

The Challenges of Technological Development and our Orthodox Response to them

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It is a singular honor and a particular joy for me to take part in the first session of the Second International Conference dedicated to the journal *Theologia*, on the theme: “Orthodox Theology and the ‘Ontology’ of Technology: Anthropological, Political, Economic, Social, and Cultural Consequences”.

At the outset, allow me to note that *Theologia* is the Orthodox theological journal with the longest uninterrupted history – now for more than a century (1923-2025). Founded in the aftermath of the First World War, at the initiative and with the blessing of the great visionary, the ever-memorable Archbishop of Athens and All Greece Chrysostomos (Papadopoulos), Professor at the Faculty of Theology of the University of Athens, it truly appeared –according to the editorial board of its inaugural 1923 issue– “as the dove from the Ark of the Church, boldly released and taking flight after the flood”¹.

Indeed, throughout all these years, *Theologia* has remained a dove of peace; and this international conference, with the participation of primates and representatives of the local Orthodox Churches, offers further confirmation of that vocation. It is with joy and gratitude that I underscore the fact that many theologians, philosophers, historians, and other humanities scholars from Bulgaria have published studies and articles in its pages over the years – something that attests to the journal’s ecumenical, catholic and pan-Orthodox character.

* Ἡ Α.Μ. ὁ Μητροπολίτης Σόφιας καὶ Πατριάρχης πάσης Βουλγαρίας κ. Δανιὴλ εἶναι ὁ Προκαθήμενος τῆς Αὐτοκεφάλου Ὁρθοδόξου Ἐκκλησίας τῆς Βουλγαρίας.

1. Ἡ Διεύθυνσις, «Θεολογία», *Θεολογία* 1, 1 (1923), p. 5.

The question of modern and postmodern technologies –to which this conference is devoted– is both exceptionally timely and complex. The qualitative difference between pre-modern times and the modern era lies in the gradual transformation of technology from a mere object of human use into a constituent “substance” of human life: It is present in all its dimensions, permeates everyday existence, directs and alters our modes of living, creates needs hitherto unknown, and leads to the withering or disappearance of older ones. The technologization of human existence has progressively yielded numerous conveniences. It has reduced physical and intellectual exertion, expanded leisure, and multiplied the means for attaining specific ends, thereby affecting virtually every sphere of life – work, education, the arts, architecture, medicine, and so forth. As a result, we enjoy a great many benefits. Technology has become such a broad and all-embracing category that we increasingly struggle to define with precision what, in fact, is meant by “technology”. At the same time, as the great French analyst of the technological phenomenon, Jacques Ellul, observed, in the post-war era in which we live one may place everything in question, beginning with God, but not technological progress itself². It has become a dogma that few dare to challenge. The tendency toward the totalization of technology is evident: it virtually takes possession of the entire visible space, penetrates every sphere of life, and transforms it beyond recognition. This totalizing effect engenders the sense that artefacts fashioned by human beings are becoming subjects that slip from our control and take on a life of their own. Technology seems to enter the very essence of the human person and to acquire its own “ontology” as the theme of this conference suggests. The development of robotics and the robotization of life fosters the impression of the emergence of a new world and a new human being, the post-human. In the same direction moves the extraordinarily rapid advance of what we commonly call “artificial intelligence”.

The totalizing effect of seemingly omnipotent technologies confronts us with a fundamental question – one to which we must all respond, as human beings involved in these global processes and, above all, as Orthodox Christians and members of the Church of Christ, in accordance

2. J. Ellul, *The Technological Society*, Vintage Books, Toronto 1964.

with the Lord's injunction, "*Test everything; hold fast to what is good*"³: Where do we stand? What is the role of the Church's theology in this revolutionary situation of the technologization and robotization of human existence? What are the boundaries of technology, and is there a limit beyond which humanity cannot continue to exist? What ethical safeguards and restraints must govern its use and development?

Technology undoubtedly has its limits. But when it reaches its outer boundary, will anything remain outside it? That is, will there still be nature, the human person, a world-beyond-technology? It is precisely here that the fundamental question of *existential risk* arises – spoken of by contemporary thinkers engaged with the ethical problems of the so-called "artificial intelligence"⁴. In a futurist and dystopian register, "existential risk" generally denotes the danger that robotic super-computers may become autonomous and gradually establish control over the human species – subjugating, or even annihilating, humanity by means of the very robots it has created. Under the rubric of "existential risk" fall the ideas of transhumanism; the transfer of human consciousness to artificial physical substrates; "computerized immortality"; the project of creating a machine-"god"; the development of nanotechnologies, and the like. At present these anxieties sound more like science fiction, yet...

What we, as Orthodox Christians –as believing and theologizing persons– must consider is another existential risk, which seems to me

3. *1 Thess.* 5, 21.

