

Forecasting the Future: Long-term Neuroprognostication and Psychoanalytic Implementation of Prefrontal Specialization in Western and Eastern Civilizations by 2035

Bohdan Tkach

G.S. Kostyk Institute of Psychology, NAPS of Ukraine; Deva Clinique, Kyiv,
Ukraine

Tetiana Smith

Kyiv school of public administration named after Serhiy Nyzhnyy, School
of ministers, Kyiv, Ukraine

Vitalii Lunov

Bogomolets National Medical University; G.S. Kostyk Institute of
Psychology, NAPS of Ukraine; Deva Clinique; House of Educations &
Research Limited, London, UK

The article delves into the intersection of neuropsychology, psychoanalysis, and sociocultural shifts to project future trends across key societal domains. The paper explores the implications of rapid technological progress, sociocultural transformations, and globalization on Western and Eastern civilization's metacognitive structures, behaviours, and identity formation.

Key Themes and Insights:

Frontal Cortex as the Organ of Civilization. Building upon Alexander Luria's assertion, the article positions the frontal cortex as a pivotal hub for adaptive cognitive functions. The dynamic and evolving sociocultural environment gives rise to what the authors term as "civilizational neuropsychological disorders."

Sexuality and Technology. Sexual narratives are analyzed through Lacanian psychoanalysis, where shifts in gender roles and technological progress drive fluidity in

identity. Technological advancements such as virtual reality and teledildonics (remote-controlled sex toys) reflect a growing digital intimacy. The authors posit that this may foster inclusivity and holistic approaches to sexual health while challenging traditional notions of presence.

Social Relations and Deviations. Strategic rivalry between the U.S. and China is poised to reshape global norms, leading to cultural mimicry and new value standards. The rise of supranational structures will influence definitions of deviance and acceptable social conduct, establishing a new order that is complex and multipolar.

Aggression and Global Security. Social cohesion will be increasingly challenged by shifts in international order, growing economic disparities, and geopolitical tensions. The authors foresee the manipulation of identity narratives to maintain societal stability amid divergent global power blocs.

Income Generation and Living Conditions. The acceleration of technological progress will alter labour structures, requiring a focus on metacognitive adaptation. The paper emphasizes that income generation will evolve toward skills that leverage creativity and emotional intelligence, while new models of communal living may arise.

The article offers a comprehensive critique of how civilization's current trajectory requires rethinking diagnostic paradigms and interventions for neuropsychological disorders. These insights are supported by methodological rigor, blending global analytical research with concepts from post-nonclassical neuropsychology and neuropsychanalysis.

Keywords: Neuropsychology, Psychoanalysis, Sexuality, Social Relations, Technological Progress, Lacanian Analysis, Prefrontal Specialization, Civilizational Disorders, Strategic Rivalry, Cultural Mimicry.

INTRODUCTION

The founder of Soviet neuropsychology, Academician Alexander Luria, referred to the frontal cortex of the brain as the "organ of civilization." The phylogenetically ancient parts of the brain are inherently conservative, philosophically positivistic (a term rooted in the philosophical direction founded by Auguste Comte). In contrast, the phylogenetically newer regions are adaptive and, using philosophical terminology again, phenomenological (a school of thought initiated by Edmund Husserl). Thanks to these new areas of the cerebral cortex, we

adapt to emerging sociocultural conditions and create new narratives that shape the discourse of civilization.

Rapid changes in the civilization's existence, such as the replacement of traditional landline telephones by smartphones, give rise to what are known as "civilizational neuropsychological disorders." These occur when modern individuals with highly developed brains can't operate devices used by their parents and grandparents. The dynamism of the times and the acceleration of technological progress, alongside societal transformations, will lead to "civilizational neuropsychological disorders" affecting cognitive and behavioral domains within a single generation. Thus, it's crucial to anticipate trends in key aspects of adult life: sexual, economic, and hierarchical.

