

TECHNOLOGY AND ETHICS *Guardini's Legacy in Laudato Si*

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Abstract

In this paper I argue that Pope Francis, as well as the author quoted by him — Romano Guardini, agree that technology is intrinsically a human dimension of life that is ambiguous. On the one hand, it has to be approved and used for higher goals, on the other is always to be evaluated and confronted with real and true values. Technology is destined to help nature but is radically based on, rooted in and dependent on it, as is the case of the relationship between nature and culture, and nature and grace. Humans must not let themselves be ruled by “impersonal forces.” Development — that not always is a true progress — will not be infinite.

Keywords: *Laudato Si*, Catholic Social Teaching, Ecology, Francis, Romano Guardini, Technology

1. Historical Background

Even a short look at the history of humanity is enough to understand that an axial shift, a shift in the centre of gravity has occurred several times. Human life with all that it encompasses (science, art, faith...) has usually rotated around something — a value, a principle, an idea, so that we can observe different phases in the development of humanity: *theocentric*, *heliocentric*, *geocentric*, *anthropocentric* periods that are not clearly separated from each other but inter-penetrate themselves. We see that the criterion for

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evaluating and measuring the universe has become increasingly anthropocentric and the scale was getting subtler. What is or will be the next stage? We can assume that, in an era when there are voices to be heard proclaiming a post-human era, a *technocentric* period is most obvious to come. Industrial and scientific achievements, and not least visual media businesses have been showing us and maybe preparing us for a period where machines and technologies, represented by so-called artificial intelligence, will dominate our lives.

The problem lies not in the entity, around which our life moves, because in that case it is only a reference point to which we are oriented. Of greater cause for concern is the emerging tendency for “-centricity” to become “-cracy”. Such a shift is evident when we see a shift in a perception from being ruled by a God that is omnipresent in human life in the person of a representative of Him (*theocracy*), through a stage where human being is centred on himself/herself, being his own dominator, until we arrive at the state where we realize we are not the centre of the world, and are being guided by something other (*technocracy*). Indeed, in many cases life is being decided by whether a machine works or not, whether a nation has enough capital to buy the newest technology in order to compete with others or not, etc. Theologically, the problem is how to talk of human responsibility and in how to consider oneself still as God’s creature, living in His hands and from his mercy, if we can effectively supply better solutions. The idea of the Christian God as such has no difficulty in being reconciled with true human autonomy and responsibility, as well as with human scientific-technical development. God is not a rival that competes for his central role and fights his competition partners because He keeps being the centre through human being and the works of his/her hands.

2. The Value of Human Progress

The word technology comes from the Greek term *téchnē*, which means not only skill or craft but also art. According to Aristotle, it deals with variable things and it is one of the virtues of thought corresponding to the human faculty for making (*poiēsis*): *téchnē* is a disposition for producing.¹ Technology as the sum of an array of

¹Cf. Aristotle, *Nicomachean Ethics*, VI.4, 1140a1-23. In a paraphrased form, his reasoning is this: “*Technē* is a disposition that produces something by way of true reasoning; it is concerned with the bringing into existence of things that could either exist or not. The principle of these things is in the one who makes them, whereas the principle of those things that exist by necessity or by nature is in the things

various techniques developed by human being, qua intelligent being, aims at making the world “more useful and more beautiful,” as Hannah Arendt wrote.² That is to say technology is something instrumental, rather than being a goal in itself as acting is.

It is admitted that a genuine feature of the human being is not only to adapt oneself to the milieu in that he or she lives, but moreover to form and develop it creatively. In other words, the human being does not act in accordance with his or her instincts which are to be actualised, but invents tools, ways of doing things easier, more effectively, etc. Even from the Christian point of view, the world to live in is not given to human being as a ready-made place, but as semi-finished product to be worked on and perfected, “as its co-creator.” It would be a false view of the universe to think that humans have to undergo/suffer docilely or submissively the forces of nature, the corruption of fallen creaturehood e.g. diseases, without doing anything to subdue or eliminate them. Human being is certainly *conditioned* by his/her belonging to nature and his/her natural disposition, but he/she is not totally *determined* by them.

