

**Cristian Mendoza**

Pontifical University of the Holy Cross

## **Disconnected or Free: The Human Direction of The Fourth Industrial Revolution**

### **Odłączony czy wolny: ludzki kierunek czwartej rewolucji przemysłowej**

#### **ABSTRACT**

In the first section of this article we explore some of the authors who approve or disapprove of the use of digital industry technologies and artificial intelligence, basing their observations on the consequences that this new industrial revolution has for the human person. In the second section, following some of the observations of the well-known Italian sociologist Pier Paolo Donati we question what is the real role of traditional ethics in the face of an instrumental system that is capable of directing social action on a massive scale. Finally, we consider that throughout history, when important instruments of production have emerged to the point of shaping an „industrial revolution”, warnings and teachings aimed at protecting the dignity and freedom of individuals have emerged. A good example of these teachings is the social doctrine of the Church, which has not yet pronounced itself on the digital industry or on artificial intelligence in a systematic way. Our thesis is that the magisterium has not pronounced itself on these fields, because the Church’s social teaching is awaiting the intellectual contribution of the Church’s lay faithful who are experts in these fields.

#### **KEYWORDS:**

artificial intelligence, digital industry, industrial revolution, church social doctrine

#### **ABSTRAKT**

Artykuł podejmuje problematykę konsekwencji wykorzystania technologii przemysłu cyfrowego i sztucznej inteligencji w kontekście nowej rewolucji przemysłowej. W badaniach odwołano się do wybranych obserwacji znanego włoskiego socjologa Piera Paolo Donatiego, dotyczących rzeczywistej roli tradycyjnej etyki w obliczu systemu instrumentalnego, zdolnego do kierowania akcjami społecznymi na masową skalę. Udowodniono, że na przestrzeni dziejów, kiedy pojawiły się ważne narzędzia produkcji skutkujące „rewolucją przemysłową”, pojawiły się ostrzeżenia i nauki mające na celu ochronę godności i wolności jednostek. Egzemplifikacją tych procesów jest społeczna doktryna Kościoła, ponieważ nauka społeczna Kościoła oczekiwała na intelektualny wkład świeckich wiernych Kościoła, będących ekspertami w tych dziedzinach.

#### **SŁOWA KLUCZOWE:**

sztuczna inteligencja, przemysł cyfrowy, rewolucja przemysłowa, doktryna społeczna Kościoła

## INTRODUCTION

In considering the ethical sense of the new digital industry and artificial intelligence, it is not difficult, on the one hand, to discover the enthusiasm of a group of authors for the benefits of these new technologies that are being developed thanks to robotics, digitalization, the Internet, biotechnology, etc. On the other hand, it is not difficult to find many other authors who criticize the development of these same technologies as they consider them to be a kind of social structure that oppresses and hinders the development of people. In order to forge a judgment on these apparently opposing views, it seems necessary to have a clear point of reference or, in other words, a normative criterion for these technologies. The normative criterion will allow us not only to describe how these technologies develop, but how they should develop; which implies that we consider possible the existence of an ideal mode of technological development that, in our opinion, should respond to the classical idea of personhood and human nature.

We know that there are many possibilities of judgment to fix an ideal model of technological development. A possible criterion for the development of new technologies could be set on the basis of their greater efficiency or speed of performance. According to this criterion, the best technologies would be those that allow us to do what we do more quickly or efficiently. Another possible criterion is the reduction of the operating cost of the activities we perform, so that the best technology would also be the one that allows us to do what we do more economically and use the least possible energy resources. Efficiency and economy are undoubtedly criteria that have guided technological development in recent decades. Without downplaying the importance of these guiding principles of technological development, we would like from the outset to set the criteria that will lead us here to navigate among the different, often conflicting, opinions on technological development held by many authors. In the following presentation of the authors, we are interested in the human side of technological development, in other words, we believe that the best technology is the one that allows us to be better human beings.

Far from being a trivial assertion, we wish to emphasize that technology today is an instrument not simply for doing what we do more quickly or more cheaply, but a series of instruments configured to give meaning to what we do. The clear awareness of the directing power of technology has led some to claim, for example,

that investments in new technologies can predict the future of humanity, not only because the financial mechanism anticipates the future value of goods traded on the stock exchange, but because making such predictions somehow determines the future expectations of society at large. This statement surprises those who criticize this directive power of technology, because it would be the same as denying the instrumental character of technological development in order to clearly situate man as an instrument of technology. It is not surprising that many authors since the second half of the twentieth century have feared that „intelligent machines” would end up dominating and subjugating human beings<sup>1</sup>. It could lead, as Sullivan observes, to the construction of a new idol, understood as the representation of a power capable of saving human beings from their need and misery. „AI (Artificial Intelligence) will be able to construct humans with capabilities and features far beyond those born of natural generation: they will be larger, stronger, more intelligent, perhaps organically connected to the internet of things”<sup>2</sup>.

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We would like to stress the instrumental character of technology: we must always speak of tools at the service of man and not the other way around. This is an important point, since there are few authors who claim that if a technology were to allow us to do what we do more quickly and more cheaply, on condition that it isolates us and makes us dependent on the use of tools, it would ultimately be a harmful technology.