4. N. Bostrom, "Existential Risks: Analyzing Human Extinction Scenarios and Related Hazards," *Journal of Evolution and Technology* 9, 1 (2002). The term "artificial intelligence" is a technical designation and a highly conventional one. As leading contemporary researchers of the problem –such as the Italian scholar Fabio Scardigli– point out: "Among all physical theories and physical phenomena, there appear to be only two things that are intrinsically non-algorithmic and uncomputable: the measurement process in quantum mechanics (the collapse of the wave function) and the phenomenon of 'understanding' or 'awareness' that characterizes human consciousness" (R. Penrose, Em. Severino, F. Scardigli, Ines Testoni, G. Vitiello, G. Mauro D'Ariano, F. Faggin, *Artificial Intelligence Versus Natural Intelligence*, Springer, Milan 2022). The American mathematician Roger Penrose maintains that, strictly speaking, artificial intelligence does not exist today, because computers lack free consciousness and the capacity for purposiveness – that is, to set ends freely which are not pre-specified by a given algorithm, however complex it may be. Consequently, applying the word "intelligence" to complex computing machines is inexact and misleading.

far more immediate and serious. I mean the risk of the loss of the sacred as a result of technology's penetration into every sphere of life. This is the technologization of life in which there is no longer room or felt need for the sacred – namely, for God and for His grace. The tendency toward desacralization of the world (cf. Max Weber's "disenchantment of the world") is not new; it already has a history of several centuries. Yet what we witness today – at the apogee of consumerism, the culture of comfort, and a hedonistic ethic ("the Ethics of Taste", to use fr. Nikolaos Loudovikos' apt phrase⁵) – is more perilous than any Enlightenment "disenchantment". The sacred has virtually vanished from our daily existence. We are losing both the sensibility and the criterion by which to discern the sacred and the holy. The reverence with which humanity for millennia approached certain persons, places, and events seems to be draining away into the black hole of forgetfulness. The forgetfulness of the sacred is our contemporary tragedy. It is no accident that this coincides with a marked rise in dementing conditions observed over recent decades. The impression fostered by postmodern technologies and mass media –of the absolute absence of God, of a lack of any need for God– is even more troubling than the nihilistic pronouncement of the nineteenth-century German philosopher Friedrich Nietzsche: "God is dead. God remains dead. And we have killed him". Today the issue is not merely doubt about God's existence, nor the classical unbelief typified by the "scientific atheism" of the nineteenth and twentieth centuries. It is the loss of living communion with the living God among believing people – Christians who are members of the Church.

The constant use of computer technologies –and especially of mobile phones, on which almost all of us now depend (the author of this paper not excepted)– fragments human consciousness. It prevents sustained contemplation, turns the single current of awareness into a sequence of "podcasts", and snaps the thread of human thought, which works ever less with words –with the Word– and ever more with images. Virtual reality becomes real virtuality (Immanuel Wallerstein). In the process, mind and heart appear entirely sundered, torn irretrievably from one

5. fr. Nikolaos Loudovikos, *Ὁ τεχνοπίθηκος καὶ ἡ Ἀλήθεια. Ἐρμηνευτικὴ τῆς θρησκείας στὸν καιρὸ τῆς τεχνολογίας νοημοσύνης*, Harmos Publications, Athens 2024, pp. 217-236.

another: the mind thinks wordlessly in manifold, ever-shifting images, while the heart becomes a dark storeroom for depressive feelings.

A consequence –and at the same time a root cause– of this fracturing of consciousness, this fragmentation of human thought, is our growing inability to pray. But how is God’s real presence possible without prayer? How can the Logos (Λόγος) be present in our life if we refuse the Eucharistic Dialogue (Dia-Logos: διά-Λόγος) with Him? It is precisely the “de-Logos-ization” (ἀλογωθείς ἄνθρωπος, a human being apart from the Logos) of human nature, the loss of the Logos –if we may borrow the words of St. Athanasius the Great⁶– and of human life that most troubles the Christian when surveying the trends of contemporary scientific and technological achievement.

We must never forget that, however advanced artificial intelligence may be –however many updates it may undergo– it can never, in any way, acquire what the holy Apostle Paul calls the “*mind of Christ*”⁷: the mind we receive as a gracious gift in prayerful, ascetical, Eucharistic, and sacramental communion with Christ. St. Maximus the Confessor, elucidating Paul’s phrase “*We have the mind of Christ*”⁸, affirms that to be called to have the mind of Christ means that we must in all things think in accordance with Christ. “*To have the mind of Christ is to think according to Him (κατ’ αὐτόν) and to think everything through Him*” – that is, through Christ. We must think “*in accordance with Christ*”. He then adds that we must “*think in accordance with Him and think everything through Him*”. “*In accordance with Him*” means according to His *tropos* (τρόπος), His manner of thinking. In other words, Christ enables us to understand the whole surrounding reality; in Him we rightly perceive all that befalls both us and the world around us.

If a bolder comparison may be permitted: In grace-filled communion with Christ, the human mind attains such perfection –such “updates”– that it becomes something far greater, more powerful, deeper, wiser, and more comprehensive than even the most powerful and “perfect” artificial intelligence. Transfigured by divine grace, the human person

6. St. Athanasius, *On the Incarnation of the Word*, 13.

7. *1 Cor.* 2, 16.

