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THE ECOCRATIC TURN KEEPING OR LOSING THE CONTROL OF M-E-O

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Abstract

Treating components in the current environmental catastrophe, we must incorporate AI analysis and big data-based decision systems into diagnosis and treatment, as well as the new normality molding "environmentally friendly" human behavior. The Transhumanist ideology is an emerging perspective of the post-postmodern epoch of the Anthropocene. However, based on cultural anthropological considerations, transhumanism might be seen as an essential feature of human ontology. The term „Transhumanism" must be corrected based on the human ecological Man-Environment-Organism (M-E-O) co-ontological model, which demonstrates that the borders of adapting human beings are continually extended by technological, memetic and social means beyond their own physical „surface". These extensions serve human control during biocultural adaptation processes in micro-, meso- and macro scales of human ecology. The paper offers an insight to revolutionary shifts of M-E-O based on handling information and energy transformations determining subsistence systems. As infocratic power implying monetocracy based on fiat money, mediacracy and juristocracy influenced by corporatocracy led tho severe imbalance of earthly ecosystems, crossing planetary boundaries, human society necessitates a move from present infocratic rule over society to an ecocratic one. We must optimize this change while preserving control on the human side.

Key words: *MEO, ARES, and EROS economies, control, infocratic and ecocratic eras, green transition, 4IR, transhumanism and posthumanism.*

1. M-E-O: Has transhumanism been with us since the beginning?

The human being is contextual, going by the labels Homo Sapiens, Homo Faber, Homo Economicus, and Zoon Politicon. This contextuality is central to the co-

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ontological limitations of human ecology, where humans hybridize with the technosphere, memosphere, and sociosphere, thereby promoting a sense of control over Nature. This 'Promethean' approach includes an expanding sense of human superiority and exceptionality fueled by the rise of rationality, techno-optimism, and control. The deist detachment of the Creator from his Creation, along with the Watchmaker's physical theology, resulted in a new mental representation of Totaliter Aliter, the Distant Lord, and with a modern sense of restoring control over human life based on rational human thought and action, and scientific skepticism. This was fueled by the growing importance of hybridization with developing industrial machinery, monetary technologies (usury), and democratization of written and printed knowledge (Gutenberg galaxy) in the context of the Latourian Actor-Network Theory, where printing technology reshaped cognitive style, religious rituals, and social structure, according to Marshall McLuhan. The same political transformation occurred, from sacred legitimation of royal power and feudal hierarchy (sacred social order) to the dynamic juristocratic power of social contracts of the ever-changing and transforming social forces. As the demand for human control over the natural environment combines human agency with technological, memetic, and social control tools, transhumanism expands the boundaries of human beings beyond their bodily borders towards outer techno-, memo-, and social frontiers from the start. The contextual aspects of many anthropologies reflect this co-ontological viewpoint.

Cyborg anthropology focuses on the hybridization of technology and humans. The symbolic, interpretative anthropology likewise has a hybridized perspective of human beings as a person is linked up in a succession of symbolic or mythological representations, where "man is an animal suspended in webs of significance he has spun" that help to generate and retain meaning. Radcliffe-Brown's structural functionalism and Durkheim's social theory emphasized the primacy of social systems over individual needs. Edmund Leach was bridging the gap between memetic and social constructivist techniques. Several anthropological traditions, such as neoevolutionary anthropology by Leslie White and Julian Steward, cultural materialism by Marvin Harris, and ecological anthropology by Andrew Vayda and Roy Rappoport, have expanded the hybrid of human beings and their social, natural, memetic, and technological surroundings.

White's neoevolutionary approach is based on an sociocultural adaptation model with control by energy transformation in the focus. He uses a three-dimensional cultural model similar to the technosphere, memetic info spherical, and sociospatial M-E-O model, where the culture implies Technological, Sociological, and Ideological components during adaptation to Natural challenges and stressors. In this framework, technology attempts to tackle difficulties related to survival, entailing gathering enough energy and repurposing it for human purposes. This way, societies that capture and use energy more effectively have a competitive advantage over other societies, and the more effective energy transformers have gone further in terms of evolution. In this system, E symbolizes the quantity of energy harvested per capita per year, T is the efficiency of the equipment employed