The question is where this development, self-perfection and evolution can and may lead. Is it possible that human being invents a tool that he/she is not able to handle? The risk that underlies this process is that humans — thanks to their capacity and power — forget that they are limited beings and not owners of their own selves, falling into an illusion that they were omnipotent. As a matter of fact, science seems to be able to resolve (now or soon) almost any problem and it has indeed resolved many difficulties that in the past were thought irresolvable. But is it our goal to create a life without any difficulties? The importance of ethics lies in reflexion and distinguishing between what we can do (because we are able to) from what we may do (because we are allowed to, or better, because it is in fact good). Nature-centred science may offer many responses to how things are to be done better, but the question remains as to who/what we are and why things have to be done.

themselves.” Cf. R. Parry, “Episteme and Techne,” *The Stanford Encyclopedia of Philosophy* (Fall 2014 Edition), E.N. Zalta, ed., URL = <<http://plato.stanford.edu/archives/fall2014/entries/episteme-techne/>>. Thus, *technê* is distinguished from scientific knowledge and from moral virtue. Another feature of it is that “the value of the works of *technai* is in the works themselves — because they are of a certain sort” and that “as a rational potency *technê* is capable of contrary effects.”

²Cf. H. Arendt, *The Human Condition*, Chicago, 1958, 208.

3. Guardini's View of Technology

Guardini's critique of the modern age was conducted on various fronts or levels. His thought was not infrequently considered as belonging to a bygone era and pessimistic, but the truth is that he was oriented with hope to the future, if there is going to be any. The dimensions, with which he deals with topics akin to ours, are: *the power that humans potentially possess, the relationship between nature and culture, the false impression of human's own autonomy as an absolute subject, the reification of the human personality by impersonal forces.*³ In ways seemingly similar his contemporaries such as Scheler or Heidegger, Guardini offers a warning voice asking whether in spite of enormous progress, human is still — if not more than before — a question for himself/herself.⁴ "Question" differs here from a mere "problem", which is an object to be resolved by sciences. Despite technical possibilities, which are available to the human intellect, and despite capacities to improve and facilitate life on earth, human being cannot but be an open question that urges and disquiets.

Let us start with the relationship between *nature* and *culture*. The realm of human making and creating things belongs to the dimension of culture, which builds upon what is naturally given, developing and bringing it to perfection. The problem emerges when humans want to ignore their reality and to create a new, better nature (i.e. culture) for themselves as a sovereign creator. On the other hand, human being — even though he/she is rooted in nature — is not "a natural being" for Guardini. He/she has his/her being at an intersection between material and spirit, nature and grace, body and soul. Human being does not have a "nature" in a natural sense but his/her world has to be co-created by him/her and nature cannot but remain from the very beginning in relationship with grace:

³Guardini's ethical works that we take into consideration here in respect to our topic are: *Die Technik und der Mensch: Briefe vom Comer See*, Grünewald: Mainz 1990² (orig. 1927); "Reflexionen über das Verhältnis von Kultur und Natur" (orig. 1931), in *Unterscheidung. Gesammelte Studien: 1923-1963*, Grünewald – Schöningh: Mainz – Paderborn 1994-1995³, vol. I, 206-224; *Das Ende der Neuzeit. Die Macht*, Grünewald – Schöningh: Mainz – Paderborn 1986 (orig. 1950/1951, English transl. *The End of the Modern World*, ISI books: Wilmington, 1998); *Sorge um den Menschen*, vol. I, Grünewald – Schöningh: Mainz – Paderborn 1988⁴ (orig. 1962). For practical reasons, we refer to the original German edition of Guardini's works. See also H.D. Mutschler, "Guardini und das Problem der Technik," in H.J. Schuster, ed., *Guardini Weiterdenken*, Guardini-Stiftung: Berlin 1993, 203-216.

⁴Cf. R. Guardini, *L'uomo. Fondamenti di una antropologia cristiana*, Opera omnia III/2, Brescia 2009, 83; M. Scheler, *Die Stellung des Menschen im Kosmos*, Darmstadt 1928, 13; M. Heidegger, *Kant und das Problem der Metaphysik*, Frankfurt 1998⁶ [orig. 1929], 209.

