalty. Given his not uncommon emotional proclivities, he would ponder and meditate upon a military career and a nobleman's life and, at times, ponder and meditate on a life dedicated to saintly service. At this time of immobility and involuntary convalescence, he discovered that on the one hand his meditations on a life of military honor and royal prestige would console him, but this consolation would later dissipate; yet, on the other hand, during and long after his meditations on Christian discipleship, he remained consoled—feeling joyful, tranquil, and at peace.

Saint Ignatius came to recognize that emotions and passions are a normal aspect of every person's life. However, he understood that what we do with them makes all the difference. Good spirits, the work of angels, the saints, and naturally the Holy Spirit lead each person towards God and a virtuous life. Evil spirits, the activities of the devil and his minions, lead one away from God and into vice. Temptations and sin lead one down and away from the love of God and neighbor. The prodding of the conscience shakes one out of the dissolute life and back to the consolation that comes from God. These movements occur because emotions and the root of emotions—desires—either lead us away from or to the transcendent God. Ignatius teaches that our deepest desires—primarily the desires to love and be loved—are God's desires for us. You find your peace in following God's will.

Ignatius discovered in his own life something that is common to us all. The economist John Ruskin also recognized this element of our lives. *We are not rats or swine*. Lutz and Lux call it the dual-self. Economists have traditionally attempted through the use of indifference curves to report how much of a good or service one will sell at a particular price or relative to another good or service. However, they error by failing to acknowledge certain goods are required and have no good alternatives, e.g. food and water. They are *incommensurable*; one can make this argument for shelter and education, too. Lutz and Lux also argue that employment is a need, not a desire. Moreover, people have ethical decisions to make in their economic decision-making, which is revealed by their preferences for preferences.⁹ This is not a quantitative mathematical decision; it is a qualitative decision. In a very clear way, preferences about preferences show the source of conflict in economic choices: guns or butter, regional parks or housing developments, short-term or long-term goals? These are political and human problems and not simply economic ones. Lutz and Lux provide a basic example of the nature of preferences for preferences. A smoker has the *desire to quit smoking*, but he also has the *desire to smoke a cigarette*. The choice is one of quality, but an economist sees them as equal desires and equal choices. What kind of life does the person wish to live? If you are his friend, do you provide him with a cigarette or not? It is an ethical question for both of you. Do you give a sober alcoholic a beer because he has the desire for alcohol? Lutz and Lux write: "Therefore the statement, 'I have some pretty awful desires,' is a perfectly sensible and meaningful human statement, but one that has been completely excluded from being understood with the framework of conventional one-dimensional or one-self economics."¹⁰

The technological advances of automation, robotics, and AI cannot be inherently bad; it is our decision-making and uses of them that will result in good or evil. Martin Ford has presented a trenchant view of the future of work in this new age in *Rise of the Robots: Technology and the Threat of a Jobless Future*. He refers to a previously unpublished article written by MIT mathematician Norbert Wiener at

the request of the *New York Times*. The article was written in 1949 as *The Machine Age*, but not until 2013 were sections published in the *New York Times*:

The new machines have a great capacity for upsetting the present basis of industry, and of reducing the economic value of the routine factory employee to a point at which he is not worth hiring at any price. If we combine our machine potentials of a factory with the valuation of human beings on which our present factory system is based, we are in for an industrial revolution of unmitigated cruelty.

We must be willing to deal in facts rather than in fashionable ideologies if we wish to get through this period unharmed. Not even the brightest picture of an age in which man is the master, and in which we all have an excess of mechanical services will make up for the pains of transition, if we are not both humane and intelligent...Finally the machines will do what we ask them to do and not what we ought to ask them to do.

Moreover, if we move in the direction of making machines which learn whose behavior is modified by experience, we must face the fact that every degree of independence we give the machine is a degree of possible defiance of our wishes. The genie in the bottle will not willingly go back in the bottle, nor have we any reason to expect them to be well disposed to us.

In short, it is only a humanity which is capable of awe, which will also be capable of controlling the new potentials which we are opening for ourselves. We can be humble and live a good life with the aid of machines, or we can be arrogant and die.¹¹

St. Ignatius of Loyola in his own spiritual journey provides some insight in how we can respond. He came across two means of discernment that fit our human condition. First, every person has involuntary experiences, and these occur in groups of people as well. We have energies within us to respond to

these experiences. We can respond to these experiences by moving downward, away from God with a decrease of faith, hope, and love or by moving upward with an increase in these virtues. When the person or community moves toward God the result is consolation, when the person or community moves away from God, the result is desolation.

When a person or group of people moves from one good to another, reasonable thinking and behavior give them peace. Often, it is at this point that the evil one attempts to trip us up with fallacious or emotion-laden thinking. When the person moves from bad to worse, the evil spirit simply allows the downward movement while the good spirit prods the conscience with guilt, remorse, and confusion. The resulting decision-making is based on reason and the authoritative will of God—Holy Scripture and Church teaching.

The second type of discernment is a question of choosing between the good and the better. The good spirit leads to the better choice and the resulting consolation is long-lasting (as in the case of Ignatius' vocational discernment). The evil spirit entices one from making better choices by trying to present even better apparent goods, leading to confusion. Since neither the original good choice nor original better choice are evil, the principle means of making this decision is the use of one's reason. Holy Scripture and Church teaching do not object to either choice.¹² Saint Ignatius recognizes that time can be a factor in decision making. In one case, discernment can occur over time with prolonged reflection and prayer. Individual and communal retreats are useful in this case. In a second case, when time is short, the discerners make the best decision possible, given the availability of data and time, and trusts in God's ongoing presence and guidance—perhaps discerning again as time passes and new experiences occur.