Forecasting the near future through the predictions of global think tanks will enable us neuropsychologists to anticipate the trajectory of Western civilization over the next 10 years or more. This model will provide a strong argument for changing the current paradigm in diagnosing and correcting disruptions in the metacognitive sphere of the psyche, which governs subject-centered knowledge.

For clarity, we've grouped our analysis into several clusters:

- Sexuality
- Social relations and deviations
- Aggression
- Income generation
- Living conditions

It's worth noting that in our methodology, we don't adhere to any particular futurism theory. Instead, we present and critically evaluate the findings of analytical research from experts in various fields using the core principles of Bogdan Tkach's post-nonclassical neuropsychology and Vitalii Luniov's neuropsychanalysis. Moreover, Western civilization doesn't exist in isolation from other civilizations; it profoundly influences and depends on them. Hence, some trends are considered on a global scale.

SEXUALITY

No other species on Earth experiences the same confusion around sexuality as humans. This complexity is understandable given that the human brain's large hemispheres originate from the limbic system's sexual olfactory center. As a result, eroticism is inherently present in higher mental activities.

There is still an ongoing debate about what system of sexual narratives should be built in contemporary societies. No optimal model exists, as evidenced by the varied outcomes of social engineers' efforts to implement different sexual narratives in various countries. This is particularly evident in the extremes: the "neurotic" model, where sex is sinful and controlled by the state, and the "anti-neurotic" model, where sex has no taboos and is seen as commonplace. Most experts agree that an intermediate approach is best since the neurotic model negatively affects health but drives technical progress, while the anti-neurotic model helps maintain health but offers little societal advancement.

The greatest challenge in creating a universal modern sexual narrative is the difference in regions (mega-regional settings), where each has varying demands for certain neuro-personological types (e.g., creative people or diligent workers).

In the realm of morality, there is a multi-vector dynamic with ultra-tendencies. In one part of civilization, liberalism and aggressive LGBT promotion are pushed, while other regions emphasize restraint in early sexual contacts and conduct virginity checks in schools. Some firmly uphold the institution of marriage and having many children, while others emphasize selfish hedonism and a "child-free" lifestyle. This is especially noticeable within individual regions, where a gradient of moral change exists across the "province-metropolis" continuum. These differences necessitate different approaches to assessing not only deviations but also clinical symptoms.

For instance, in our region, if a girl from a metropolis has simultaneous sexual relations with multiple partners, this raises no concerns. However, if she is from a rural area, it warrants a psychiatric evaluation to rule out

schizophrenia. Sexual practices also vary by location, with more behavioral settings available in larger cities and fewer in smaller towns. Surprisingly, social networks and the omnipresence of the internet have little impact on this trend. These trends will likely persist in the near future.

High-tech sex toys continue to evolve, particularly anthropomorphic masturbation dolls (surrogate women and men for sex). Initially focused on visual appeal, tactile pleasure, temperature, and simulating orgasm through movement and vocalization, today's focus is on behavioral and cognitive aspects (audio chatbot). We are now closer than ever to sex robots integrating into human society.

In this context, we should consider the views of the Lacanian psychoanalytic school, which provides a rich framework for forecasting future changes in sexual behavior and perceptions of sexuality. Jacques Lacan's views on sexuality, particularly his ideas on the phallic function and the concept of "feminine jouissance" (a form of pleasure beyond the phallic order), offer a fertile basis for predicting future trends.

As we interpret them, Lacan's ideas suggest that both men and women can embody what is traditionally considered "feminine" in their approach to desire and pleasure, challenging binary concepts of gender and sexuality. With contemporary shifts in societal attitudes toward gender and sexuality and technological advances, the following changes can be expected in sexual behavior and the sexual industry:

Greater Fluidity in Gender and Sexual Identity

Lacan's theory, which does not limit sexual positions to biological sex, aligns with modern movements toward recognizing a spectrum of gender identities and sexual orientations. As society increasingly accepts the fluidity of gender and sexuality, we can expect further erosion of traditional roles and identities. This will likely lead to a more inclusive understanding of sexual attraction beyond binary categories, enabling individuals to explore and express their sexuality in ways that align with their authentic selves.