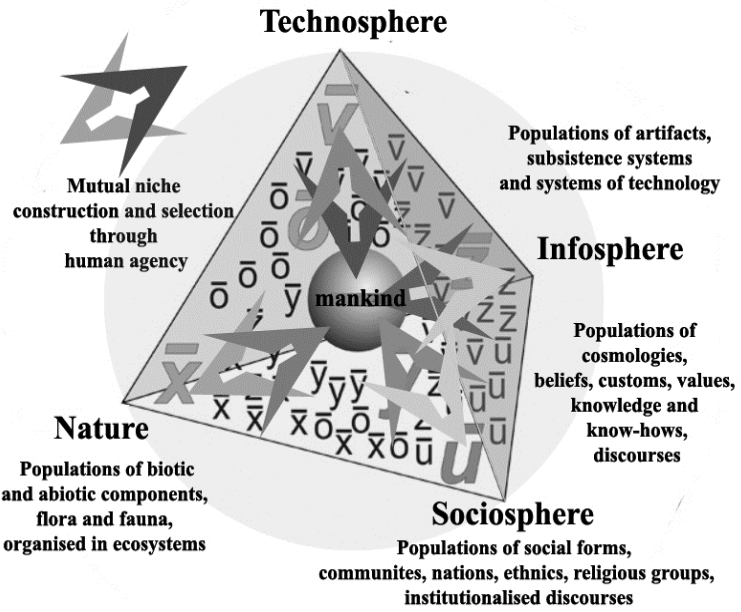
to extract the energy, and C is the level of cultural progress. Presenting this frame of measurement, White claimed that having effective control over energy is the primary cause of cultural evolution. This logic of socio-techno-info effectivity of a culture can be expressed by the formula: E x T = C. This formula points to the importance of control. Looking back at the history of M-E-O, we can see a demographic, techno-memetic acceleration reshaping cosmologies and social systems as permanent modifications occur; in this way, transhumanist transformations have dynamized the history of M-E-O since the invention of fire and the hand axe.

Julian Steward added the behavioral dimension to this technology-based framework, accepting the primary role of technology and economics but emphasizing the co-determining role of political systems, philosophies, and religion. He pointed to the critical relationship between subsistence techniques and natural resources, the behavior patterns involved in a specific subsistence strategy, and explored how these behavior patterns influence other elements of society. The approach of Steward and White is close to the ecodynamic model of Kenneth Boulding and the Latourian Actor-Network theory creating a basdisand is summed in our M-E-O model.

The Latourian 'amodern' turn makes a further step toward the criticism of Homo Economicus, as he denies the western concept of domination of the Nature as a challenging „Enemy", something to be dominated. This way, permanently changing ecodynamic relationships are reshaping changing power and control positions in each sphere, Nature, Technosphere, the memetic Infosphere, and the Social systems at the macro-, mezo- and microsocial levels.

The changing eco-relationships include domination and predating, parasitism and saprophytic features, and symbiotic mutualism.

Technocracy	**Infocracy**
From 1789 AD to 1971 AD,	From 1971 AD until 2020 AD.
I-II-III industrial revolutions	4IR
Dominance of Technosphere (fossile-based),	Dominance of Infosphere
Strong demographic growth	(monetocracy, mediacracy,
Social reference /class, race, consumer/	juristocracy)
secularism, rationalism	Unequal demographic growth.
Fossile allopoetic system,	Technological-economic reference, with networked infocratic power fuelled by fiat money, alchemic economy,



Naturocracy	Sociocracy
From 400 000 y.- 12 000 y. BC	5000 y. BC to 1789 y. AD.
Revolution of paleolithic	Neolititic agricultural revolutions
use of tools and fire	(grain, maize, rice), domestication
Domination by Nature,	local feudal sociocratic domination,
No demographic growth,	modest demographic increase.
High spiritual and religious reference.	Mechanical (hydroelevation) technology behind
Solar ecological system	Solar autopoiethic system

Figure 1. Four-dimensional, ecodinamically interacting model of human extensions. (M-E-O)

1.1 Questions of eco-dynamism and the control

Human control over M-E-O can be enforced through access to natural resources, energy pools, tools, a population of instruments, or complex industrial systems of machines; by memetic resources, education, language and symbols, cultural systems of cosmology, traditions, know-how, and social superstructures; by family, circle of relatives and friends, civil engagement, class, and national solidarity.

