"New technologies and the noble vocation of the business leader"
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SUMMARY

This paper analyses how business —through the three pillars of its service to the common good: Good work, Good goods and Good wealth— can positively contribute to the ethical deployment of new technologies: artificial intelligence, robotics and other technological innovations. These three pillars provide the foundation for transforming day-to-day business into a noble vocation.

The main challenge of business in the 21st century is to become a driving force in the comprehensive development of humankind: *of the whole man and of every man.* Nowadays, businesses need to play a more significant role to: help address socioeconomic changes; face the great challenges of the present and the future; and support the implementation of more intelligent, sustainable and comprehensive growth plans. This can be pursued by creating quality jobs, and by making the economy more inclusive, with better labour markets, greater environmental conscience, and through the ethical use of technology. Business should be at the service of people and aimed towards their common good, while helping to shape a better society. At the same time, ethics should be the compass that guides the actions and activities of business leaders.

These vitally relevant social responsibilities are at the core of S.S. Francisco's call in §203 of *Evangelii Gaudium* where he states that "the dignity of each human person and the pursuit of the common good are concerns which ought to shape all economic policies. At times, however, they seem to be a mere addendum imported externally in order to fill out a political discourse lacking in perspectives or plans for true and integral development. It is irksome when the question of ethics is raised, when global solidarity is invoked, when the distribution of goods is mentioned, when reference is made to protecting labour and defending the dignity of the powerless, when allusion is made to a God who demands a commitment to justice. At other times these issues are exploited by a rhetoric which cheapens them. Casual indifference in the face of such questions empties our lives and our words of all meaning." He concludes this paragraph by masterfully summarising the meaning of the noble vocation of the business leader: "Business is a vocation, and a noble vocation, provided that those engaged in it see themselves challenged by a greater meaning in life; this will enable them truly to serve the common good by striving to increase the goods of this world and to make them more accessible to all."

Consistent with the above, in the encyclical *Laudato Si'* S.S. Francisco criticizes the new technocratic paradigm and the forms of power derived from technology that call to seek other ways of understanding the economy and progress. He points to the loss of that sense of responsibility for our fellow men and women upon which all civil society is founded stating that our immense technological development has not been accompanied by a development in human responsibility, values and conscience. Likewise, he affirms that 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.

More recently, in his message to the World Economic Forum in Davos in January 2018, S.S. Francisco reaffirms these concepts warning us about how recent technologies are transforming

economic models and the globalized world itself, which, conditioned by private interests and an ambition for profit at all costs, seem to favour further fragmentation between states and institutions and greater individualism, rather than to facilitate approaches that are more inclusive. He calls for economic models to observe an ethic of sustainable and integral development, based on values that place the human person and his or her rights at the centre. In addition he states that artificial intelligence, robotics and other technological innovations should be so employed that they contribute to the service of humanity and to the protection of our common home, rather than to the contrary, as some assessments have unfortunately predicted.

Science, technology, and especially the free market and democracy have allowed the world to make unprecedented achievements, which are among the greatest of human civilization. These achievements must be defended and appreciated. Nevertheless, they must still be subjected to critical analysis in order to correct existing imperfections, to learn from mistakes, and to become aware of any risks or to uncover any misuse of its institutions. Nowadays, there are many problems that have arisen due to an almost deification of these key institutions. We often demand much more than they are capable of providing. The irresponsible use of the freedom these institutions have granted humans has lead to a crisis of meaning, confusion between means and ends, and an emphasis on rights while forgoing subsequent obligations.

We have forgotten that *Homo Sapiens* are the animal that searches for meaning. One thing large institutions do not do in the modern world is provide meaning. Science tells us how, but not why. Technology gives us power, but cannot teach us how to use it. Free market gives us options, but lacks relevant directions on how to make these decisions. Liberal democratic states give us freedom to live the way want, but refuses by principle to help us choose. Likewise, business provides us with work opportunities, but does not always allow us to reach our potential: to fully develop ourselves in and with our work. As a result, the 21st century has granted us a maximum amount of options with a minimum amount of meaning.

The deification of institutions and the subsequent loss of meaning highlight the associated risks of this new technocratic paradigm and the forms of power derived from developments in artificial intelligence, robotics and other technological innovations. These advances give us a glimpse of the not so far away future, and the consequences of automating labour and people's ways of life. Forecasts of great changes with significant social impacts generate expectations of a different and better world. However, alongside these hopes are concerns and fears about the dominant power that could be wielded by technological constructs, such as the increasingly more sophisticated bots, robots, androids and other forms of artificial intelligence. It is imperative, therefore, to establish an ethical framework of reference to guide the design, production and use of these technological constructs.