From the other side, man is thought and desired by God as a being, who(!) lives from grace; thus he becomes perfected in being, or at the end capable of being, as soon as grace is given to him. [...] His *Dasein* is not only "nature" in the sense, in which a plant or an animal are. He is oriented towards grace, i.e. a personal relationship to a loving and gracious God. Moreover, in this relationship man becomes for the first time that being that he has to become according to God's will. Only in that arises his proper nature... The perfected human nature is a fruit of grace.⁵

Human being has no nature that is beforehand given and fulfilling itself in a simple development. His/her being consists moreover in the fact that he/she has to transcend the "merely human" into the divine and only in that to obtain the "actually human," thought by God. Brought to extreme, the "nature" intended by God is not the first but the last thing. The totally "natural" human, the pure, full and free, the "beautiful" fulfilment of the being-human stands only at the end, not at the beginning and it is a fruit of self-offering to what there is above the human. (The "natural" human of the Modern era is an expression of alienation from God and of the regression of the human's image into the natural.)⁶

To be/become a man/woman is a task that involves a risk: through his/her own perfection man/woman is able (and destined) to become continually more human, but he/she can decline that possibility and become *un-human* as well.⁷ The decisive factor is whether a person pursues a true end implicitly related to God. Faith in Christ, above all, helps us to realise that true humanity, rather than destroying what is natural and carnal but in its fulfilment in him/her. Similarly one can state about nature: through the work of grace and the amelioration of the human nature participates in redemption, but on the other hand it always runs into the danger of staying as *only* nature, which would in the end mean to renege on its proper *raison d'être* and so become an *un-nature*.⁸ Indeed, the original form of nature as well as of human being consists in the state of the final redemption where nature is permeated with culture and with grace.

⁵R. Guardini, *Ethik*, 1208 (translation by the present author), cfr. also 7, 589, 1262; *Christliches Bewußtsein*, 106; "Der Glaube an die Gnade und das Bewußtsein der Schuld," in *Unterscheidung des Christlichen*, II, 116; *Freiheit, Gnade, Schicksal*, 132 fn. 18; *L'uomo. Fondamenti di una antropologiacristiana*, 319.

⁶"Der Glaube an die Gnade und das Bewußtsein der Schuld," in *Unterscheidung des Christlichen*, II, 116.

⁷Cf. *Freiheit, Gnade, Schicksal*, 85; *Das Ende der Neuzeit*, 61; *Wurzelneinesgroßen Lebenswerks*, III, 326; *Grundlegung der Bildungslehre*, 61.

⁸The non-nature is an opposite to "naturality" and a side effect of entering of the grace into nature (cf. *Unterscheidung des Christlichen*, I, 186; *Briefe an Josef Weiger*, 147).

What can be said then about the relationship between nature and culture?

- Nature, as well as culture, is only a “limit value”;⁹
- their relationship is complex, because they condition each other mutually;¹⁰
- nature is the point of departure, but that does not mean it is “mere” material or stuff for the culture to be built upon;¹¹
- there is no pure nature,¹² but only the one that is intrinsically oriented to its accomplishment in culture, that is because nature is fundamentally human nature;¹³
- from the other side, culture begins with an act that radically dissolves (*aufhebt*) and transcends nature,¹⁴ there is however no pure culture independent from nature;
- human are beings capable of taking distance from nature, and that is because the world is not simply nature, but “nature” of second grade;¹⁵
- sin is not natural at all, but makes part of the non-nature of human being.

For Guardini, neither the human subject, nor nature considered as mother in the Modern era, nor culture as a work of human auto-redemption can be absolutised. Technology — entrusted to the human intellect — is a means for exploring the natural world, for making the *Umwelt* a better place to live in, and for helping human to achieve their goal and fullness of being. It is however not for the purpose of conquering the Earth, to replace imperfect nature with a better solution or to absolve human being from the bond between these two. In Guardini’s view, which is always a “polar” way of seeing things, a chemically pure entity does not exist: in reality we do not find any totally “natural” nature (in the sense of Rousseau’s *honnêtehomme*, or of the romantics or of some Russian novelists who called for a return to the nature as the best state) or a completely

⁹Cf. *Unterscheidung des Christlichen*, I, 164.