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<sup>1</sup> I. J. Good, *Ultra intelligent Machines and Their Value. Speculations Concerning the First Ultra intelligent Machine*, 1964. <https://web.archive.org/web/20010527181244/http://www.aeiveos.com/~bradbury/Authors/Computing/Good-IJ/SCtFUM.html> [online: 3.03.2022].

<sup>2</sup> E. Sullivan, *Artificial Intelligence, Idolatry, and Human Manipulation*, „Angelicum” 2020, n. 97.1, pp. 119–120.

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## **THE INDUSTRIAL REVOLUTION OF ARTIFICIAL INTELLIGENCE**

To move forward in our reflections, it is useful to retrace our initial route from praise to criticism of these technologies. First of all, many authors in recent years have been busy outlining some of the social consequences that the development of artificial intelligence will bring. Artificial intelligence refers to the development of robotics and instruments „programmed to do things”. A first characteristic of these new instruments is their complexity, since in reality, together with artificial intelligence, new instruments are emerging, such as „additive manufacturing, neurotechnologies, biotechnologies, virtual and augmented reality, new materials, energy technologies, as well as ideas and capabilities we don't yet know exist”<sup>3</sup>.

In addition to their increasing complexity, it would not seem difficult to indicate as a second characteristic of these technologies the speed with which they are generated and accepted by their users. Klaus Schwab and Nicholas Davis seem to recognize great opportunities in the development of new technologies and therefore invite us to consider that these instruments are quickly accepted by society as part of the common good.

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<sup>3</sup> K. Schwab, N. Davis, *Shaping the Fourth Industrial Revolution*, Geneva 2016, p. 7.

While it took the telephone 75 years to reach 100 million users, the internet garnered that many users in under a decade (...) AI firms are both emerging and being acquired at exponentially increasing rates, while the use of ever-smarter algorithms is rapidly extending employee productivity<sup>4</sup>.

The speed and efficiency of the development of new technologies seems unquestionable. However, these authors suggest that the current momentum of these new technologies should be identified with the pace of human development. This means, on the one hand, that the jobs done by people that can be replaced by artificial intelligence demonstrate that these jobs should not be done by people. On the other hand, it seems increasingly clear that those who are responsible for promoting and guarding the common good are not keeping pace with the rhythm of social growth that these new technologies impose on society. For example,

In advanced economies, the majority of new jobs consist of independent contracting, part time, temporary or „gig economy” activities, which tend to lack the statutory protections and social benefits of full time work. In the United States, for example, 94% of new jobs created between 2005 and 2015 are in „alternative forms of work”, lacking social protection, labour rights or even meaningful control on the part of workers<sup>5</sup>.

The interesting point that we could underline is that, although the industry of these new technologies is identified with a certain mercantile logic, those who judge the social consequences of these technologies seem to think that the vision of the owners of this technological development comes to be identified with the commonly accepted expectations of the future human society. In other words, it is not simply a matter of accumulating the capital necessary to create ever more complex and efficient products, made ever more quickly and affordably. The purpose of those who create these instruments is to modify lifestyles and give rise to new human relationships. At the basis of these reflections, whether critical or laudatory, we find the idea that social relations do not depend so much on families or educational centers, but in fact depend on technological development and on those who are designing this development for the future.

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<sup>4</sup> Ibid., p. 21.

<sup>5</sup> Ibid., p. 25.

The great mission that the owners of these instruments set themselves has aroused interest among those who seek to explain reality, under a descriptive analysis, and also among those who seek to explain how social reality should be, under a normative analysis. As mentioned in the introduction, Pierpaolo Donati notes with reasonable concern that George Soros, the American financial magnate, recognizes that financial investments have the real capacity to modify the development of a society in the future. Since investments anticipate the future decisions of customers to project the value of a product or service in the future, then they also direct economic and human resources to make the forecast come true. Thus for Soros, the future of society is in the hands of those who can foresee the future of economic investments in a given industry or market. „They shape reality (what actually happens in society, not only in markets) through investments that anticipate the future and preempt future reality according to the shape desired by financial operators. Reality is transformed through the financial operators’ own ‘reflexive truth’”<sup>6</sup>.

The way Soros conceives social transformation is above all descriptive: financial and mercantile exchanges have their own logic, so that understanding this logic leads us to describe social changes, without questioning the meaning and the reasons that generate these social transformations. Among the authors who denounce the development of some of the new technologies, we discover a concern similar to Donati’s: it should not be possible to plan in an almost mathematical way the efficiency of social exchanges, without stopping to consider carefully the reason we have for seeking this efficiency.

Zuboff criticizes the way in which large digital technology companies modify the behavior of citizens. For this author, consumers are convinced that they are making free choices, when in reality they are only choosing among equal options presented to them after a rigorous control of their preferences and possibilities.

In 2016 Chinese search engine Baidu, often referred to as the Google of China, announced that its “Big Data Lab” uses location data from its 600 million users to track and predict the dynamics of the Chinese economy. The company built an ‘employment index’ for the national economy as well as a ‘consumption index’<sup>7</sup>.

