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Press Conference to present the results of the 28th General Assembly of the Pontifical Academy for Life (20-22 February 2023)

At 11.30 this morning, in the Holy See Press Office, Saint Pius X Hall, Via dell'Ospedale 1, a press conference was livestreamed to present the results of the 28th General Assembly of the Pontifical Academy for Life, which took place in the Vatican from 20 to 22 February, on the theme "Converging on the person: Emerging Technologies for the Common Good".

The speakers were: Archbishop Vincenzo Paglia, president of the Pontifical Academy for Life; Msgr. Renzo Pegoraro, chancellor of the Pontifical Academy for Life; Professor Roger Strand, University of Bergen, Norway; and Professor Laura Palazzini, LUMSA University, Rome, Italy.

The following are their interventions:

Intervention of Archbishop Vincenzo Paglia

Yesterday we concluded the 28th General Assembly of the Pontifical Academy for Life by addressing the topic of emerging and converging technologies (nanotechnology, artificial intelligence, algorithms, intervention on human genome, cognitive science, neuroscience), which Pope Francis urged us to address already in his Letter Humana Communitas, which he wrote to us for the 25th anniversary of the Pontifical Academy for Life.

The Academy had already addressed the challenge posed to humanity by the new frontier of Artificial Intelligence, which has been occupying the headlines of many newspapers in recent months. In February 2020, the Rome Call for A.I. Ethics was signed in Rome, and last January, leaders of Judaism and Islam also joined. Next year we will go to Hiroshima for the signing by other world religions, while several universities in the world have joined and other institutions such as Confindustria and the world of politics itself are also asking to participate.

In this Assembly, the initial theme has expanded and is about the systemic interaction of these emerging and

converging technologies that are developing at a very fast pace and while they can give a tremendous contribution to the betterment of humanity, at the same time they can lead to a radical modification of the human being. We are talking about post-humanism, enhanced man, and so on. A few years ago, in the General Assembly where we were discussing robotics, Japanese scientist Hiroshi Ishiguro stated that he spoke of today's humanity as the last organic generation, the next one would be synthetic. We would be facing the radical transformation of what is human.

The Pontifical Academy for Life has felt the responsibility to face this new frontier that radically involves the human being aware that the ethical dimension is crucial to save the human dimension that is common to all of us. We are living through that change of epoch of which Pope Francis often speaks. For the first time in history men can destroy themselves: first with nuclear weapons, then with the ecological crisis and finally with new technologies. This is an issue that affects both creation and the human family, the entire planet.

In such a context, we have felt the urgency of a new organizational structure for the Academy that includes, but is not limited to, the presence of scientists from different branches of science, different countries, different cultures and even different faiths, in the awareness that topics such as these (the new emerging and converging technologies) need to be approached in a multifaceted way, as happened at the beginning of the second millennium when the "universitas scientiarum" were born. They arose everywhere in the world, especially in the West: all of them - each with its specific contribution - even joined together in one place to contaminate each other.

Today the Pontifical Academy for Life intends in a certain way to revive that spirit and perspective. The human dimension that is common to us in fact requires to be approached in a holistic way - Pope Francis would say that the whole is superior to the parts -, no longer in a sectoral and disjointed way thus losing the treasure of the unity of the human family (which is obviously pluralistic by definition) that lives in the only house that must be preserved in all its beauty and made inhabitable by everybody. This vision - outlined by the two latest encyclicals Laudato sì and Fratelli tutti - informs the commitment of the Pontifical Academy for Life.

Pope Francis' speech was especially important. And the debate that took place both in the General Assembly and in the Workshops was really fruitful. I will leave it to the other speakers here to present some of the themes discussed. For the Pontifical Academy for Life, of course, this is not a matter of leaving aside the themes it has traditionally dealt with, but of broadening the horizon of its commitment, precisely because it is not only birth and death that are at stake, which of course remain crucial themes (and the Academy continues to prompt reflection and organize studies and conferences along these lines), but humanity as a whole is at stake here: the broadening of bioethics as understood until now and the very semantic dimension of the word Life are called into question.