The opposite is also necessary to note: deprivation of natural resources, be it agricultural in Nature or socioeconomical; drought, salinization of soil, severe climatic changes, destruction of technological conditions in warfare or flood, earthquake or tsunami, loss of cultural knowledge as a result of acculturation, colonialization or social exclusion from the community (voodoo death) solely or together lead to loss of control, personal and community tragedies, and, in some

cases, loss of identity, sovereignty, and autonomy. These events might all be viewed as perturbations of technological, memetic, social, and natural extensions of the extended human border, a transhuman extension of power and control.

If gaining control by extending human borders is transhuman, then losing and transposing control through technospherial hybridization into the technospherical and memetic parts of these hybrids, arranged by genomic intervention, big data-dependent AI decision-making or AI-dependent military robots must be classified as posthuman phenomena. Political dynamics, the equilibrium of democratic power structures, the interplay of leadership and followership, the dissemination of information, and the exercise of agency could potentially mitigate power imbalances, feelings of subjugation, and the erosion of autonomy.

2. ARES versus EROS: control, domination, and accumulation as issues of power

The technological, memetic, social, and natural extensions of human boundaries represent a transhuman expansion of authority and influence that is unequal and hierarchized in society. ARES symbolizes concentrated power, fight, war, predation, and dominance and offers an acronym for **A**ccumulation and concentration of profit and power, **R**isk, **E**nvironmental degradation, **and S**upremativ dominance.

EROS symbolizes symbiosis and mutualism, love, philia, agape, and include the acronym of **E**nvironmental **R**esponsibility and **O**ptimalist strategy, and Sustainability of economical activity (Lázár, 2013).

The social consequences are also antagonistic: ARES might induce Anomy, Riots, Environmental crises, Slavery and Social Suffering, while EROS might be basis of Environmental Reconstructive Organic Sustainability.

The M-E-O paradigm of ARES versus EROS is represented by the following tetrahedrons.

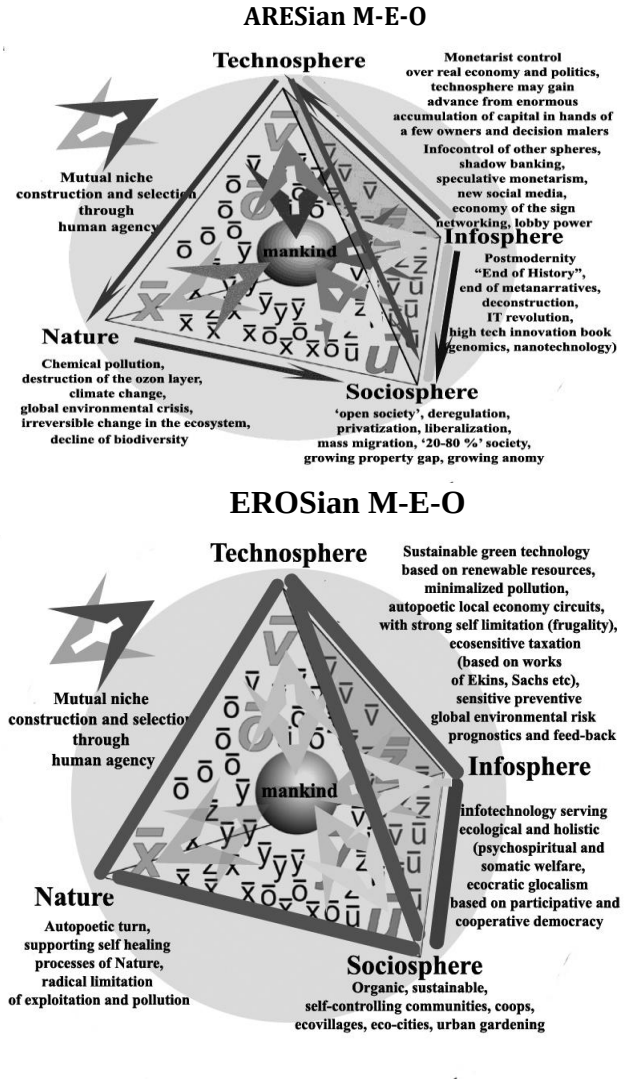


Figure 2. ARESian and EROSian alternatives of contemporary M-E-O

EROS paradigm expresses the mutualist organic, bionomic, or Kropotkinian evolutionist features of internal human ecological potential of M-E-O, which is based on laws of life, with the primary objective of serving life, especially human communities, and the Economic theology, embracing the economic teaching of world religions, alternative schools of economics and sustainable development science.