Increased emphasis on the psychological and emotional aspects of sexuality

The concept of "feminine jouissance" as pleasure that transcends the phallic order (which is often associated with the visible, measurable, and penetrating) suggests that future sexual behavior may prioritize psychological and emotional connection as much, if not more, than physical connection. This shift could affect the sex industry, forcing it to develop products and services that fit a more holistic view of sexual health, including emotional intimacy and mutual satisfaction.

Technological progress and virtual reality

The emergence of virtual reality and teledildonics (remote sex toys that can be controlled via the Internet) reflects the Lacanian view of the "simulacrum" - a copy without an original. As these technologies become more sophisticated, they may offer new ways of experiencing sexual desire and pleasure, challenging traditional notions of physical presence and intimacy. This could lead to the emergence of a sex industry that increasingly blurs the line between physical and virtual experiences, offering more diverse and customized forms of sexual expression.

Normalization of various sexual practices

As society moves toward a more inclusive understanding of gender and sexuality, we may also see the destigmatization and normalization of various sexual practices. This would be in line with Lacanian thought, which challenges the normative framework of desire and pleasure. The sex industry can respond to this by diversifying its offerings to satisfy a wider range of desires and fantasies, moving beyond mainstream, heteronormative paradigms.

Relationship with sex industry trends

The sex industry is likely to reflect and reinforce these changes by diversifying its products and experiences to cater to a wider range of sexual identities and preferences. This can include everything from more nuanced and inclusive images in adult media to developing sex toys that cater to a wide range of bodies and desires. Additionally, as the dialogue around sexuality becomes more open and grounded in psychoanalytic concepts such as Lacan's, the industry may also see a shift toward more educational and wellness offerings that emphasize sexual health and pleasure in a more holistic sense.

Overall, the future of sexuality and sexual behavior involves a move toward greater complexity, inclusiveness, and a deeper understanding of the psychological underpinnings of desire and pleasure. This evolution, reflected in the sex industry, can contribute to a more open, diverse and fulfilling landscape of sexual expression and sexual experience.

Let us turn to the concept of the "Big Other," which summarizes and symbolically presents the social norms, laws, and language systems that regulate our desires and the ways in which we relate to one another. The "Big Other" serves as a kind of symbolic authority, an external point of reference that individuals assimilate, forming their sense of identity, their desires, and understanding of their place in the world.

In the context of Lacanian psychoanalysis, changes in the perception of the "Big Other" among Europeans, Americans, and Asians may be influenced by several global trends, including the development of digital technologies, changes in political ideologies, and the effects of the COVID-19 pandemic. Here are some speculative considerations about how these influences might shape perceptions of the "Big Other" in these regions:

For Europeans

European perceptions of the "Big Other" may be increasingly influenced by debates around digital privacy, data sovereignty and the role of the European Union in regulating the activities of technology giants. As digital platforms become more intertwined with everyday life, Europeans may begin to perceive the "Big Other" not only as national governments or cultural norms, but also as a complex interaction between EU regulation, technology companies and digital communities. This can lead to the Big Other being perceived as more abstract and more directly involved in personal life, challenging traditional notions of privacy and autonomy.

For Americans

In the United States, perceptions of the "Big Other" may change in the context of political polarization and the role of social media in shaping public discourse. The "Great Other" can be perceived not as a single and integral authority, but as a fragmented collection of echoes and

ideological battlefields. This fragmentation can lead to people feeling alienated or detached from a shared social reality, potentially contributing to a more individualistic or isolated sense of identity that challenges the communal aspects traditionally associated with the Big Other.