In both types of decision-making, instances of the discernment of spirits, the use of reason is part of the activity. Even if they have no faith in God, business men and women, the setters of public

policy, educators, and the rest of the population necessarily require reason to make sound choices. The present technological revolution will require communal reflection and thoughtful discussion to protect our humanity from serious social and economic dislocations. Today in the United States, we have a lower number of employed people relative to the general population than at any other time in American history; in addition, the real income of the American worker is lower than in the 1990s.¹³ While there are fantastic and useful consumer benefits with today's technological bounty, the data shows greater inequalities in wealth, skills, and opportunities. The bounty overall has increased but the spread between the haves and have nots is skewed. You no longer have a large middle class, but you find the great majority of people challenged economically and under stress while a smaller and smaller percentage of the population possesses super wealth.¹⁴ Brynjolfsson and McAfee, following the arguments of economist John Maynard Keynes, describe the processes that will lead to technological unemployment because of inelastic demand (a satiated population), rapid change, and income inequalities.¹⁵ A market-driven economy needs consumers, and to avoid technological unemployment the consumers would have to maintain their demand for more, possess the ability to adapt to new types of employment, and have adequate income that allows them to consume. The present data points to serious challenges in the not too distant future because machines will continue to change the nature of work at an accelerated rate.

The leaders of business, labor, government and religion need the virtues to make good decisions with regard to automation, robotics, and AI—given their potentially widespread impact on the nature of work and its social importance.

We have insisted, it is true, that, since the end of society is to make men better, the chief good that society can possess is virtue. Nevertheless, it is the business of a well-constituted body politic to see to the provision of those material and external helps

"the use of which is necessary to virtuous action." Thomas Aquinas, *On the Governance of Rulers*, 1, 15 (*Opera omnia*, ed. Vives, Vol. 27, p. 356).¹⁶

On the one hand, the primary virtue of prudence will not condone foolishness in responding to the socioeconomic demands of the moment (e.g., accepting these developments without discussion and planning); on the other hand, prudence will not condone a cowardly rejection of technology as a dastardly monster. Joseph Pieper explains in *The Four Cardinal Virtues: Prudence, Justice, Fortitude, Temperance* that prudence is part of the good and prudence requires fortitude at times, not a spineless acceptance of the "inevitable" to avoid troubling the experts and perhaps mistakenly making choices with socially harmful effects. Prudence and the good always go together. A sacrificial, self-denying act for the right reasons is good and prudent—they are simultaneous. In fact, as also presented in this paper, E.F.Schumacher's *Small is Beautiful: Economics as if People Mattered*, questioned the metaphysical and psychological foundations of economics. He spoke of intermediate technology for the Third World, but the advances of technology in the First World may also require a self-imposed gradualism for the good of people. It would require education and ultimately conversion.

Pieper argues that prudence and conscience are interchangeable.¹⁷ Virtue is the "perfected ability" of man while justice, temperance, and fortitude are "abilities" of the whole person—based on prudence.¹⁸ The explosive development of automation, robotics, and AI requires a dedicated focus on the role of conscience—our spiritual life—to help us respond to the challenges we face as producers and consumers. The way forward is seeking out what is true in our human experiences, which directs us to the good. We who are Catholic (that is, believers in the transcendent—God) have faith, hope, and love to support our truth seeking, but we can work with non-believers, who recognize their "conscience" and possess a sense of awe. We all need to care for each other as the second machine age takes off. St. Ignatius' understanding of discernment will support us in this effort. He, too, understood the dual-self.

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- ¹ *Compendium of the Social Doctrine of the Church*. (Washington, DC: United States Catholic Conference, 2005), § 105.
- ² Erik Brynjolfsson and Andrew McAfee, *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies* (New York: W.W. Norton & Company, 2016), 155.
- ³ Pope Francis, *Encyclical on Care for our Common Home Laudato Si'* (24 May 2015), §128.
- ⁴ Pope Leo XIII, *Encyclical on Capital and Labor Rerum Novarum* (15 May 1891), §24.
- ⁵ Lutz, Mark A. and Kenneth Lux, *Humanistic Economics: The New Challenge* (New York: Bootstrap Press, 1988), 1-7.
- ⁶ *Ibid.*, 50-54.
- ⁷ *Ibid.*, 75.
- ⁸ J.F.X. O'Connor, SJ, ed., *The Autobiography of St. Ignatius* (New York: Benziger Brothers, 1900), 7 at www.basilica.ca/documents/2016/10/St. Ignatius-The Autobiography of St. Ignatius.pdf.
- ⁹ Lutz and Lux, *Humanistic Economics*, 111.
- ¹⁰ Lutz and Lux, *Humanistic Economics*, 111.
- ¹¹ John Markoff, "In 1949, He Imagined an Age of Robotics," *New York Times*, May 20, 2013, <https://www.nytimes.com/2013/05/21/science/mit-scholars-1949-essay-on-machine-age-is-found.html>.
- ¹² This description of the understanding of the human person and discernment comes from a retreat handout without citation. It is a breakdown of the rules of discernment from the Spiritual Exercises.
- ¹³ Erik Brynjolfsson and Andrew McAfee, *The Second Machine Age*, 164.
- ¹⁴ Erik Brynjolfsson and Andrew McAfee, *The Second Machine Age*, 167-172. The authors provide a detailed analysis of the bounty and spread reality.
- ¹⁵ Erik Brynjolfsson and Andrew McAfee, *The Second Machine Age*, 173-180.
- ¹⁶ Joseph Pieper, *The Four Cardinal Virtues Prudence, Justice, Fortitude, Temperance*, (Notre Dame, Indiana: University of Notre Dame Press, 1966) 34.
- ¹⁷ Joseph Pieper, *The Four Cardinal Virtues*, 11.
- ¹⁸ *Ibid.*, 6.