ARES paradigm follows a Darwinian evolutionary algorithm of survival of the fittest and the idea of the struggle of life through blind environmental selection.

Techno&infospherial dominance means the hegemonic dominance of Economics, including the accumulation and concentration of wealth, endless growth of GDP, globalization, extending competition, money as a means of speculation (casino capitalism), and — from an evolutionary point of view —creating extreme local negentropy on the top and in the center and serious negentropy on the periphery.

Info-technospherial dominance as a passage to ecocracy.

During the past 25 years, the technological advances and digital innovations with profound impact on ecosystem relationships reshaped our world. The accelerating pace of adoption is evident if we compare the adoption of two info-spherical innovations, Instagram and Chat GPT. After its launch, Instagram took two and a half months to reach one million subscribers in 2010, while Open AI's ChatGPT reached a million subscribers in just five days. Profound changes are observable in monetary mechanisms, and the broader digital asset industry persists with Bitcoin dominance despite blockchain scandals. 5G networks, the internet of Things, robotics, AI-based process, smart homes, smart cities, and emerging surveillance capitalism signify a rapid techno-info spherical paradigm shift. The vision of surveillance capitalism and social credit system, social and economic control mechanisms based on digital currency, centralized, epidemiological instruments of health control, and the visible efforts of transformation of present farming systems underline the suspicions regarding the centralized power dynamics of ecocratic transition.

On the other hand, means of solar technology-based energy autonomy, local food sovereignty, and feminist and social-economical considerations of ecological transition of economy offer different scenarios to overcome the burdens of nowadays volatile, uncertain, complex, and ambiguous „VUCA" world.

If the expansion of human borders in the frame of the M-E-O model signifies transhumanism, then the relinquishment and reconfiguration of control through technospherical hybridization into the technospherical and memetic dimensions of these hybrids, orchestrated by genomic intervention, along with AI decision-making reliant on big data, or military robots governed by AI, should be characterized as a posthuman phenomenon.

M-E-O possesses transhuman and posthuman abilities.

If the branches of agricultural revolution and the previous three waves of industrial revolutions may be understood as progressive evolution of transhuman techno-, memetic, and social hybrids, one thing is constant across them: these hybrids gained more and more power over the surrounding environment, and maintained human control.

On the other hand, the consolidation of control in successive stages of M-E-O progression coincided with the accumulation and concentration of monetary power, material commodities, information, and social legitimation based on mass influence

(propaganda, existential reliance). As a result of their technological-cultural expansion, fewer and fewer individuals wielded increasing power over the majority.

As we explored above, the acronyms ARES and EROS represent two oppositional logics that have a role in the structuring of social control. Archaic small-scale societies have a high rate of cooperation, sharing goods, and forms of substantial economies reflect a socially embedded economy with socially and social-psychologically meaningful and constructive gift-based exchange systems, social economy mechanisms (Kula ring, specific forms of economic rituals creating prestige like potlach, mutual services, barter), and a high spiritual reference.

At this level, there is limited demographic increase, and solar energy-based autopoietic, non-exhausting, non-polluting agriculture dominated until the coming of the industrial revolutions. The memetic and social systems are conservative; so-called Gemeinschaft-type societies are primarily local, traditional communities with stable traditions, customs, oral cultural transfer, transgenerational faith, trust, and loyalty, and social regulation based on high religious and moral standards (after Tönnies).