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<sup>6</sup> P. Donati, M. Archer, *The Relational Subject*, Cambridge 2015, p. 239.

<sup>7</sup> S. Zuboff, *The Age of Surveillance Capitalism: The fight for a human future and the new frontier of power*, New York 2019, p. 234.

This author finds that it is a fallacy to make us think that technology has a neutral - or „consumer service” - orientation, since it is precisely those who develop technology almost always do so with the aim of obtaining economic benefits, but they may also seek to accumulate information and therefore power. His observations are critical of the social structure, while on the contrary Soros praises the social structure as a great instrument, but finally the idea that underlies both descriptions of reality is the same: the human person can be determined (for better or worse) by those who design the instruments, losing practically all his capacity to act freely. It could be for this reason that Zuboff affirms that „I consider surveillance capitalism’s operations as a challenge to the elementary right to the future tense, which accounts for the individual’s ability to imagine, intend, promise, and construct a future”<sup>8</sup>.

It is a mass manipulation of society, where individuals are at the mercy of those who own these instruments.

The evidence of our psychic numbing is that only a few decades ago US society denounced mass behavior-modification techniques as unacceptable threats to individual autonomy and the democratic order. Today the same practices meet little resistance or even discussion as they are routinely and pervasively deployed in the march toward surveillance revenues<sup>9</sup>.

Critical observations, such as enthusiastic appraisals of new technologies, could make a lot of sense if the instrumental aspect of these inventions is emphasized. The problem with this search for instrumental sense is that the judgment about their good or harmful aspect does not gravitate around the instrument, but around the person who uses the instrument, and there are not a few authors who lack a clear idea of the human person, that is, a consistent anthropology. In the case of Zuboff this seems evident, since she affirms that each person has to reinvent himself and that it is not possible to have a clear point of reference, as “nothing is given. Everything must be reviewed, renegotiated, and reconstructed on the terms that make sense to us: family, religion, sex, gender, morality, marriage, community, love, nature, social connections, political participation, career, food...”<sup>10</sup>.

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<sup>8</sup> Ibid., p. 25.

<sup>9</sup> Ibidem.

<sup>10</sup> Ibid., p. 40.

In reality, it is not easy to know whether this anthropological relativism is part of the author's ideas or whether she is actually describing it without accepting it. The point is that without a concrete idea of what the human person is, it seems very difficult to judge the instrumental sense of these new technologies. To renounce the normative character given by the human person to the instruments he or she uses would be like leaving technological development in the hands of those who invest in its efficiency or economy, without considering the final meaning of that development.

While for Zuboff the technological dynamic ends up dominating the human individual, for Schwab and other authors this same dynamic will lead to well-being and wealth. Technology can obscure or illuminate human creativity, just as it can facilitate or block interpersonal relationships. If there is one thing on which all authors agree, it is that technology has exponentially increased human capabilities, for better or for worse, for future generations.

### **FACING THE NEW INDUSTRIAL REVOLUTION: PUBLIC REGULATION OR PRIVATE EDUCATION?**

Most authors describe technological development and warn of its benefits or dangers. On the other hand, few authors question what this technological development should be like in terms of the person who uses it within a community, since it seems more immediate to judge in terms of one's own usefulness than in terms of the service that technology provides to society as a human community. For instance, „the flood of information at our fingertips does not make for greater wisdom. Wisdom is not born of quick searches on the internet nor is it a mass of unverified data”<sup>11</sup>. Not all the instruments that move us with greater speed towards a solution, guarantee that what we find is the right solution.

In the past, for example, the effectiveness of some materials as fire insulators was discovered and many of the firefighters' or military suits were made of these materials. With the passage of time it was discovered that these materials have carcinogenic properties that seriously harm the human person and the use of these fabrics for the manufacture of elements that have close contact with the human body was abandoned. In this example the judgment about the beneficial

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<sup>11</sup> Pope Francis, *Fratelli Tutti: Letter on Fraternity and Social Friendship*, 2020, n. 50.



or harmful aspect of the instrument is not in the result, since it is indeed a fire insulating product. The judgment is in the good or evil it produces for the user. In this case it seems easy to define good as health and evil as disease, but it is also not difficult to consider that in this example human nature is the standard of judgment. In short, if it were possible to adhere to a consistent conception of human good and evil, it would be easier to judge the benefit or the obstacle that the development of some instruments represents for future generations.

Most authors who describe the impact of new technologies on people and society have a point. If the description is critical, then the objective of their descriptions is to seek a solution to a problem, or at least to point out that a problem exists. On the contrary, if the description is laudatory, then its objective is to present the many benefits of this technological development in order to invite its use or approval. It seems much more difficult to find authors who, taking into account the momentum of the digital industry, robotics or artificial intelligence, propose to design a new paradigm of society, or of the relationships that citizens develop in society.