¹⁰Cf. *Unterscheidung des Christlichen*, I, 218.

¹¹Cf. *Unterscheidung des Christlichen*, I, 213.

¹²Cf. *Unterscheidung des Christlichen*, I, 209.

¹³Cf. *Unterscheidung des Christlichen*, I, 222.

¹⁴Cf. *Unterscheidung des Christlichen*, I, 212.

¹⁵Cf. “Die Bereiche des menschlichen Schaffens” (orig. 1938), in *Unterscheidung des Christlichen*, I, 226, 231.

“cultural” culture without a respective connection with nature. Moreover they penetrate each other mutually. However, it is also true that nature rebels against the grace that wants to perfect it, although they presuppose each other. The underlying fundamental idea of Guardini here is the conviction that there was a sort of *paradigmatical shift* in history: while nature was adored as quasi-divine in the Enlightenment (Goethe, Rilke, etc.), late moderns take it as material that has to be dominated. In his own words,

[the technology] has grown up slowly in the course of the 19th century, but was a long time supported by a non-technological kind of man. It seems that man, that is suitable for it, has made his own way only in the recent decades, definitely in the last war. This man does not perceive nature either as a valid norm, nor as a vital anchor. He sees it without presuppositions, factually, as space and stuff to work with, into which everything will be thrown, regardless of what will happen with it. It is a work of Promethean character in that being and non-being are concerned.¹⁶

Science as a rational comprehension of the real and technology as an inclusive concept of the actual disposition made possible through science give to *Dasein* a new character: the character of power or lordship in an acute meaning.¹⁷

The vocation of the human being, qua “*imago Dei*,” is to administer the world, but in his/her state of imperfection human being is not yet capable of dealing with using unlimited power.¹⁸ Still in the 60’s Guardini defends the opinion that technology is humanly and ethically speaking in its infancy.¹⁹ Although Guardini nourishes respect for the past, it has to be said that he is not committed to a kind of nostalgia which would like to return to the Middle Ages as if it were a golden era in the history of humankind. Therefore there is always the temptation of the “old self” to exploit resources, rather than use, conserve and perfect them.

As for the other points of criticism, it has to be stressed above all that Guardini aims at protecting the human person against impersonal forces (*Es-Mächte*), which threaten human freedom. Human being has a special place among all creatures and is endowed with “power”, but this can easily reduce itself to mere “aggression”. One of the limits, inside of which technological progress has to move,

¹⁶*Das Ende der Neuzeit*, 50 (translation by the present author).

¹⁷*Das Ende der Neuzeit*, 131 (translation by the present author).

¹⁸*Das Ende der Neuzeit*, 76.

¹⁹*Sorge um den Menschen*, I, 54.

is respect for the personality of human beings. Thanks to technological achievements, unfortunately, the human person has been jeopardized by many things — from the totalitarian state to absolutised natural forces. For Guardini, on the contrary, the only possible way of dealing with a person is in an *encounter* as happens between two “I”, in contrast to a *collision* occurring between two physical objects. The greatest threat, danger for humans does not originate in nature, that only has to be tamed, but comes from within oneself — from the being seized by the illusion of the own autonomy. In other words, human is a being that is capable of perfecting himself/herself, but at the same time also of destroying himself/herself. Either the human is respected as a spiritual reality called “person”, or he/she abandons himself/herself unto impersonal forces, for example destiny, mass, pure reason, etc.²⁰ Notwithstanding the liberation of reason from the dogmatic faith of the past, it is interesting to observe as science and its extension — technology — have come to be treated in a way analogous to faith: faith in progress, according to Guardini, as well as modern totalitarian and atheist ideologies do have the features of a religion.²¹ Neither science nor culture can save the human, they can only help humankind to facilitate the way and to reaching its goal. Nevertheless, modern achievements are for Guardini not something demonic, but are to be used with respect to values without forgetting that to be human equals having a spiritual side as well. As a matter of fact, true scientific evolution and discoveries were made possible through Christianity:

And it is also not true that that event is anti-Christian. The mentality active in it can often be there; that event as such not. Science, technology and whatever originates from them, they all were made possible only through Christianity. Only a man, to whom the God’s immediacy of the redeemed soul and the dignity of a reborn one have given the consciousness that he is different from the world around him — only this one could ever stick out from the ligament with the nature, as it did the man of the technical era. Antiquity would have considered it being an expression of *hybris*.²²

²⁰Cf. *Das Ende der Neuzeit*, 59; *Die Existenz des Christen*, 29.