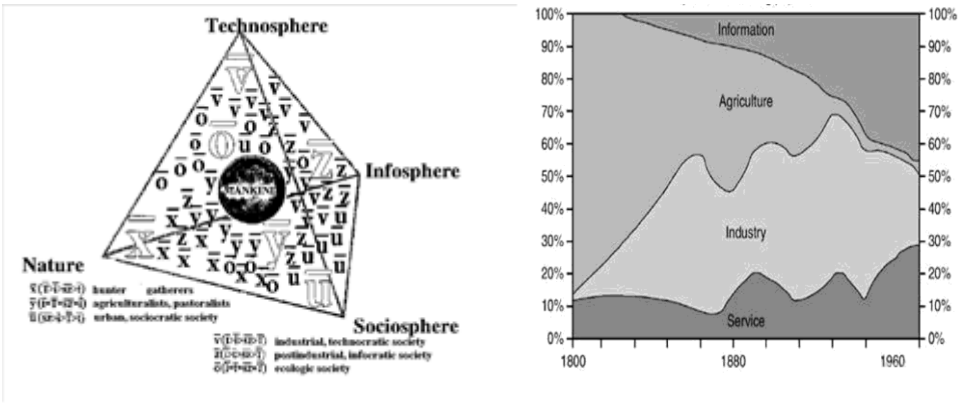
The indsutrial revolutions transformed the traditional, embedded local human ecological patterns, induces detachment and dislocation of social masses, the autopoietic solar energy- based subsistence patterns were transformed into allopoietic, fossile energy-based, exhausting-polluting socioeconomic systems, with the Tönniesian „Gesellschaft" sociocultural features. At the global scale colonialization and westernization dominated the geopolitical terrain in frames of monopolcapitalism and communist state-capitalism.

The last technocultural transition might be call an infocratic transformation. The terms: postindustrial, postmaterial, postmodern, informational or network society, VUCA world reflect a hight tech transition of appalying new electric technology of global informational flows, organisation and communication. The transformation of monetary systems, global telecommunication and global transformation of industrial production and transfer led to the monopolic accumulation of economic wealth in hands of transnational, networked corporatocracy determining global mainstream media narratives, termnoinology and heremeneutic frameworks through mediacracy, and legal constructions serving this hegemony (juristocracy).

The control shift from productive technocratic power centres toward the determining information power of networks might described by the term of infocracy. The so-called fiat money and casino capitalist transformation of monetary approaches generated a new power based supremacy which accelerated socioeconmic and Earth trend changes leading to corossin the so called Earth boundaries, serious environmental crises of Anthropocene.

V Modern, technocratic materialist, individualist

Gesellschaft based society (Tönnies)	
Industrial revolution I, II.	**Z Postmodern infocratic, syncretist,**
Printed & analog electric communication	**(Fiat money&media&networks)**
Fossile and nuclear power	Network Society (Manuel Castells)
based, exhausting&polluting allopoietic	Digital communication
E x T = C system	III.IR Infotechnology revolution
	High tech based, infotechnology dominated highly polluting@exhausting allopoietic E x T = C system (fiat money, casino capitalism, alchemic economy)



X&Y&U **Premodern magico-religious sociocratic, collectivist** *'Gemeninschaft' based info-social system (oral, written& ritual communication)* Solar-energy is the basis of non-polluting, no-exhausting autopoietic E x T = C system

Figure 3. Typology of economic revolutions of M-E-O and the population changes

The demographic transformation of the twentieth century indicates a major M-E-O shift from the primarily agrarian nineteenth century to the infocratic end of the twentieth century. Technologies and their pervasive impact on our lives as individuals and civilizations at micro-, meso- and macrosocial levels, together with the impending existential threat posed by climate change in the Anthropocene, have established a new normal in the infocratic, postindustrial, consumerist society.

The situation is more serious, as the sustainable, non-polluting, non-exhausting, solar-based auto-poietic solar energy-based subsistence systems were fading away, and in westernized countries, only 5-7% of the population remained in this sector, but in a more industrialized manner, as shown above. The infocratic turn brought about 70% of the population to information and service employment at the end of the Millennium in the "advanced" societies.

The following timeline demonstrates the devastating impact of the so-called Anthropocene on the Earth's biological system, necessitating rapid modifications and a drastic ecocratic shift.