One of these authors wondering about the ideal model of social and technological development is the sociologist Pier Paolo Donati. Sociology, as Donati observes, has a descriptive vocation and therefore seeks an attentive consideration of social realities in order to explain and understand them in the best possible way. However, the same author stresses that it is not enough to describe reality in order to understand it, but that it is necessary to compare society with the best possible model of society. In other words, in order to explain the advantages and problems of today's society, it is necessary to have a concept of an ideal society, a social model that responds to what the human person is.

North American Relational Sociology was distancing itself further and further from neoliberalism's 'individual', eventually producing yet another version of the 'death of the Subject'. With it, certain questions were struck off the sociological agenda: 'What is a person?', what makes for being human and human well-being? in what do human suffering and flourishing consist, beyond the bio-physical level?<sup>12</sup>

It is interesting that a sociologist like Donati sets himself the task of questioning not only the proposals for the improvement of personal action in society,

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<sup>12</sup> P. Donati, M. Archer, *The Relational Subject*, Cambridge 2015, p. 12.

but also considers the origin and formation of the social structures currently available to us. The passage from mere description to an authentic ethical proposal seems to occur naturally in Donati and could be the result of the fact that this author has a clear idea of what the person is, the personal good, the truth of human nature, etc.

When anthropological concepts are missing or incomplete, then the description of social problems simply leads to a multiplication of the existing: either an expansion of the existing regulation is sought, without asking whether this regulation is just or adequate; or on the contrary, a multiplication of individual actions in society is sought, without stopping to consider whether this personal way of acting is the best for the human person. The first path orients the development of new technologies under the tutelage of social structures; the second path, on the other hand, orients this development under the individual responsibility of its users and to a certain extent also of its creators.

Perhaps it would be good if more authors, like Donati, questioned the reasons for technological development rather than its potential benefits or problems. In the first place, this author notes that the development of these technologies may not be so beneficial if they are actually born out of a desire to emancipate oneself from work.

The presupposition of almost all these proposals lies in the idea of liberation from work, that is, in its transformation into an increasingly free and unnecessary activity, the realization of which depends on the possibility that society - also because of an increasing "administration of things by things" - produces such collective wealth as to ensure social welfare for all regardless of the type and amount of work done (through a social welfare ensured by political means)<sup>13</sup>.

Donati's suggestion, from a sociological perspective, reminds us that efficiency is not an absolute value, but must be subordinated to the meaning that each

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<sup>13</sup> P. Donati, *Quale lavoro? L'emergere di una economia relazionale*, Genova 2017, p. 26: „Il presupposto di quasi tutte queste proposte sta nell'idea della liberazione dal lavoro, cioè nella sua trasformazione in una attività sempre più libera e non necessitata, la cui realizzazione dipende dalla possibilità che la società - anche per via di una crescente "amministrazione delle cose da parte delle cose" - produca una ricchezza collettiva tale da assicurare un benessere sociale a tutti indipendentemente dal tipo e quantità di lavoro svolto (attraverso un welfare sociale assicurato per via politica)". Translation is ours.

individual gives to his work. If we were indeed to approach a society where there is more work done, but fewer workers, we could fall into a society full of things that do not enrich man, but which, despite having more material goods, would lead to a lower quality of life. Donati seems to make these considerations thanks to his understanding of work as an element that develops the person. To work is a good for the person and for society, while to stop working - for whatever reason, also because of the abundance of wealth - would be harmful for the person and for society.

The reading of society presented by Donati seeks alternative paths to the common solutions that do not seem to him totally satisfactory. It is for this reason that he sets himself the task of suggesting a new way, where the solution does not fall solely on the individual (the social agent) nor solely on the institutions (social structure). This also leads him to reject as valid the State or market scheme, where there is a group of authors who are inclined to emphasize the goodness of the market against the damage produced by the State when it intervenes in the socio-economic march; while on the contrary, other authors will look to the State for the solution to the abuses presented by the market path. Donati will affirm that this model, which he calls dualistic, is insufficient.

The dichotomy, observes Margaret Archer, in reality was born when scientists set out to apply the laws of nature to the social organization we have created.

On the one hand, Enlightenment thought promoted an 'undersocialized' view of the subject, one whose human constitution owed nothing to society and was thus a self-sufficient 'outsider' who simply operated in a social environment. On the other hand, there is a later but pervasive 'oversocialized' view of the subject, whose every feature, beyond the biological, is shaped and moulded by the social context. Singular subjects thus become such dependent 'insiders' that they have no capacity to transform their social environment<sup>14</sup>.

The roots of the constant conflict in the tension between market and state could be found in the social rationalism of the Enlightenment. However, the current development of society thanks to the complexity and speed of new technologies makes this scheme obsolete. Neither the State has the capacity to maintain legislation adequate to the pace of development of these technologies, nor can

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<sup>14</sup> P. Donati, M. Archer, *The Relational Subject*, Cambridge 2015, p. 87.

the market sufficiently calculate the human consequences that the commercial exchange of new products and technologies causes in today's society.

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Donati recalls that if it were possible to simplify the set of social interactions, there is a group of authors who suggest leaving technological development in the mere field of science, thus achieving maximum efficiency for each citizen. On the contrary, another sector leads to the consideration of this development from the point of view of the anthropological consequences it has, always inviting to think about the freedom of the individuals who have to make use of these instruments.