²¹Cf. *Das Ende der Neuzeit*, 66; *Sorge um den Menschen*, I, 108; *Ethik*, 412. The source of evil lies in human being and therefore he/she cannot be taken in a too naïve a way. However, neither the optimism of science nor the pessimism of those who focus on human being’s wickedness is a true approach to existence. The forces necessary to hold power in order do not come from science and technology. That is why a non-believer cannot responsibly administer the earth (cf. *Die Existenz des Christen*, 492).

²²*Die Technik und der Mensch*, 74 (translation by the present author).

Finally, another issue connected with technology needs to be pointed out: technology has changed the rhythm of life and the entire lifestyle of human being, unable to rest, since technology makes it possible and necessary that production does not cease. The Modern human with hi/hers alleged maturity has created another phenomenon: the cycle of life loses its variability and rhythm.²³ Technical and social development have destroyed the equilibrium between contemplation and action. Technology has also changed the relationship of the human towards reality and towards his/her works, making it rather indirect, abstract, factual, without an adequate experience of reality.²⁴ One of the issues the Modern era has to deal with is what should be done with leisure time, made possible, more available thanks to science and technology.

We can rightly conclude that in Guardini, as well as for any catholic theology, technology is something ambivalent. It moves always between “being used” for some purpose and simply “being abused.” The world of science and technology is a realm of purposes and utility, rather than truth. The fact that the pharmaceutical industry and medical research can protect and enhance human life, but also leads to the production of chemical weapons, does not entail the conclusion that science is dangerous and therefore bad. As with any other means, technology has to be used in the light of reason and of conscience. It is true that nature is not a source of redemption and cannot be looked upon as an object of hope, but this affirmation does not want to say that nature is — from the Christian point of view — to be despised.²⁵ The famous statement of Lynn White Jr. that the Christian worldview stands behind the ecological crisis, is not to be taken too simply.²⁶ Creation is entrusted to humans so that they might profit from it, but also that they might take care of it responsibly. In the end, Guardini tries to be an optimist admitting that we need more technology, but a more human and responsible, and more science, but a more spiritual and responsible one, related to a new humankind.²⁷

²³Cfr. *Wurzelneinesgroßen Lebenswerks*, IV, 44.

²⁴Cf. *Das Ende der Neuzeit*, 60.

²⁵For this idea I am indebted to a conference held by prof. Stefano Zamboni at the annual forum of the Pontifical Academy of Theology, to whom I would like to thank in this way.

²⁶L. White, “The Historical Roots of Our Ecological Crisis,” *Science* 155 (1967) 1203-1207.

²⁷Cf. *Die Technik und der Mensch*, 75.

4. The Encyclical *Laudato Sí* (2015) and Ethics of Technology

Pope Francis is known to have been interested in Guardini when young, although he does not mention him among authors that are particularly important to him. However, in the recent encyclical letter the quotes from Guardini are surprisingly numerous.²⁸ It is considered an “ecological encyclical” that deals pre-eminently with environmental protection, pollution, integrity of creation and other issues. But even technology has its place among them because it stands behind many of the abovementioned problems. The Pope’s approach is holistic: human is not the lord of creation but is its head and as such a part of it. The earth humans live on is not only a transitory dwelling place, but a common house (in Greek *oikos*). As mentioned at the beginning, the Pope also points out two problematic features of the modern society: an excessive or tyrannical/misguided/distorted anthropocentrism (ch. 3, III, § 115ff.) and a new — technocratic or techo-economic — paradigm (ch. 3, I-II, § 101ff.). Paradoxically, the extreme concentration of human beings on themselves brings them to a failure to really see the human as such and to surrendering humans to other forces — different, of course, from God. Exaggerated anthropocentrism has led, according to Francis, also to a double effect: “exaltation of the subject” that wants to make of everything its object, to possess and to exploit (§ 106), and “practical relativism” that is indifferent towards anything that does not serve its needs (§ 122). Similar to Guardini, for the Pope neither utilitarianism nor hedonism in itself is a problem, but the striving for and the dealing with the power.