How can business help establish an ethical framework that fosters the creation of a better world and quality of life that in all ways is superior because of these new technologies? Can business contribute to the quest for meaning of those who work in and with them? *The vocation of the business leader (2012)*, a document produced by the former Pontifical Council for Justice and Peace, states that business leaders are called to engage with the contemporary economic and financial world in light of the principles of human dignity and the common good. This reflection offers business leaders, members of their institutions, and various stakeholders a set of practical principles that can guide them in their service of the common good. Among these principles, we can highlight the principle of meeting the needs of the world with goods that are truly good and

truly serve without forgetting, in a spirit of solidarity, the needs of the poor and the vulnerable; the principle of organising work within enterprises in ways that respect human dignity; the principle of subsidiarity, which fosters a spirit of initiative and increases the competence of the employees who are thereby considered "co-entrepreneurs"; and, finally, the principle of the sustainable creation of wealth and its just distribution among the various stakeholders.

These principles can be summarized by three pillars through which business contributes to the common good: Good work, Good goods and Good wealth. These three pillars provide the foundation for transforming day-to-day business into a noble vocation. Humanity is at the threshold of an era in which technological constructs appear ready to set off a new industrial revolution, which would probably affect all levels of society. Therefore, it is paramount to scrutinize the design, production and use of these constructs through the lens of these three pillars in order to imbue them with greater nobility by considering ethical consequences without hindering innovation.

Given the great dynamic complexity of this issue, the main challenge is its unpredictable evolution. Since technological innovations are uncertain and involve unimaginable spheres and scopes, regulations and frameworks should be dynamically rethought and revised as innovations come into existence. The starting point, therefore, should be to establish certain unbreakable principles so that each of these three pillars of "good" can be achieved and maintained.

In general terms, the framework of ethical directives should be based on the principles of beneficence (technological constructs should benefit humankind), non-maleficence (the doctrine of first do no harm — technological constructs should not harm people), autonomy (the capacity to make independent and informed decisions on how to interact with a technological construct), and justice (technological constructs should be affordable and their benefits should be fairly distributed). This ethical framework should also be based on respect for basic human rights such as human dignity, equality, justice and equity, non-discrimination, informed consent, private and family life, and data security; as well as on other principles such as non-stigmatization, openness, and individual and social responsibility.

At the same time, technological research should be undertaken with caution and should strive to predict potential impacts technological advances could have on security and take all appropriate safety precautions, while promoting progress in support of society and the environment.

In terms of the three pillars mentioned above, some of their essential elements are:

A. **Good goods**: this pillar refers to designing and producing goods that are truly good and services that really work. The principle of the universal destination of goods and the right to their common use underlie this concept.

Technological constructs should be at the service of humanity: they should respect human dignity and autonomy, both physical and psychological. Their design, implementation and use have the potential to transform our way of life and forms of work; increase efficiency, conservation and safety levels; and improve the quality of services in the most diverse areas. Nevertheless, they should meet the following minimum requirements: i) they should not injure a human being or, through inaction, allow a human being to come to harm; ii) they must obey orders given by human

beings, except where such orders contradict the previous point; iii) they must protect their own existence, as long as this protection does not conflict with the previous two points.

For new technologies to meet these requirements, it is necessary to ensure (among many other things) that their design, production and use protect:

- humans from any harm technological innovations could cause focusing on enhancing rather than replacing human capabilities and, if failures arise that cause harm, being able to determine why;
- human freedom from technological innovations, guaranteeing human control over them and paying special attention to the problems that developing emotional links between humans and new technologies could cause to human beings;
- humanity from being manipulated by technological innovations, protecting privacy and data usage, and preventing new technologies from somehow monopolizing relations among certain groups and, therefore, disrupting social ties.

Ultimately, all research and development in these fields should be characterized by the openness, reversibility and traceability of their processes.

B. **Good work**: this pillar refers to organizing work so that workers can develop their skills and talents. The goal of creating products and services cannot be achieved at the expense of good work and the integral development of workers (that is, the subjective dimension of work).

The impact of the new industrial revolution over many jobs that are currently performed by humans but that will be done by technological constructs, in the near future, is not only predictable but a current reality. The idea of humans being replaced by the latest technological innovation is real; therefore, it should be addressed with urgency and from different angles.

On one hand, technological advances cannot be stopped, nor should we try to artificially protect jobs "by decree". To pursue this misconception would only lead to the loss of competitiveness as well as losing jobs. Moreover, technological innovations also create jobs that force people to use their more human faculties: creativity, intelligence, judgement, leadership, team effort and ethics. On the other hand, work automation could free people from monotonous and routine tasks, allowing them to devote themselves to more meaningful ones. In other cases, it could lead to benefits at an organizational level, such as boosting work safety through the use of robots for dangerous and hazardous tasks currently performed by human beings. The key, then, is not to replace but to adapt the workforce to the new types of work.

Therefore, the greatest challenge is to ensure the employability of those who work. This requires significant effort in terms of education and training to improve the redistribution of the types of skills that will be needed in the future. It also involves major reforms in the labour market to make it more flexible to allow it to reassign workers to other types of employment. These challenges do not absolve businesses from responsibility. Business has a lot to contribute to the better and greater employability of workers. This is a responsibility business cannot avoid, if it is committed to create and maintain "good work".