In Donati's opinion, the consideration of good individual action is not enough in this sense to guarantee an authentic cooperation for the common good, since it is very difficult to calculate all the social consequences - local and global - of our participation in society. Our author observes that the idea of having good people and just structures puts traditional ethics in difficulty, because the social system is built only with relationships of people that intermingle good and bad decisions; and that give rise to harmful or beneficial structures that are not easy to foresee.

Traditional ethics finds itself in a position of difficulty precisely because it is still anchored to linear thinking, that is, to finalistic principles and to principles of linear causality, while market systems have expunged finalism and operate via functions and without a principle of linear causality<sup>15</sup>.

If we were to take Donati's call for attention as a good one, we could observe that, given the complexity of today's society, it is not enough to change agents and

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<sup>15</sup> Ibid., p. 275.

structures in order to contribute to the common good. It would be necessary, as this author believes, in coherence with his constant search for a third way, to find a new way of doing it. The way for Donati is to be convinced that human relations give rise to a way of operating in society that is constituted with a certain entity, as a community or as a group or association that guides the individual more decisively than we think.

It is at this point that Donati poses a challenge to the social doctrine of the Catholic Church. The Church's teaching encourages State authorities to live ever more justly; and at the same time, they invite the owners of the means of production to undertake social works of charity. Thus, for example, the persistent problem of poverty is addressed in a binary way:

poverty would be caused by factors (such as illness, handicaps, or old age) that could be countered solely by means of policy, that is, by assigning the responsibility to redress these problems to the State (the welfare state), and to private charity (such as charitable organizations of the Church). This is also what the Catholic Church's traditional social doctrine recommends<sup>16</sup>.

Donati goes on to explain in more detail what he would like to emphasize:

what I want to underscore here is the fact that negative outcomes (poverty, unemployment, unjust inequality) are imputed to ethically wrong behaviours and to unjust rules while it is assumed that, if agents are 'ethical' and rules just, ethically good outcomes will automatically be produced – which is not true<sup>17</sup>.

It does not seem possible to affirm that Donati reputed the social doctrine of the Church to be mistaken. Perhaps he claims that it should be complemented by a new vision of society that takes into account concepts proper to sociology. For example, the idea of the entity of social relations and of authentic relational subjects where each individual acts differently than if he or she were acting as an isolated individual with other isolated individuals. In a university classroom, each student acts freely, but does so under the academic tradition of former students. Each student knows that there is a style in the institution that allows him

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<sup>16</sup> Ibid., p. 274.

<sup>17</sup> Ibid., p. 274.

to intervene and that his interventions are valued, when he makes them at the right time and in the manner accepted by the academic community. This creates in the student the awareness of being not only an actor, but the protagonist of his own formation and this is thanks to the creation of a university as a relational subject, where those who are part of the group know that they belong to a community that they have not created, but that they have received and that they must preserve.

Charles Taylor stresses that if we lose the awareness of playing a unique role in history, which it is now up to us to represent with freedom and creativity, we lose our sense of responsibility for others. „The spread of an outlook that makes self-fulfillment the major value in life and that seems to recognize few external moral demands or serious commitments to others”<sup>18</sup>. Rabbi Jonathan Sacks refers to this way of acting as a morality.

Morality achieves something almost miraculous, and fundamental to human achievement and liberty. It creates trust. It means that to the extent that we belong to the same moral community, we can work together without constantly being on guard against violence, betrayal, exploitation, or deception. The stronger the bonds of community, the more powerful the force of trust, and the more we can achieve together<sup>19</sup>.

Perhaps these authors teach us that thanks to digital industry and artificial intelligence the market is not simply „a place” where goods and services are exchanged. Possibly they also tell us that the State is not the public forum where an exchange of powers takes place. There is neither the State nor the market, what exists are traders and buyers; rulers and citizens. When in a public space there are no relations of a ruler with a citizen, there is no State, what exists is a different social structure: a political tyranny or a kind of mercantile organization that trades with the rights of citizens, etc. In the same way, when in a space destined to commerce there are not really relations between individuals, there are only transactions, occasions of exchange of things, but not a meeting of creativity, freedom and negotiation which are elements that give rise to the market.

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<sup>18</sup> C. Taylor, *The Ethics of Authenticity*, Cambridge 1991, p. 55.

<sup>19</sup> J. Sacks, *Morality: Restoring the Common Good in Divided Times*, New York 2020, p. 41.

We could think that in his observations, Donati, rather than claiming that official Church documents should be written from a sociological perspective, recalls that the Church's social doctrine is a moral orientation that is reinvented every time the social circumstances in which the Church's faithful live demand it. If it is true, as Donati thinks, that we must abandon the State-market scheme in order to think of society as a set of relationships with their own virtues, that is, without attributing relations of fraternity to the market or relations of filiation to the State, then perhaps we could orient the Church's social thought in a new direction.