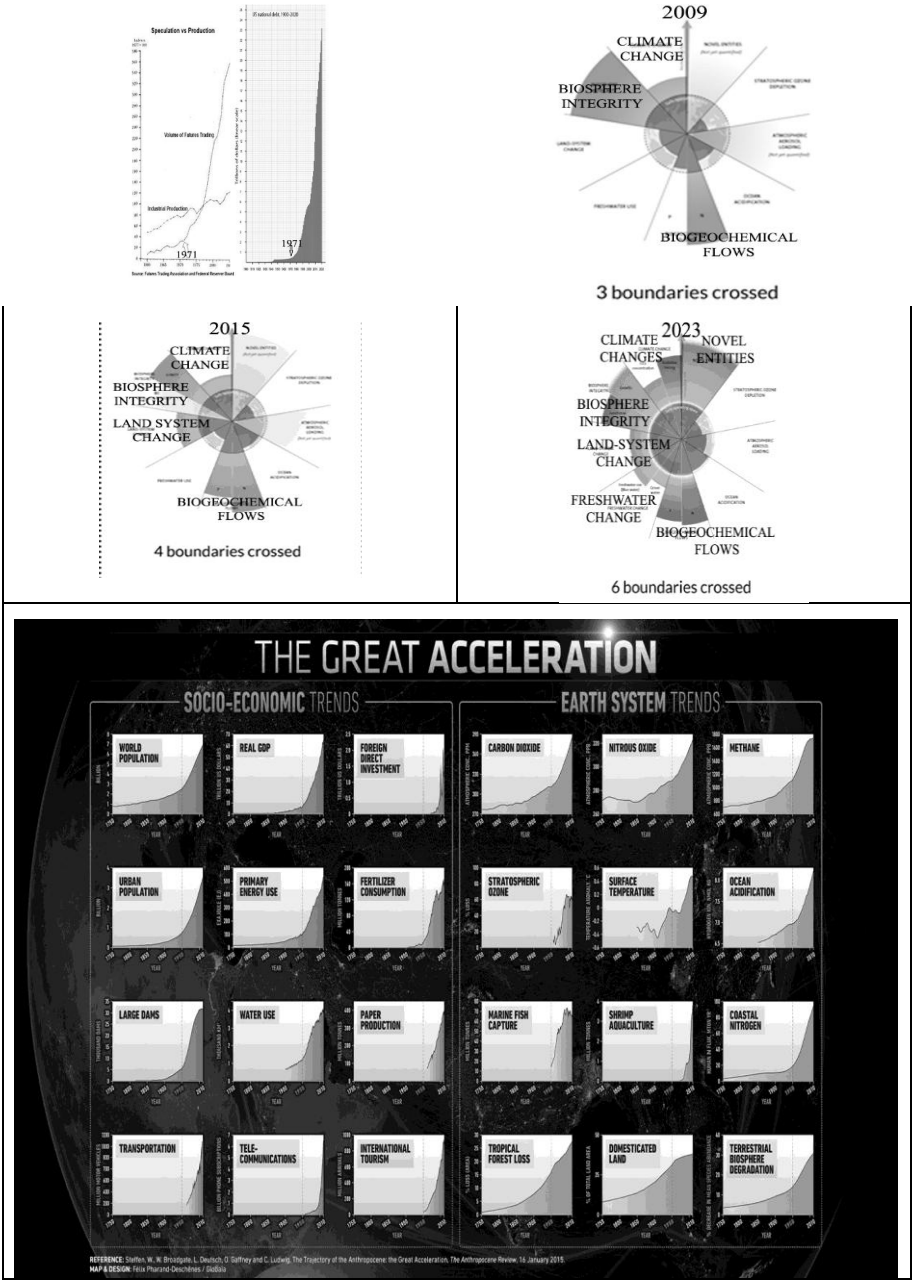


Figure 4-5. Consequences of infocratic dominance of fiat money, growing state debts, and the crossed planetary boundaries with the great acceleration of socio-economic and Earth-system trends

Industrial revolutions created allopoietic, polluting, exhausting economies powered by more intensive transformation of fossil, electronic, or nuclear energy, and they could be referred to as Gesellschaft societies by Tönnies, which are shaped by centralization, standardization, bureaucratization, legal regulation, contracts, and written media influence. As neoevolutionary anthropologists Leslie White and Julian Stewards have demonstrated, these high-energy transformative cultures take control of Nature and other autopoietic societies. The growing population, complexity, integration of local cultures, ethnicities, and languages, as well as bureaucratization, centralization, and industrialization, all help centralize cultural and economic control.