Finally, I want to point out that this Assembly celebrated the Second Edition of the “Guardian of Life” Award. In 2021, it was awarded to the American Dale Recinella, a lay chaplain on Florida's death row. This 2023 edition gave the award to Dr. Magdalen Awor, a nurse, a collaborator of the Association “Doctors with Africa-CUAMM”. She left her native Uganda to operate in South Sudan. The award was given to her "in recognition of outstanding service on behalf of nascent life in some of the most deprived areas on the African continent." Thank you to Dr. Awor present here in the Press Room and to the Association Doctors with Africa-CUAMM.

Intervention of Msgr. Renzo Pegoraro

After the 2019 Assembly dedicated to Roboethics and the 2020 Assembly dedicated to Artificial Intelligence, in 2021 the Pontifical Academy for Life had focused on the theme of Global Health, in a post-pandemic context.

With this 2023 Assembly, the Pontifical Academy for Life has returned to a properly scientific and technological topic. Converging technologies involve biotechnology and molecular life sciences, including systems biology and synthetic biology, but also nanotechnology, information and communication technology.

We have therefore adopted an interdisciplinary and transdiciplinary perspective, with input from the world's leading experts in these fields, in order to consider the positive outlook that is emerging in the fields of health, healthcare, environment, and poverty alleviation.

Thus, we have taken into account the positive contributions to human life and the planet that are coming from converging technologies.

We register some concerns, however. And we have wondered how to address the fears, risks and uncertainties that may emerge from a use of technology to the detriment of human well-being.

In this sense, the need for discernment has emerged, and the need to better define the values and moral principles that have the task of guiding discernment itself and evaluation. I am referring to the value of the person, his or her integrity, solidarity, the value of human life, justice, and the search for the common good.

So governance is needed, which is developed through adequate and up-to-date legislation, but also by providing better information and education in the use of the technologies themselves.

The Church, through the Pontifical Academy for Life, with all the expertise it has (I would like to remind you that there are 160 Academicians, in the Five Continents) accepts these challenges and has opened up a dialogue with the different scientific disciplines, precisely to reflect on how to deal with the new scenario we may face in the years to come.

Intervention of Professor Roger Strand

I would like to begin by commending and expressing my gratitude to the Academy for organizing the workshop with a title that is both timely and to the point: "Converging on the Person. Emerging Technologies for the Common Good". In my statement today, I shall reiterate some of the key messages in my lecture at this workshop.

The term “converging technologies” denotes a set of technoscientific domains and their outcomes. This set typically includes biotechnology and molecular life science, including systems and synthetic biology, then also nanotechnology, informatics and information and communication technologies or ICTs, neurotechnology and cognitive science, and sometimes robotics and mechatronics. The idea of convergence relates to technological applications that cross these domains but also to the scientific ambition of connecting and integrating the underlying scientific bodies of knowledge. Ethical issues include the risk of misuse and abuse of such technologies. Furthermore, there are questions about access, social justice and sustainability. And more fundamentally, converging technologies raise issues about the future of the human species if the understanding comes to prevail that the human body and mind is just an arbitrary collection of genes, cells and tissues where everything might be changed according to our own desires.

My main message overall is that converging technologies and the ethical issues that they raise, are linked to structural features of contemporary modern societies and should be addressed as such. Neither science nor technology emerges in a vacuum but is co-produced with the society in which it takes place. Science and technology shape and are shaped by other institutions and practices, such as politics and economics. The ethical issues of converging technologies are entangled with the political economy of technoscience, with political agendas of innovation and economic growth, and with market forces and ideologies and cultures of materialism and consumerism. They are entangled with what the Encyclical *Laudato Si’* rightly called the technocratic paradigm.

This is also why ethics in the sense of guidelines and committees struggle to cope with the challenges. That is to say, our ethics institutions do contribute to better protection of research subjects and their right to privacy,

integrity and dignity during the research process. They can prevent harms from taking place during the research process itself. However, the space for ethical deliberation is mainly limited to the duration of the research project, and not to the societal implications of the outcomes of the research. *Ethics review boards are not able to govern science and technology towards the common good.* Current practices of research ethics play regulative and not constitutive roles.