In the first place, Pope appreciates the efforts of scientists that seek to resolve problems of human life. But immediately he warns of the risk of devastating the earth for higher goals:

We must be grateful for the praiseworthy efforts being made by scientists and engineers dedicated to finding solutions to man-made problems. But a sober look at our world shows that the degree of human intervention, often in the service of business interests and consumerism, is actually making our earth less rich and beautiful, ever more limited and grey, even as technological advances and consumer goods continue to abound limitlessly. We seem to think that we can substitute an irreplaceable and irretrievable beauty with something which we have created ourselves (§ 34, cf. § 102).²⁹

²⁸Cf. Paragraphs 105, 108, 115, 203 and 219 (in all cases the quotations are from *Das Ende der Neuzeit*). However, we can assume that the Pope is drawing inspiration from Guardini in the case of much more paragraphs and ideas as well.

²⁹The quotations are taken from the official English on-line version (cf. http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html).

The reason is to be found in a partial view that looks only at one to-be-resolved problem, without paying any attention to the side effects.³⁰ That is why we need a “new synthesis” different from the former false dialectics (Cf. § 121). And still worse is the connection with business, and hence the financial motivation: “Technology, which, linked to business interests, is presented as the only way of solving these problems, in fact proves incapable of seeing the mysterious network of relations between things and so sometimes solves one problem only to create others” (§ 20).

In other words, the Pope is criticising the subordination of technology to profit. The consequence is that politics is ruled by economics and technology, which become mere instrument of power. The everyday problems of real men and women are often secondary. Technology, according to Francis, is never neutral but has to be oriented to some goal — good or bad (cf. § 107, 114). From there comes the main presupposition of the encyclical: the roots of the ecological crisis are *human*. The spirit of globalised, insatiable technology expresses nothing but the fact that “a constant flood of new products coexists with a tedious monotony” (§ 113).

Further, the Pope points out that technology, i.e. machines and systems, are not destined to become substitutes for human being: technology cannot replace human work that has an intrinsic value. Life and human society cannot be simply organised as a *mechanism* following the principles of higher efficiency, because to be human means to be and to form an *organism* with parts not related reciprocally because they need each other, but because they are parts of one body. The common life must not be led by the logic of “disordered use” (§ 69) or “consuming (more than necessary— which is the temptation)” (§ 123), but by mutual co-existence. In spite of facilitation that the science may bring, people are not to be substituted nor exempted from working:

We were created with a vocation to work. The goal should not be that technological progress increasingly replace human work, for this would

³⁰Cf. § 110 (“The specialization which belongs to technology makes it difficult to see the larger picture. The fragmentation of knowledge proves helpful for concrete applications, and yet it often leads to a loss of appreciation for the whole, for the relationships between things, and for the broader horizon, which then becomes irrelevant. [...] A science which would offer solutions to the great issues would necessarily have to take into account the data generated by other fields of knowledge, including philosophy and social ethics; but this is a difficult habit to acquire today”).

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 fulfilment. 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 favoured 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 (§ 128).

Although the Pope's view is rather a strict one, he does admit that science and new technologies are God's gift and that scientists need to be allowed to use them properly:

Human creativity cannot be suppressed. If an artist cannot be stopped from using his or her creativity, neither should those who possess particular gifts for the advancement of science and technology be prevented from using their God-given talents for the service of others. We need constantly to rethink the goals, effects, overall context and ethical limits of this human activity, which is a form of power involving considerable risks (§ 131).