It is in this way that a civil economy arises that respects the ethical criterion of reciprocity as the moral rule of relations. In contrast to other theoreticians of the civil economy, I would like to emphasize the fact that, in order to avoid harm to strangers, it is not a matter of introducing an ethics that lies outside the market, such as one based on fraternity or love, but a matter of configuring relational networks in accordance with their inner virtues<sup>20</sup>.

We may be on the threshold of a new way of conceiving society, where problems - such as the consequences of the use of new technologies - cannot be solved either by the state or the market; but where at the same time it is not enough to form citizens who are capable of acting well within just social structures, since social dynamics have become a kind of black box that does not allow us to calculate all the consequences of personal action. What Donati seems to suggest is a greater attention to the relationships we create with our actions, independently of personal intentions and actions, independently also of the structural design of our institutions.

For example: a company that hires women with no concern for their relations with their children is potentially responsible for the harm suffered by the latter due to a lack of maternal care, which lies outside the company's organizational network (of course, the same holds true for men, because harm to children is an issue of 'parental' care, not only attributable to women). The company did not have these intentions but can produce harm in this respect, as in others, in the human environment of the territory in which it operates. Relational Reflexivity on the process requires one to see the company, the employees, and their families as a Relational Subject<sup>21</sup>.

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<sup>20</sup> P. Donati, M. Archer, *The Relational Subject*, Cambridge 2015, p. 294.

<sup>21</sup> *Ibid.*, p. 297.

## INDUSTRIAL REVOLUTIONS AND HUMAN RECONVERSIONS

In the second section of this essay we have noted that some authors denounce the goodness or harm produced by the owners of the new technological development, in particular the digital sphere and artificial intelligence. In the third section we have given ourselves the task of finding in Donati's sociology a middle way to solve this type of social problems; without leaving the solution to the purely personal training of citizens, nor to the regulatory task of technological development by state authorities. It is worth adding a response to the challenge posed by Donati to what he calls traditional ethics.

One of the clearest differences between the descriptive task of sociology and the morality taught by the Catholic Church is the practical character of the latter. Morality is a teaching proper to practical wisdom and therefore leads to action. It is not enough for morality to understand problems, but it is always oriented towards solving them. In this sense, the Church's social doctrine is concerned with rethinking society thanks to the efforts of the Church's faithful who ask themselves about the ultimate meaning of what we do, and it does so in any case to invite us to a new way of living and of using these instruments.

This social teaching revolves around „the things which become „old” as a result of being incorporated into Tradition, and which offer opportunities and material for enriching both Tradition and the life of faith, there is the fruitful activity of many millions of people, who, spurred on by the social Magisterium, have sought to make that teaching the inspiration for their involvement in the world”<sup>22</sup>.

In other words, it is not a unilateral dynamic where the Church's faithful who are experts in their respective professional fields look to official Catholic teaching for a way of acting. It is a path of mutual reflection, where, at the same time, the faithful, with their natural professional progress, generate useful ethical content so that the Church can guide other faithful, thanks to the experience of the former. This has been the case since the beginning of Catholic social teaching, when serious circumstances have demanded it, and this is what is happening now with the critical or laudatory reflections on new technologies.

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<sup>22</sup> John Paul II, *Centesimus Annus: Letter on the Hundredth Anniversary of Rerum Novarum*, 1991, n. 3.



It should also be added that the normative criterion by which the Church's social teachings judge the goodness or harm of the instruments used is more than simply human nature. It is in fact a criterion received within Christian revelation, because instruments—technical, conceptual, political or economic—are considered good when they enable a person to encounter Jesus Christ and harmful when they impede that encounter. The Bible affirms that God „wills everyone to be saved and to come to knowledge of the truth” (1 Tim 2,4). Therefore, everything that impedes access to the truth will also be an obstacle to the encounter with the divinity and therefore considered harmful to man. In short, it is an invitation to follow a person and therefore also to put aside everything that impedes the Christian vocation. Smerilli reminds us that the conviction of this vital call-vocation-generates in people and in society a change of logic.

This kind of logic, in which some individuals espouse the common cause and are even willing to lose out in individual terms because maybe someone else reasons and operates differently, especially if inclusive and universalistic, is what makes groups and organizations resistant or resilient in times of crisis, precisely because there are those who are willing in some way to sacrifice themselves for the good of the organization and common interests<sup>23</sup>.

The critical voices of the new technologies presented in the second section undoubtedly argue clearly against this problem, suggesting a resigned solution of abandoning the instruments. The Church's social teaching proposes a choice of the best path to human development, and if the use of tools is not the best path, it is not a matter of abandoning technology, but precisely of renouncing the logic with which that technology has been designed. „Nobody is suggesting a return to the Stone Age, but we do need to slow down and look at reality in a different way, to appropriate the positive and sustainable progress which has been made, but also to recover the values and the great goals swept away by our unrestrained delusions of grandeur”<sup>24</sup>.

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<sup>23</sup> A. Smerilli, *Donna Economia: Dalla crisi a una nuova stagione di speranza*, Milano 2020, p. 73: „Questo tipo di logica, in cui alcuni soggetti che sposano la causa comune e sono disposti anche a perderci in termini individuali perché magari qualcun altro ragiona e opera diversamente, soprattutto se inclusiva e universalistica, è quella che rende resistenti o resilienti i gruppi e le organizzazioni in momenti di crisi, proprio perché c'è chi è disposto in qualche modo a sacrificarsi per il bene dell'organizzazione e degli interessi comuni”. Translation is ours.