While the autopoietic, cooperative, subsidiary locality-based economic logic values are based on EROS-ian logic: Environmental Responsibility, Optimalism, and Sustainability (Lázár, 2013), the ARES acronym of Accumulation and concentration of profit and power, Risk, Environmental degradation, and Supremative dominance is a proper pattern of control maximization for M-E-O hybrids. When we examine the postindustrial period of the late twentieth century, we must recognize the significance of the dominating few's highly developed control maximization methods over the remaining 7-8 billion people. If environmental crises exhibit exponential dynamics, centralized, quick actions are more likely; in this case, an ecocratic turn may result in a dictatorial framework.

The exponential expansion, described above, is evident in both socioeconomic trends and indicators of Earth System Failure. The infocratic organization of M-E-O is based on four power pillars: accumulation and concentration of global wealth, corporatocracy (Shaw 2008), mediacracy (Kevin P. 1974), and juristocracy (Pokol 2021). According to Manuel Castells, the "spirit of informationalism" is a culture of "creative destruction" that accelerates the speed of the optoelectronic circuits that process its signals. In the era of globalization, capitalism is characterized by near-instantaneous flow, creating a new spatial dimension, "the space of flows." Castells defines the new spatial form of the megalopolis as having the contradictory quality of being "globally connected and locally disconnected." This infocratic epoch could be viewed as a transition period between M-E-O's transhuman and posthuman organizations.

The M-E-O transition from infocratic to ecocratic epoch

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If environmental crises exhibit exponential dynamics, centralized, quick actions are more likely; in this case, an ecocratic turn may result in a dictatorial framework. Although the EROS paradigm promotes environmentally friendly values and behaviors, ARESian structures have the ability to incorporate EROSian ideals. The EROS (Environmental Reconstructive Organic Sustainability) acronym conveys a lot about the EROSian offer. The EROS structure's ideologies, economic ethics, and value systems include economics as a moral science, concepts of substantial and social economics or the so-called ESG norms are incompatible with risk producing limitless profit accumulation, local growth of extreme negentropy and concentration of the wealth in the hands of a few with consecutive peripheral socioeconomic entropy.

When we compare the bionomical logic of EROS structures to the economic logic of ARESian supremacy, we discover more inconsistencies. Bionomia is an economic theory based on life's principles, with the primary goal of supporting life and human communities. Economic theology includes the economic teachings of global religions, alternative schools of economics, and sustainable development science. Economism is about externalities, growth, GDP, globalization, extending competition, money as a means of speculation, profit-maximizing corporations, and specialization, whereas Bionomia is about internalities, peaceful balance, GDP plus ecological footprint, localization, extending cooperation, local money as a means of exchange, truly responsible enterprise, and meaningful work (Tóth, 2014).

We can create a tipological comparison based on business ethic consideration and categories, examples, too.

Table 1. Tipologies of ARESian and EROSian economies

ARES economy	**EROS economy**
Extreme accumulation and concentration of capital	Economics as moral science,
monetocracy (bank system based networks, hedge founds)	local money systems,
Techno-info Network power,	Social economics
Washington consensus: deregulation, liberalization, privatization	Schumacherian economy,
dromocracy,	Buddhist economy,
mediacracy, political economy of sign,	Economic Interaction Dominated Model Systems' (Byron)
conquest of cultural capital and recreation of habitus,	Frugality, voluntary simplicity
Destruction of natural, social and psychological environment	Coops versus corps
Transnational corporation networks,	Sustainocracy versus dromocracy
Corporatocracy	Bionomia

Juristocracy	Economic theology

The machinery of the ecocratic turn is predicted to include the technology of the Fourth Industrial Revolution (Byabazaire, 2020). The vision of surveillance capitalism and social credit systems, social and economic control mechanisms based on digital currency, centralized epidemiological instruments of health control, and visible efforts to transform current farming systems all raise concerns about the centralized power dynamics of ecocratic transition.

We can compare the above-mentioned transformations with the critical postulates of Michael Haupt regarding the emerging ecocratic transition, as follows:

- **Postulate 1**: Civilization — as it has progressed since the Agricultural Revolution — has overshot the carrying capacity of the planet. As a result of — and because of the globalized Nature of the human species — we are in late stage civilizational collapse. If our species is to survive, a systemic reset of our human systems is required.
- **Postulate 2**: Considering how fragile our human systems are, it is natural that the 2020 Coronavirus pandemic triggered a series of system resets (colloquially referred to as "the new normal" in mainstream media).
- **Postulate 3**: There is a tension between two significant factions to birth their widely differing versions of a systemic reset. One is the Fourth Industrial Revolution (4IR) — espoused by WEF, technologists and multi-national corporates — and the other is the Global Peoples Revolution (GPR) — championed by numerous activist and grassroots movements.
- **Postulate 4**: The 4IR systemic reset is further ahead and far more organized than a GPR systemic reset. If successful, a 4IR reset will replicate many of the design flaws of our current human system.

