Editorial

Editorial – At the dawn of a new technological renaissance

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Introduction

About forty years ago, the arrival of the personal computer marked the beginning of a profound transformation. It was soon followed by the mobile phone, the internet and its ever-expanding universe of applications, and flat-screen digital media. These innovations did far more than improve efficiency or convenience — they reshaped the way we think, work, communicate, and relate to one another. They redefined business, education, entertainment, and even human relationships. A new digital civilization emerged before our eyes, gradually dissolving geographical boundaries and creating a truly interconnected world.

Today, we once again stand at the threshold of a transformation that may prove even more consequential — not incremental, but systemic in scale.

Electric vehicles are redefining mobility and sustainability. Autonomous driving technologies promise to reshape transportation systems and urban infrastructure. Personal humanoid robots equipped with artificial intelligence are transitioning from research laboratories into homes, hospitals, factories, and service industries. Drones are revolutionizing logistics, agriculture, environmental monitoring, and emergency response. Three-dimensional printing is decentralizing manufacturing, enabling localized, customized production at unprecedented speed and scale, while pilotless flying vehicles may further redefine personal and urban mobility.

At the same time, humanity is preparing to return to the Moon — not for symbolic visits, but to establish a permanent presence. A lunar base will not only advance scientific discovery but may serve as a strategic platform for deep-space exploration, resource utilization, and the emergence of a new space economy. Mars will follow, representing not just a destination, but the beginning of a multi-planetary trajectory for human civilization.

Yet perhaps one of the most profound transformations will occur in the domain of defense and global security.

The rapid evolution of robotics, autonomous systems, artificial intelligence, and space-based technologies is redefining military structures that have existed for centuries. The traditional image of soldiers on battlefields, fleets at sea, and manned aircraft in the sky may gradually give way to robotic and remotely operated systems. Automation and AI-driven platforms are increasingly capable of performing surveillance, logistics, cyber operations, and even combat roles without direct human presence.

In parallel, the militarization of space — once the domain of science fiction — is becoming a serious strategic consideration. Space-based systems, capable of rapid global reach and persistent observation, may fundamentally alter deterrence dynamics. In a world where advanced technologies could potentially reach any moving target or critical infrastructure within minutes, the very concept of geography as protection begins to fade, replaced by a new paradigm of constant exposure and rapid response.

Such developments suggest that future defense architectures may rely less on traditional armies, navies, and air forces in their current form, and more on integrated, intelligent networks operating seamlessly across land, sea, air, cyberspace, and orbit. The implications are enormous: unprecedented operational speed, expanded strategic reach, and the reduction of direct human exposure to combat could redefine how conflicts are fought — or, ideally, how they are prevented through deterrence and precision.

But this transformation raises profound ethical, legal, and geopolitical questions. If machines assume greater responsibility in matters of life and death, where does accountability reside? How do we ensure transparency, control, and moral judgment in automated systems? If space becomes a domain of strategic competition, how do we prevent escalation and preserve it as a shared environment? Technology can enhance deterrence and stability — yet without robust global governance, cooperation, and trust, it can also intensify rivalry and fragmentation.

Every technological revolution brings opportunity and risk in equal measure. The difference lies not in the tools themselves, but in how humanity chooses to develop, regulate, and deploy them.

We are not merely observing this transition; we are living inside it. Through our journal, we strive to document this historic passage — reporting on breakthroughs, analyzing consequences, and giving voice to the scientists, engineers, entrepreneurs, and policymakers shaping the architecture of tomorrow. Their decisions, often made today, will echo across generations.

We are living in a period of continuous acceleration — a convergence of artificial intelligence, robotics, renewable energy, advanced materials, biotechnology, and space infrastructure. The speed of change is extraordinary. What once unfolded over decades now happens within years, sometimes even months, compressing the timeline of innovation and forcing societies to adapt at an unprecedented pace.

History may one day describe this era as the beginning of a new technological renaissance — a time when humanity expanded its

reach beyond Earth while simultaneously redefining life on it. A time of extraordinary creativity, but also one that demanded wisdom, responsibility, and foresight.

The future is no longer distant. It is being engineered, coded, printed, automated, and launched today.

The responsibility to guide it wisely belongs to all of us.

And we are here to witness it, to understand it, and to tell its story.

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