For Asians

The huge diversity of Asian countries means that changes in the perception of the "Big Other" can be very different. However, one potential commonality may be the impact of rapid technological progress and economic growth on traditional values and social structures. In countries such as China, Japan and South Korea, the "Big Other" may increasingly reflect the tension between traditional Confucian values and the pressures of modernization and global capitalism. This may lead to the emergence of a "Big Other" that embodies both respect for historical norms and acceptance of technological and social innovation, creating a dynamic tension between past and future identities.

In all regions, the impact of global challenges such as climate change, economic inequality and the effects of the COVID-19 pandemic may lead to a re-evaluation of what the "Big Other" requires in terms of ethical behavior and social responsibility. As individuals and communities overcome these challenges, the Big Other may become more closely associated with global solidarity and collective action, reflecting a broader understanding of interdependence in a rapidly changing world.

Forecasting global change at the level of discourse is impossible without framing the ideas of "lack" (*manque*), "castration," "phallus," and "simulacra," as they are key to understanding the dynamics of desire, identity, and reality. These concepts, applied to contemporary global changes, open up intriguing possibilities for the development of societies.

Lack (*manque*) and castration

Lacan's concept of "lack" is related to the idea that desire is born from a fundamental absence or something that is always lacking, which is symbolically represented by "castration." In today's context, this sense of scarcity may increasingly be reflected in the collective desire for

sustainable development and environmental preservation. As societies become more aware of the limitations of natural resources and the limits of the planet's ecosystem, the global narrative may shift toward acknowledging and accepting this scarcity, rather than constantly trying to fill it through consumption and production. This can lead to a deeper understanding of minimalism, sustainability and the intrinsic value of the natural and social environments, marking a shift from a culture of excess to a culture of conscious conservation.

Phallus

In general, the phallus symbolizes a sign of desire and power, and not just a biological organ. In the context of changing power dynamics in the world, the concept of the phallus may evolve to encompass a broader, more inclusive understanding of power and influence. This can be manifested in the destruction of traditional hierarchies and the emergence of more decentralized, joint forms of management and leadership. As societies question and rethink what constitutes power and authority, attributes not traditionally associated with the phallus, such as empathy, cooperation, and vulnerability, may become more valuable as sources of power and leadership.

Simulacrum

The concept of simulacrum, especially as it has developed in post-Lacanian thought, refers to a copy without an original, or a representation that becomes more real than reality itself. This is very relevant in the era of digital technologies and virtual realities. As the digital realm becomes an increasingly integral part of the human experience, the distinction between the "real" and the virtual continues to blur. This could lead to a society in which the creation and manipulation of virtual identities, realities and experiences will be valued as much as physical experiences. However, it can also prompt a critical reassessment of authenticity, privacy, and the nature of human connection as people navigate a complex world where the lines between reality and simulacrum are increasingly blurred.

Global implications

Recontextualizing these ideas in the face of global challenges and technological progress suggests a future in which understandings of desire, power, and reality are profoundly altered. Societies can move towards more sustainable and just systems as they face the constraints arising from "scarcity" and "castration". The concept of the phallus can evolve to accommodate a more nuanced view of power that includes traditionally marginalized voices, helping to create more inclusive and empathetic communities. Meanwhile, the pervasive influence of simulacra in digital culture may lead to a rethinking of identity, community, and authenticity in an increasingly virtual world.

Such shifts have the potential to catalyze a broader transformation in how individuals and societies make sense of their place in the world, their relationships with one another, and the search for meaning and fulfillment in an age marked by rapid change and complexity.