<sup>24</sup> Pope Francis, *Laudato Si': Letter on Care for Our Common Home*, 2015, n. 114.

By embracing a different logic, it is possible to use technology with complete freedom. For the sake of clarity, we could use the dynamics of the media as an example. Those who use the media are expected to use language and gestures that are commonly accepted by the users of these instruments. If a person does not appear serene or smiling in an official photograph, or does not always speak with politically correct phrases, then he seems to move freely within these instruments, he does not show himself in a certain way because he has to, but because he wants to.

If one looks closely at the social teaching of the Church, it is possible to recognize again and again the normative character of Christian revelation in the face of the natural fascination produced in the human soul by the development of its own instruments.

In a recent publication, José Luis Illanes describes social development in four historical moments that he defines as industrial revolutions<sup>25</sup>. The industrial revolution that appeared between 1784 and 1870 marked the first substantial change in technological development. The mechanization of work, the invention of the steam engine and its application to ships and trains made it possible to multiply goods, generate an urban dynamic hitherto unknown, lead many scientists to rethink society under the categories of understanding of the natural sciences, etc.

Leo XIII (pope between 1878 and 1903) wrote *Rerum Novarum*, one of the most important documents of Catholic social thought. A climate of great social upheaval was being experienced, motivated by different causes: scientists everywhere proclaimed the victory of science over religion, and the pope saw no conflict between faith and science; liberalism was here to stay, so Catholics had to be shown how to live according to Catholic principles, not simply by surviving, but by being active and loyal citizens. Violent anticlericalism in France and Italy had taken away the Church's temporal lands and powers, and confronted the pope, trying to confiscate the Church's properties. Catholics could not participate in Bismark's government. Labor problems multiplied with the industrial revolution, and power and money multiplied in the hands of a few owners, while the masses were reduced to destitution and slave labor conditions. Socialist policy called for

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<sup>25</sup> J. L. Illanes, *Prologo w: Melé, El valor humano y cristiano del trabajo. Enseñanzas de S. Juan Pablo II*. Navarra 2020, p. 21.

class struggle, for children to be under state supervision, for the elimination of private property, all in an attempt to „solve” the social problem and make all men „equal”.

Rerum Novarum responds to these conflicts by stressing the principles that truth and justice dictate in order to raise the question of the condition of the working classes and the relative rights and mutual duties of capital and labor. First, the Pope addresses private property and human rights. Secondly, the Pope recalls that there are rights that must be preserved against the State in life: (1) Natural right, everyone has full freedom to observe virginity or to marry. (2) The family has at least the same rights as the State in the choice and pursuit of the things necessary for its preservation of just liberty. (3) To enter into a society of association is the natural right of man, and the State should not forbid it: it would be contrary to the principle of its own existence, that is, to the natural tendency of man to dwell in society. Leo XIII, as Donati suggests, proposed as a solution to the conflict of his time to create associations, which was a novel solution as a middle way between the State and the market. At the end, „Leo did not explicitly or precisely discuss trade unions as we now define them, and he clearly preferred other associations as the way to address working people’s concerns”<sup>26</sup>.

There was a second industrial revolution that lasted from 1870 to the first half of the 20th century, the result of the growth of the possibilities of new energy sources (gas, oil, electricity) and the introduction of materials of chemical origin to the new transportation and communication systems, which led to technological development for people as numerous as China. This industrial revolution came a little late to China, but in about ten years this country managed to lift more than three hundred million citizens out of the poverty line (set by the World Bank at \$1.90 per capita per day).

In his encyclical letter *Quadragesimo Anno* written in 1931, Pius XI indicated that corporatism could be a solution to achieve social justice. It is an affirmation that accompanies the definition of some important principles of the Church’s social doctrine, such as subsidiarity. This document is a sign of courage as the Pope writes that the State cannot ignore the values of the family and the smaller

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<sup>26</sup>J. Boyle, *Rerum Novarum (1891)*, w: Bradley, Gerard V., Brugger C. E. (red.), *Catholic Social Teaching: A Volume of Scholarly Essays*, Cambridge 2019, p. 83. doi:10.1017/9781108630238.004.

communities, when Stalin consolidates the Soviet empire with the expropriation of the means of production, when the German parliament is dominated by a majority of the National Socialist Party and when Italy has already been under Fascist rule for nine years. All this after the economic crisis of 1929 and a series of international conflicts as a result of that financial catastrophe. It is not surprising that the subtitle of the encyclical is „on the reconstruction of the world order”.

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In the midst of the Cold War and in the face of events of great international tension such as the missile crisis of 1962, John XXIII gives priority in his considerations to political action, leaving economic issues for later. In any case, while *Mater et Magistra* deals above all with economic issues, *Pacem in Terris* will deal with the political conditions of John XXIII’s time, the latter being the most delicate due to the threat of a new world war, the process of de-colonization, social injustices in many developing countries, etc. Specifically, the social thought of John XXIII will have three fundamental points. Political authority comes from God and not only from the majority that elects it. The purpose of that political authority is the service of the common good, which does not mean that the individual can be ignored, but that the state must develop with attention to the natural law. Thirdly, a privileged means of protecting the individual are human rights, to which the Pope gives great importance in his considerations.