Business can do much more than just contributing to training, preparing and reassigning its workers so that they are able to face the challenges posed by new technologies. The challenge of

being "employable" goes beyond constant training and continuous learning of professional skills and competencies. First and foremost, business is a community of people and, as such, a school that teaches a series of human virtues that will become increasingly necessary in the world of labour: solidarity, industriousness, respect, excellence, honesty, justice, etc. Business should make room for the integral human development of those who work in it. At the same time, this development is a great contribution to workers making them better equipped to face the challenges of the new industrial revolution, so that they can take them on with better and greater employability.

On the other hand, when considering automation opportunities, business should take into account that human contact is one of the main aspects of human relations. Replacing the human factor with machines, no matter how intelligent, could dehumanize and destroy a source of social interaction that is impossible to replace completely. In many cases, this replacement can lead to devastating consequences that affect its capacity for success in the long term. As such, new technologies pose a much greater challenge to business leaders. In order to achieve real, long-term benefits through the use of innovations, they must exercise their talents, skills, creativity and experience, to prevent social interactions from becoming dehumanized —both within the company and among its stakeholders.

However, new technologies also offer opportunities for innovative business models that open doors to new perspectives and labour markets. This is the case of the *gig economy*: the creation of temporary jobs to perform specific tasks or projects. In these cases the issue goes beyond the mere provision of a service. Often an employer cannot afford to hire a fulltime worker to complete a certain task and there are also people who are willing to work part-time or even prefer this type of employment, and digital applications bring them all together. This new type of work not only allows for greater participation in the workforce, but also makes it possible to better rise to challenges related to flexibility imposed by the new industrial revolution that is underway.

Lastly, it is imperative to closely analyze and supervise the medium and long-term evolution of employment, paying special attention to job creation, relocation and loss in the various relevant sectors. By doing so we can identify the fields where jobs are being created and lost as a result of a greater use of technological constructs.

C. **Good wealth**: this pillar refers to creating sustainable wealth and distributing it fairly. The principle of fair distribution calls for wealth to be allocated to create "appropriate relations" with those who participated in its creation.

Artificial intelligence, robots and other technological innovations should be created for the good of mankind and to benefit the greatest number of people, since it is important to reduce the risk of exclusion. Therefore, it is essential to establish basic ethical principles that must be respected when developing, programming, implementing, and using technological constructs, in order to guarantee that they are at the service of humanity. As such, the benefits are more widely distributed, avoiding potential obstacles to inclusive distribution.

Respecting the principle of justice refers to fairly distributing the benefits associated with technological constructs and making them affordable to all. These new technologies must benefit and support as many people as possible and, likewise, the economic prosperity emanating from them must be widely shared, to the benefit of all humanity. Meanwhile, these technological

innovations must be developed only to the service of widely shared ethical ideals and to the benefit of all humanity, more than to the benefit of one state or organization.

On the other hand, artificial intelligence, robots and other technological innovations have the potential to greatly contribute to the good of mankind. The AI for Good Global Summit took place in Geneva, Switzerland, in June 2017, with world experts convened by the UN. This meeting highlighted the importance of new technologies to bridge social gaps, reduce poverty and hunger, improve health and medical care, and prevent child malnutrition. For example, one of the most interesting initiatives presented at the summit included the use of artificial intelligence to measure and evaluate with greater precision the living conditions of the three billion people who still live in poverty, and develop public policies to address this situation. At the same time, the summit discussed ways to democratize AI solutions around the world.

Likewise, the study *Artificial intelligence and life in 2030*, published by the University of Texas, the Allen Institute for Artificial Intelligence, Microsoft, and academics from Harvard, MIT, Columbia and UC Berkeley, confirms the potential contributions of artificial intelligence to inclusive and sustainable development. The research paper highlights that these technological innovations could help the economic development of low-income communities to be more efficient and that data mining could help to better allocate public resources. For example, algorithms could connect restaurants to food banks and avoid food wasting, etc. Artificial intelligence has also transformed modern medicine. In the AI for Good Global Summit, UNICEF presented a project it is developing to diagnose malnutrition from photographs and videos of children. Finally, by analyzing a large volume of data, artificial intelligence could help improve predictions, prevent crimes, and support governments to better serve people.

In this way, artificial intelligence, robots and other technological innovations could greatly contribute to generating "good wealth".

CONCLUSION

Businesses can contribute to meeting the UN goals for sustainable development, particularly, as analyzed above, goal number 8: *to promote inclusive and sustainable economic growth, employment and decent work for all.*

Through the three pillars of service to the common good (Good work, Good goods and Good wealth), business can help with the ethical deployment of new technologies, such as artificial intelligence, robotics and other technological innovations. Thereby, ensuring that their associated technological and economic development contribute to a better world and a completely superior quality of life. This allows us to view development as true progress.

When companies are run by leaders driven by a more comprehensive sense of life and who exercise their leadership to build more humane corporate cultures, businesses are able to appropriately deploy these three pillars and work as an economic engine, generating a development aimed at serving society and protecting our world. As such, business plays an integral role in generating material wealth for a larger number of people. They serve the common good through their efforts to multiply the world's goods, including those derived from artificial intelligence, robots and other innovations, and make them accessible to all. In this way, the role of the business leader is transformed into a noble vocation.