Considering the global contexts of the forecast, it is worth mentioning the COVID-19 pandemic, which has accelerated the virtualization of many aspects of human life, including work, education, social interaction and, especially, sexuality. Enforced physical distancing and quarantine restrictions have led to a surge in the use of digital platforms for sexual expression and exploration, from dating apps to virtual reality (VR) and augmented reality (AR). This shift to virtual sexuality has not only helped people stay connected during periods of isolation, but has also expanded opportunities for sexual exploration and expression, which is likely to have a lasting impact. Here are some possible implications and considerations:

Virtual sexuality and the future of sexual reality

Normalization of the virtual sexual experience. As people become more accustomed to virtual platforms for sexual interaction during the pandemic, the use of VR, AR and other digital technologies for sexual purposes is likely to become more common. Virtual sex, cybersex, and the use of teledildonics (interactive sex toys that can be controlled over the Internet) offer safe, customized, and novel experiences that can transcend physical limitations.

Growing similarities in pornographic preferences. Widespread access to Internet pornography and virtual sexual experiences may lead

to a convergence of pornographic tastes across civilizations. Algorithms that recommend content based on past viewing habits can create echo chambers, narrowing the variety of sexual expressions and fantasies that people explore. However, this trend may also lead to a counter-movement that will seek more diverse and authentic representations of sexuality.

Social relations and deviations. Virtual sexuality can significantly alter social relations, affecting how issues of intimacy, consent, and connection are navigated. On the one hand, virtual platforms can provide a space for inclusive and safe exploration of one's own sexuality, especially for marginalized communities. On the other hand, detachment from physical presence can lead to problems related to the commercialization of intimacy, the violation of consent in a virtual environment, and the potential for increased sexual deviance, as the line between acceptable and harmful behavior becomes blurred in a virtual context.

Influence on sexual education and health. The virtualization of sexuality requires changes in sexuality education to accommodate the realities of digital intimacy and consent. Educators and health professionals may need to expand their focus to include ethical, emotional, and safety aspects of virtual sex alongside traditional topics.

The rise of virtual sexuality poses significant regulatory and governance challenges, including the need to protect users from exploitation and abuse while respecting privacy and freedom of expression. This may lead to the emergence of new legal frameworks and technological solutions designed to protect people in the virtual sexual space.

The virtualization of sexuality, accelerated by the COVID-19 pandemic, is likely to continue to evolve under the influence of technological innovation, public attitudes, and the ongoing debate over ethical considerations. The future sexual reality is likely to be characterized by a combination of physical and virtual experiences, offering both opportunities for enriched sexual expression and challenges that will need to be addressed if these changes are to positively impact individual well-being and societal health.

SOCIAL RELATIONS AND DEVIATIONS

Social relations are extremely dependent on the biggest factors - the new world order and global security. What exactly is considered deviant, and what is the norm depends on the agreement in society, if we speak at the national level. At the global level, supranational structures will set the trend. This will be the starting point for new value-normative standards.

The European Commission (2022) declares that the future international order will change and will focus on the strategic rivalry between the US and China. In addition, trade agreements will move from a global context, such as the World Trade Organization, to regional and bilateral trade agreements between countries. There will also be a transition to a multipolar world, where many non-aligned countries will not want to be drawn into geopolitical rivalry and will seek to create their own power blocs. It is obvious that there will be an open struggle between the discourses and cultures of the aforementioned rivals.

In the context of the evolution of the world order, which is characterized by strategic competition between the USA and China, as well as a shift in emphasis from global to regional and bilateral trade agreements, the concept of "cultural mimicry" is gaining particular relevance. This phenomenon refers to the adaptation or adoption of aspects of one culture by another, often as a result of globalization, strategic interests, or the desire to conform to what is perceived as the dominant or more desirable culture, referred to in Lacanian terms as the "Big Other." Convergence of language, consumption and worldview

In a multipolar world, where strategic rivalries define international relations, the languages of dominant players become crucial tools of "soft power". English, Chinese, or even hybrid forms of languages may become lingua franca in different regions, reflecting not only practical communication needs but also deeper cultural shifts toward dominant geopolitical narratives.