In other words, "technology has remedied countless evils which used to harm and limit human beings" (§ 102) and as such is to be approved. However, we have to be aware that any development is not automatically true progress. We must look at reality globally and in the long term, since not everything that raises the standard of living here and now can be considered a real perfection.

Put simply, it is a matter of redefining our notion of progress. A technological and economic development, which does not leave in its wake a better world and an integrally higher quality of life, cannot be considered progress. Frequently, in fact, people's quality of life actually diminishes — by the deterioration of the environment, the low quality of food or the depletion of resources — in the midst of economic growth. In this context, talk of sustainable growth usually becomes a way of distracting attention and offering excuses. It absorbs the language and values of ecology into the categories of finance and technocracy, and the social and environmental responsibility of businesses often gets reduced to a series of marketing and image-enhancing measures (§ 194).

Therefore, the Pope refuses any naturalistic tendencies that would like to return to a pre-technical age (§ 114); moreover humanity needs to learn a responsible use of the power created by technology.

Human being has to remain free.³¹ As was the case for Guardini, he admits that we need to calm down, rediscover values and goals, as well as the direction of mankind that is not to be forgotten (cf. § 200). The negative results of a technology separated from ethics seem to be evident (§ 136).

The question is, can progress be infinite? From the viewpoint of Christian eschatology it seems not, because life on earth is not true and definite “blessed life”. Therefore, also technology and other ways opened by science should be looked upon as transitory instruments that are valid only for a certain amount of time and never able to redeem human being from all of his/her difficulties. Hence, progress has to be moderate and as universal as possible. The human being is lord and head of creation with the duty to guide in to salvation, but he/she is not its only lord and the world is not human being’s final habitat. New technologies create new, bigger powers, but human being has to make an effort to have and to use means to limit it (cf. § 105) because unlimited forces lead to formlessness and destruction, especially when concentrated in the hands of a few.

5. Conclusion

Technology has permitted humans to free themselves from the dependence on nature, but at the same time has made it possible to dissolve the bond with reality. Humankind creates a new reality that claims to be more real than the original one. But in this way it abandons the truth of being. In the Christian view, God does not need to struggle for the right to be the centre of all, because he dwells in the centre of all reality, without being a competitor with human being. Moreover he wants that humans act in his name and He through them.

Without regard to if *techné* is synonymous with *episteme* or if it is a kind of art, according to Plato or Aristotle, technology is and has to be an eminently human domain, not only a set of practical skills or techniques — driven by utility or gain — but rather an art that helps humans to express themselves and to create new things making the world more beautiful — however always as a penultimate reality. “Artificial” does not need to have a negative connotation only, in contrast to “natural”, since nature is not a source of perfection but

³¹“We have the freedom needed to limit and direct technology; we can put it at the service of another type of progress, one which is healthier, more human, more social, more integral” (§ 112).

needs to be cultivated. Both, Guardini and Pope Francis would agree on the statement that technologies are not to be only a product of human being, but also a genuinely human work that has to be continuously evaluated and confronted with the truth and the ultimate end. Indeed, there is always a risk that technology — which is only a means — becomes self-sufficient. Attention has to be paid to the danger that technologies that can save human lives become economy-driven and utilitarian. The abovementioned problems are still actual and humans will need to rethink how to handle the freedom and power, which are born out of facilitation that science and technology have brought. Technology does not have to be the only way we relate with reality, but we also need an experience of its beauty.

Nature and life can and may be helped by machines, but they are not to be programmed for a higher efficiency only. The reason for it is that life is something spontaneous and paradoxical, and therefore sometimes incalculable. From the genuinely Christian point of view, a truly moral agent can only be a being that is free and involves the risk to choose a decision that is less efficient but nevertheless good. The Christian human task is “to live in the world” with everything that it encompasses (nature, science, etc.), but not “to be from the world”, i.e. not to seek in it their own fulfilment. More than only technological progress, a really human development in all its dimensions is desirable — conscience, emotivity, art, spirituality, etc. The goal of science remains: to resolve, to reduce (and if possible to avoid) problems. This does not mean, however, abolishing every difficulty in life since that is and will be impossible; not every difficulty is a resolvable problem or an evil to be got rid of, but rather a mystery.