The constraints generated by bureaucratic and juristocratic application of Green Transition means also serious challenge to motor car industry, milk and beef producing farmers, fossile and nuclear power based industrial segment and wide range of employees and consumers, or great parts of national economies. Robotization and AI-based high tech automatization push tens of millions out of the labour market.

Harnessing the innovations of the Fourth Industrial Revolution. Redesigning skills and jobs for a digital era.
ROBOTICS
ARTEFICIAL INTELLIGENCE – BIG DATA – AUGMENTED REALITY – CLOUD COMPUTING – KNOWLEDGE WORK AUTOMATION - **INTERNET OF THINGS** - 3D PRINTING – **BIOTECHNOLOGY** (nanotechnology, GMO) – RENEWABLE ENERGY SYSTEMS WITH ENVIRONMENT-FRIENDLY ENERGY CAPTURE, STORAGE, AND TRANSMISSION- **SYSTEMS INTEGRATION** - AUTONOMOUS SYSTEM – **NETWORK SECURITY** – **SURVEILLANCE CAPITALISM**

Figure 6. Characteristics and components of 4IR technology sources.

The elements of the 4IR, written in bold, imply technological, "suprahuman" control, but the 4IR might also have empowering support for grassroots enterprises using AI computers that can "think" like humans, offering cheap substitution of expensive professional human agency and service. The AI can recognize complex patterns, process information, draw conclusions, and make recommendations. The seemingly environment-friendly visions might include enhanced control over our everyday life, like 15-minute cities (The OXFORD example) with limitations of free use of cars, WFH (work from home) with its long-lasting effects on business and society, delivery from the 'cloud market' (ghost kitchens, restaurant-quality food deliveries). The environment-friendly business might mean the use of an individual carbon footprint tracker, where the tracker can monitor — as J.Michael Evans proposed at the Davos meeting of WEF — where consumers "traveling, how they are traveling, what are they are eating and what are they consuming on the platform," and use of tracker chips might allow fashion brands to resell their clothes with continuous gains of profit. Soshana Zuboff explored the risks of permanent digital surveillance, and the so-called social credit system enabled by high-tech digital systems is not a future vision but the present practice in China.

On the other hand, the faster computers with greater capacity (quantum computers, new generation of chips) enable Web3 to serve a decentralized world, putting ownership into the hands of the community. Web3 comprises blockchain technology, cryptocurrencies, and token-based economics. The solar technology-based energy autonomy, local food sovereignty, and feminist and social-economic concerns of ecological transition economy provide several alternatives for overcoming the constraints of today's turbulent, uncertain, complicated, and ambiguous „VUCA" environment.

Conclusions

Given these challenges, we must reconsider the meanings of transhumanist and posthumanist terminology (Farisco2013, Merzlyakov 2021). We can use the terms trans- and post- in a diachronic disciplinal sense because these ideas emerged after the normative universalist humanism, a concept of the universal, decontextualized, and desacralized human being of developing industrialized modernity of the "Gesellschaft" epoch .On the other hand we understand human agency, and the adaptive techno-, memeticv and social extensions of human being as an essentially transhuman feature. In this case the locus of human control makes the difference between transhumanist and posthumanist conditions, where the transhumanist extensions keep the control on the human side, while posthumanism means delegating the control to AI-based high tech decisions systems and the production to robotized automatized non-human technology offered by the 4IR.

The Latourian statement "we have never been modern" implies in our M-E-O model that we were all transhuman from the start, by associating the term with expanded human borders and technological, memetical and social extensions and putting human control at the center of the M-E-O notion. We are endangered to become posthuman once when we lose human control over our M-E-O extensions. The most significant challenge is how we can maintain human control in the emerging M-E-O machinery of posthuman technology, which includes AI, big data-based decision systems, robotics, and genomics along the different routes of ecocratic corporatocracy and/or cooperative ecocracy.

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