The global spread of consumer culture, which is largely influenced by dominant economic powers, leads to the homogenization of tastes and lifestyles. This could lead to the formation of a global consumer culture

that reflects the preferences and values of the "Big Other," whether Western consumerism, the Chinese model of digital surveillance capitalism, or a combination of both. Products, brands, and technologies derived from these forces become symbols of social status and identity, further stimulating cultural mimicry.

The ideological and cultural underpinnings of societies are also subject to mimicry as nations and groups align their worldviews with those of perceived global leaders. This can manifest itself in the adoption of political ideologies, governance models, and even attitudes toward freedom, censorship, human rights, and environmental policy. The "Great Other" in this sense acts as a beacon that determines the moral and philosophical orientation of societies that are trying to navigate the complexities of the new global order.

Consequences of cultural mimicry

Cultural mimicry, while offering avenues for global integration and cooperation, is also of considerable concern. It can lead to the erosion of cultural diversity and suppression of local identities and values. The struggle between the discourses and cultures of great powers can reinforce these tendencies, as countries in the middle can adopt aspects of both to navigate the geopolitical landscape, resulting in a mixture of cultural elements that can either enrich diversity or blur specificity.

Moreover, the phenomenon of cultural mimicry in the context of superpower strategic rivalry may not be entirely voluntary or benign. It can also be a strategic adaptation to global pressures, a survival mechanism in a world where alignment with a dominant power provides economic, military, or political security. However, such adaptation risks creating societies that are outwardly homogenized but internally fragmented, as globalized elite cultures diverge from local traditions and values.

The future of cultural mimicry and its impact on social relations, norms and deviance is likely to be complex. As new value-normative standards emerge as a result of these global shifts, societies will need to negotiate their identity and autonomy within the broader framework of the Big Other. These negotiations can lead to new forms of resistance, adaptation, and hybridization as cultures seek to preserve their

uniqueness while interacting with the global community. Understanding and respecting this delicate balance will be critical to building a world that values diversity as much as it seeks common ground.

Aylward et al. (2023) believes that international organizations such as the UN Security Council are likely to remain unchanged despite unprecedented changes in the world. Also, no new permanent members will be added to the UN until 2033. During the next ten years, American and European countries will remain under the NATO alliance. It is this forecast that indicates the preservation of the range of discourses and settings of Western civilization. It will strengthen the psychological feeling of division into "ones and others."

The Russian Federation's war against Ukraine demonstrated the impotence of these state structures and sets a new narrative of "relying only on yourself", because no international treaties are a guarantee of security.

The world was dominated by a Russian myth in which everyone believed that "the army of the Russian Federation is formidable and invincible." However, the heroism of the Ukrainian people demonstrates that the already strong Russian Federation is not like that and it is quite realistic to fragment it into new buffer states. All this reduced the basic fear of superpowers. While Aylward et al. (2023) believes that there will be a proliferation of nuclear weapons in the world. By 2033, most likely, Iran will become a nuclear power, and there is also a high probability that Saudi Arabia, South Korea and Japan will join. Despite the proliferation of nuclear weapons in other countries, it is likely that they will not be used, although the possibility of their use still remains, and if it does happen, it will most likely be in a regional rather than a global conflict, such as the use of it by Russia or North Korea against its nuclear-free neighbors. All this can happen due to the lack of adequate international attention. That is, there will be a reset of "fear" as one of the tools in social engineering. A striking example is the change in social attitudes among Polish citizens when performances of destroyed military equipment of the Russian Armed Forces on the territory of Ukraine were held in their cities.

Humanity will become more and more aggressive and the processes of radicalization and fanaticism will increase. Aylward et al. (2023) believe that in the next decade, democracies will have to face strong nationalist and populist forces, mass communications and new technologies that will help bring nationalists and populists to power and pose a threat to democracies around the world. Thus, the number of democracies is likely to decrease. Digital dictatorship and digital enslavement will appear.