To steer our technological trajectories towards the common good, we accordingly have to go deeper. There is a need to supplement the dominant visions and imaginaries of the good technological future with more voices from the peripheries of current scientific and economic elites. There is a need to challenge the technocratic paradigm and better integrate the concerns for human identity, dignity and flourishment.

I believe that we should not ask for quick fixes; indeed, the desire for control and for a quick fix belongs to the technocratic paradigm. It is part of the problem. It may take generations for societies to acquire the wisdom to govern technoscience for the common good.

Within academia, we can improve our ways to describe what so far escapes the technocratic paradigm. Medicine and health science can become sensitized to a wider range of meaning, including the spiritual dimension. We could build a science for human flourishment.

This might be easier than some expect. A lot of knowledge is already there, also outside the scientific, economic and political centres of power. We could listen better to peripheral voices, or even better, they might become louder. And they might become stronger, for a number of reasons, including that the functioning of the sophisticated technologies that we are discussing, depend on the functioning of expensive infrastructures and heavy use of natural resources. Some problems of the rich may simply disappear by themselves, especially when our societies are so extremely unsustainable.

The world of converging technologies is reminiscent of a Brave New World, not necessarily totalitarian but totalizing in its discourse. In the long term, I believe in moral progress. The path may be long and winding, though, especially if critique and dissent fade away. Windows to different perspectives should not be closed. We should continue to ask how technology may converge on the person, and insist on conceiving the person as more than an isolated individual, a subject that only controls or is controlled, disconnected from everything that is larger than oneself, in blind suspense between Heaven and Earth. We should ask at every crossroads: Can this or that sociotechnical trajectory help us remember how our lives truly can be, and support our strength to live them?

Intervention of Professor Laura Palazzini

“Converging technologies” arise from the combination of biotechnology (technologies applied to living systems, such as mRNA), information technology (technologies that process and correlate data with AI), cognitive science (neuroscience and neurotechnology) and nanoscience (the nanoscale technologies). The innovation brought by converging technologies is not the sum of the results of the four dimensions of science, but the result of their systemic interaction. The common goal is to contribute to the betterment of man and society.

There are “breakthrough” innovations taking place, which can on the one hand open up extraordinary opportunities for treating diseases that were unimaginable just a few years ago or improving social interactions, but on the other hand can lead (and in part are already leading) to a radical modification of man, society, and humanity in an 'empowering' sense. Think, for example, of the brain-computer interface that can enable paralyzed patients to communicate or activate a command, but also just artificially enhance mental abilities in healthy individuals.

Speed, complexity, the breadth of applications (in medicine and beyond medicine), and the blurring of

traditionally distinct realms (e.g., therapy and empowerment; natural and artificial; physical and virtual) are the constitutive features of technologies that are opening a new chapter for ethical reflection as well. Some speak of "utopian dreams," others of "apocalyptic nightmares."

The theoretical debate, in its beginnings, outlined the divide between optimistic technophiles who exalt emerging technologies and pessimistic technophobes who demonize technologies. But this is not a matter of choosing between these two extremes, but of reflecting, on a case-by-case basis, on each technology and application, in order to highlight to what extent progress can be allowed and regulated from a human-centric perspective (against technocracy and technocentrism), which puts at the center human dignity and the common good of society understood in a global sense.

Ethics is called to reflect dynamically and integrally on technological design, in different contexts, with a cautious approach. The aim is to justify the limits of technological and scientific development -particularly in its radical invasive and irreversible forms. The risk is that the yearning for perfection may make one forget the natural limitation of man, who forgets himself by 'playing God'.

A reflection is crucial that puts back on the table the question of the limits of modification of man and human nature in the light of the defense of human dignity (against reductionism), physical and psychic integrity, protection of the authenticity of what is human, security and privacy, freedom against technological pervasiveness, the possibility of personal development under conditions of social and global justice with equitable distribution and fair access, and both social and environmental sustainability.

In this horizon of thought what is increasingly urgent is the formulation and implementation of new rights for humans in the era of emerging technologies, which can establish the boundaries of technological advancement.