ARTIFICIAL INTELLIGENCE, FOOD FOR ALL

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Life for Everyone

We dream that the day will come soon when all women and men, the elderly and children, healthy and sick, the weak and the strong, everyone, no one left out, will be able to banquet together at one table, enjoying food that is hearty, and comforting drink. Our dream is that the day will come, and come soon, when no one will go hungry, or have no water, or watch ideas dry up and affections wither. We commit to make the day not far off when no human life is lost, or forgotten and ground under foot, or sacrificed as a victim on the altar of violence.

If today, in a virtual way, we find ourselves together again, seven months after our meeting in the Vatican where we signed our Call for an Ethics of Artificial Intelligence, if we are still determined to find a way to work together in spite of our busy, busy schedules and heavy responsibilities, it is because the Covid-19 emergency has made us see even more clearly the crucial question in the change of an epoch we are living through—humanity's future, and the future of the planet we are living on.

For the first time in thirty years, income-based poverty is increasing, and some predict that thanks to the pandemic more that 60 million will be added to those living in extreme poverty---on less than $1.90 a day. The number of those who lack even the fundamentals of life, food and water, would go back to where they were twenty years ago.

Choosing to meet once again, this time to reflect on the contribution that artificial intelligence can make to food production, has taken us to the very heart of life itself, to the basic and decisive questions about human existence. Artificial intelligence must be at the service of human life, of every life, of the whole human family.

Life as information and information for life

Genetics has given us a new glimpse into the mystery of life. The long chains of DNA locked in the heart of every living cell are a refined, powerful, and as yet unmatched storehouse of data that is

being continuously processed, duplicated, transmitted, and repaired. I like to emphasize this analogy in order to highlight how to make use of information in the service of life and in the service of the food that nourishes life. Today's earlier presentations have offered valuable insights on which we can reflect. The two lived and practical experiences we will hear about shortly will offer us some best practices. So thank you, Director-General QU, thank you Doctor Kelly; thank you President Smith!

Still, however, we must not forget that life is more than the information contained in a strand of DNA. Even the greatest intelligence, even digital, or the most powerful machine learning system, has no power over life. Human life cannot be reduced to an algorithm, even one that is extremely elegant. Life is more than we can grasp, but also more than we could ever expect. It never lets itself be fully coded and it is always open to the beyond.

For this reason, it is increasingly clear that different fields of knowledge and different skills must find common spaces, places to share and compare, opportunities for mutual support---today's Webinar, for example. The scientific hyper-specialization that characterizes contemporary research, the cultural predominance of economics, the marginalization of any humanistic reflection, all create a serious risk that we'll lose sight of our goal and accept answers that do not respect the dignity of human life.

In the meeting between the humanities and high tech, there is a real place for ethical considerations (What is good?), and it is there that the challenge ethics gives to each of us (what can I and must I do?) takes on its full meaning.

The integration of artificial intelligence systems into the world of food, has changed and improved this sector, in both production and distribution processes. In addition, rather than simply eliminating positions, it has often created new jobs, offering employment to persons who would otherwise be left out of the work force. Optimization of available resources, generous sharing of scientific and technological knowledge, creation of management tools that improve storage capabilities and reduce waste, create easier access to markets and financial services—these are just a few examples of the benefits of artificial intelligence. Later, we'll hear about more, but the meeting between the human and the artificial intelligences has clearly been fruitful and effective. We must be grateful to those who work every day to achieve such significant results, especially in those geographical areas where food production, and markets for distribution, are most subject to meteorological, economic, political, and societal risks.

Not to be forgotten either are the more advanced research initiatives, often still embryonic, which utilize systems of artificial intelligence to undertake projects that are particularly sensitive to environmental impact, even making food production possible in circumstances until today completely prohibitive.

Good technologies for a good life

Precisely because we are aware of the immense potential that these new technologies offer and the unimaginable pervasiveness that characterizes them, their application to the food sector requires special attention and a greater sense of responsibility. At stake are the fundamentals of every human's life---everyone's. At stake is the future of the planet.

The experience of nutrition itself gives us a clear indication of how to proceed. More than any other aspect of human experience, nutrition deals directly and explicitly with people's bodies. My referring to bodies means recognizing the primacy of humanity's concrete existence in history. It is an inescapable and irrepressible physicality that, fortunately, resists attempts at virtualization, Feeding the body involves caring, but not for humanity in general or generic populations (they are simply collective names) but for every inhabitant of the planet, in his or her absolute and irrepressible and singular God-given dignity. We must be aware that widespread digitization and the standardization required to process the immense amount of data needed by artificial intelligence can expose persons to risky testing processes, even sometimes unacceptable ones that can eliminate and marginalize the weakest among us. We feed bodies so that we don't lose their stories. We take care of bodies so that we can establish a wise balance between hyper-technologizing agri-business and preserving that prudent craftsmanship whose most valuable tools are human hands.

This care for detail needs to be practiced and protected not only at the individual level but also within local cultures. The implementation of clearly Western-matrix technologies in food production and processing has a profound effect on the food cultures of the earth's various populations. We have to feed everyone, but not everyone has to eat the same thing. Protection of biodiversity (human, crops, animal) is a central task and must be part of the whole food process, from an ethical by-design stage to the presentations that lead to acceptance and marketing. Even if it means that it's harder to make a program work; even if it means reconsidering from a different cultural vantage point a project that is already underway and might require significant modification. Basically, we

have to avoid letting technology be complicit in reducing food to a simply physiological fuel. The dinner table is a cultural treasure, a part of our lives, with its own traditions and rewards that need to be kept safe and multiplied.

In fact, we must reflect and intervene, each according to his or her their own responsibilities, so that the obvious, but not inescapable, connection between new technologies and power structures is not all-powerful in its ability to control and manipulate markets and democracies at the global level. We must reflect and work together to ensure that the undeniable influence of the digital industry as a supranational influencer does not lessen freedom of choice and always remains within democracy's mainstream.

The Rome Call

In all of this, the Call for an Ethics of Artificial Intelligence signed seven months ago is still bold, still viable. The text is a genuine call for mutual understanding, for honest dialogue, for common commitment to a shared vision and specific action. I hope that over the coming months many others will want to learn more about the Call, and in their turn sign on to it.

The dream of a table set for a feast with the all the best that field and sea can offer, a table where all are welcome, is a dream that all of us must work to make come true.

Thank you very much.