8. *1 Cor.* 2, 16.

and mind receive capacities that no artificial intelligence can ever attain under any conditions.

We have tangible examples of this in our own times. St. Porphyrios (Kavsokalyvites), a God-seer of our age who, by God's grace, "saw" the very moment of the world's creation (according to the testimony of his spiritual children), perceived both past and future. St. Paisios the Athonite spoke languages he had never studied, surpassing the most sophisticated electronic translation tools. St. Nektarios of Aegina, St. John the Russian, St. Luke the Surgeon, and many others have overcome –and continue to overcome– time-space constraints and the laws of physics in order to help, strengthen, heal, and console those who suffer.

The question before us is not to flee from technology, to withdraw into a parallel world, nor to succumb to panic or be overtaken by various fears and phobias – to dread the future, to lose sleep over new identity documents, or to demonize education. What matters, in my view, is to understand that only when we ourselves strive for sanctification –when we truly live the life of the Church by participating in its mysteries, when we establish a clear hierarchy in our lives in which technologies are means and never ends– will we be able to set clear limits to technology itself. No technology, however powerful and whoever may control it, can withstand the holy life of the saints, which we too are called to emulate. In that case, our sanctification will at the same time be a sanctification of the technologies we have fashioned.

We must not allow "artificial intelligence" (AI) to create the illusion that it can replace or erase the art of prayer and asceticism of which the great holy Fathers of the Christian desert speak, and by which they attained sanctity. "*Do not be conformed to this age, but be transformed by the renewal of your mind, that by experience you may discern what is the good and acceptable and perfect will of God*"⁹, as the holy Apostle Paul exhorts us.

And finally, to conclude on an optimistic note –and to underscore once more the concrete convenience and benefit of contemporary technologies, in spite of all potential future risks and dangers– let me not fail to note that the text I have just read was translated from Bulgarian into English with the help of artificial intelligence.

9. Rom. 12, 2.

ΠΕΡΙΛΗΨΗ

Οί προκλήσεις τῆς τεχνολογικῆς ἀνάπτυξης
καὶ ἡ Ὁρθόδοξη ἀπάντησή μας σὲ αὐτὲς

A.M. Μητροπολίτου Σόφιας
& Πατριάρχου πάσης Βουλγαρίας κ. Δανιήλ

Ἡ εἰσήγηση ἐστιάζει στὸ ὅτι στὴ νεωτερικότητα ἡ τεχνολογία ἔπαυσε νὰ εἶναι ἀπλὸ ἐργαλεῖο καὶ ἔγινε συστατικὸ στοιχεῖο τῆς ἀνθρωπίνης ζωῆς, διαμορφώνοντας ἀνάγκες, συνήθειες καὶ τρόπους σκέψεως. Ὅπως παρατηρεῖ ὁ Jacques Ellul, ἡ τεχνολογικὴ πρόοδος ἔχει καταστρεῖ σχεδὸν ἀδιαμφισβήτητο δόγμα. Ἡ ὀλοκληρωτικὴ διείσδυση τῆς τεχνολογίας δημιουργεῖ τὴν αἴσθηση ὅτι τὰ δημιουργήματα τοῦ ἀνθρώπου ἀποκτοῦν αὐτονομία, ἰδίως μὲ τὴ ραγδαία ἀνάπτυξη τῆς τεχνητῆς νοημοσύνης.

Παράλληλα, ἐπισημαίνεται ὁ ὑπαρξιακὸς κίνδυνος, ὅπως ἀναλύεται ἀπὸ τὸν Nick Bostrom, ἀλλὰ κυρίως ὁ πνευματικὸς κίνδυνος: ἡ ἀπώλεια τοῦ ἱεροῦ καὶ ἡ «ἀπομάγευση» τοῦ κόσμου, κατὰ τὸν Max Weber. Ἡ συνεχῆς χρῆση ψηφιακῶν μέσων κατακερματίζει τὴ συνείδηση καὶ δυσχεραίνει τὴν προσευχή, ὀδηγώντας σὲ «ἀπο-Λογοποίηση» τοῦ ἀνθρώπου, κατὰ τὸν Μ. Αθανάσιο.

Ἡ ἀπάντηση τῆς Ὁρθοδοξίας δὲν εἶναι ἡ φυγὴ ἀπὸ τὴν τεχνολογία, ἀλλὰ ἡ ἱεράρχησή της ὡς μέσου καὶ ὄχι σκοποῦ. Ἡ κοινωνία μὲ τὸν Χριστὸ χαρίζει τὸν «νοῦν Χριστοῦ», ὅπως ἐρμηνεύει ὁ Μάξιμος ὁ Ὁμολογητής, ὑπερβαίνοντας κάθε τεχνητὴ νοημοσύνη. Ἡ ἀγιοσύνη δύναται νὰ μεταμορφώσει καὶ τὴν τεχνολογία, ὥστε νὰ ὑπηρετεῖ τὸν ἄνθρωπο καὶ ὄχι νὰ τὸν ὑποκαθιστᾷ.