The third industrial revolution that began in the second half of the twentieth century is the result of the rapid growth of the digital sphere, of the world of the Internet, of instant communication, of the information society in which each individual wants to receive more and more information about others and to inform

others about his or her own life. The ethical desire for a good life is resolved by the online appearance of one's own life as something very good, at least within the digital profile. This appearance of the goodness of one's own life does not guarantee the goodness of one's own life in reality, but in any case the technical means chosen since the beginning of this millennium are increasingly virtual, but for that, no less real.

At the end of the 19th century, the social teaching of the Church helped to bring workers and owners of the means of production closer together without generating violence. At the same time, in the first half of the 20th century, it encouraged investors in rich countries to respect the rights of the inhabitants of poor countries. Later, he would propose greater collaboration between people from different social backgrounds and with different degrees of education. The Church's social teachings have undoubtedly contributed to an improvement in the society of his time and since then several social encyclicals have been published that have been of great relevance to the Church's faithful, however an encyclical on the ethical dilemmas of the new technologies has yet to be written. It would not be difficult to observe that the guiding principles of this development hinder an attentive reflection on its evolution, since due to its great speed and complexity, it seems necessary that experts in the development of these technologies, usually lay faithful, offer elements for an ethical judgment based on the truth about the human being and his nature.

Without yet having an encyclical on the digital world, we are now in the midst of the development of artificial intelligence, which for some authors constitutes a fourth industrial revolution and also represents a moment of fascination with technology. „The Fourth industrial revolution is a new chapter in human development, on par with the first, second and third industrial revolutions, and once again driven by the increasing availability and interaction of a set of extraordinary technologies”<sup>27</sup>.

Tools capable of identifying human choices and categorizing them through the use of statistics will allow these robots to „understand” human beings, to help them in the realization of their desires, to serve them or to enslave themselves to human impulses. Faced with this new era of technological development, the social teaching of the Church is challenged to apply a series of important and

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<sup>27</sup> K. Schwab, N. Davis, *Shaping the Fourth Industrial Revolution*, Geneva 2016, p. 7.

even essential values for society, which do not necessarily lead to the building of a more economic, more efficient or more productive society.

The Church's faithful who are experts in the fields of the new technologies of the digital industry and artificial intelligence also have a responsibility to contribute their thinking and ethical judgments to the Church's social doctrine. For this it would be necessary to face some of the challenges that, in the opinion of Pier Paolo Frisoli, this technology poses to society<sup>28</sup>.

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The digital sphere must also be Christianized, without becoming worshipped. It is important to avoid that the majority of the population considers itself the protagonist of its own choices, when in reality it is simply guided by a great cinematographic set. An important reflection should be made on the real possibility we have to know the truth and defend it, that is, on the best sources of information and the discipline necessary to reach them.

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First challenge, an increasing cultural homologation, where we all have access to similar information, profiled for us thanks to our online choices. „[Christians] live in their own countries as though they were only passing through. They play their full role as citizens, but labor under all the disabilities of aliens. Any country can be their homeland, but for them their homeland, wherever it may be, is a foreign country”<sup>29</sup>. So that the digital sphere must also be Christianized, without becoming worshipped. It is important to avoid that the majority of the population considers itself the protagonist of its own choices, when in reality it is

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<sup>28</sup> Personal interview with Fr. Pier Paolo Frisoli in Rome, September 7, 2021.

<sup>29</sup> Letter to Diognetus.

simply guided by a great cinematographic set. An important reflection should be made on the real possibility we have to know the truth and defend it, that is, on the best sources of information and the discipline necessary to reach them.

Second, a great rational alienation, since social media allow us to multiply the number of contacts exponentially, which can be interesting if we can also multiply the content we give to those contacts. The faith of Christians gives tone and meaning to one's own conversation and life, filling our language with content. Maintaining contacts without filling them with meaning leads us to dialogue with the platforms and not with the people we wish to meet on them.

Finally, a greater moral contamination, because today there are unfortunately more than 260 million pornographic websites and this leads to a multiplication of situations and conditions in people that would not occur without access to this information that is so harmful to the human person.

Artificial intelligence will see its development in the decades to come and then the Church's reflection will have clearer elements to describe the ethical sense of the potential use of robots. For now, perhaps it is enough to remind so many experts in these fields of technological development that we are facing a moment in history in which we should remember the instrumental nature of what we do, in order to courageously direct technological development towards our service, without submitting ourselves to the speed, complexity and ease with which they have been designed for us.

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## **Biogram**

Cristian Mendoza is associated professor of Catholic Social Doctrine at the Pontifical University of the Holy Cross; E-mail: [cmendoza@pusc.it](mailto:cmendoza@pusc.it)  
ORCID 0000-0002-1496-3743