Living organisms have three tasks that they must perform. The first is to replicate your DNA as much as possible, that is, to leave your offspring as much as possible. The second maximum expansion in space and accumulation of resources. The third is to occupy the highest possible step in the hierarchy. It is worth noting that it does not matter in what way this will be achieved. This is what we find in the Shelbourne Report (2022) that American government officials in 2022 suggested that from 2022 to 2027, China would attack Taiwan to unite it with its mainland. Matamis (2023) adds that several senior US military officers believe that a Chinese invasion of Taiwan is likely and will occur between 2025 and 2027. He continues that the Chinese Communist Party believes that the existence of Taiwan is an existential threat to China, similar to the view that Ukraine is an existential threat to Russia. At the same time, Global Guardian (2023) writes that Taiwan's military believes that mainland China will invade in 2025. Other trigger points that could start a Chinese invasion are the re-election of Taiwan's pro-independence president in January 2024, the US presidential election in late 2024, and when the US no longer depends on Taiwan's semiconductor exports, what will happen around 2030. Global Guardian (2023) puts the probability of a full invasion at 35% and believes that the most likely scenario would be a limited conflict centered on a naval blockade of the island. Richardson (2021) estimates that Taiwan may become a US territory and apply to become the 51st state. This would solve the security problems facing Taiwan and ensure full recognition of the Taiwanese people as American citizens. Taiwan's state movement cites the US state of Hawaii as a similar example that Taiwan could emulate. This point on the planet becomes a new trigger, because before that the trigger of world wars was Europe, and especially the territory

between the Baltic and Black seas. This is quite natural, because Ukraine, having an imperial past, has organically absorbed the discourses of three civilizations and is now the "General Point of the Planet" (the G-point of the planet). It is in this place that the Western, Orthodox and Eastern civilizations meet. As a matter of fact, Western civilization is constantly expanding its borders towards Orthodoxy. Aylward et al. (2023) believes that in the next 10 years, the USA will most likely remain the leading military power in the world with a large share of technological potential, but will weaken economically and diplomatically in the world. Whereas, by 2033, Russia may disintegrate due to upheavals in the country caused by the war against Ukraine through revolution, civil war, political division, which has one of the largest stockpiles of nuclear weapons in the world, or become an unsustainable state. Ukraine, having a coherent integration of the discourses of three civilizations, is primed for success and a regional supervisor, provided that it gets rid of Soviet corruption narratives. The influence of Great Britain in the world will be stronger and stronger.

In the context of the described global shifts and conflicts, the reconfiguration of norms and the reinterpretation of deviance through a psychoanalytic lens, in particular, based on Lacan's theory, can provide a deep understanding of the collective psyche of societies. The process of establishing new norms and considering certain existing norms as deviant reflects the symbolic struggle and negotiation of desires in the socio-political sphere.

Symbolic order and real

Psychoanalytic theory assumes three registers of psychic functioning: symbolic, imaginary, and real. The symbolic order in which laws and language are found is crucial for the organization of society and the mediation of relationships. In conditions of global tension and reshaping of alliances, the symbolic order itself is undergoing transformation. This change in order will require a revision of what is considered normative or deviant. As societies confront the real—that which resists symbolization, including threats of war, state collapse, and nuclear proliferation—the symbolic order seeks to integrate these disturbances, thereby altering norms and potentially pathologizing previously accepted behavior.

The Big Other and desire

The Big Other, who represents societal norms and laws, plays a crucial role in structuring desire. In a world marked by increasing polarization, nationalism, and the blurring of lines between democracy and authoritarianism, the Big Other is becoming fragmented. This fragmentation leads to diverse, sometimes contradictory, conceptions of desire within and between societies. What one society or group within a society considers a legitimate expression of nationalistic or survivalist aspirations, another may regard as a dangerous deviation. The resurgence of nationalism and populism can be seen as a collective response to a perceived threat to social order, a way of regaining control and redefining the boundaries between "own" and "foreign", "us" and "them".

The concept of the mirror stage, when the subject mistakenly recognizes itself as a whole and separate entity, can be extended to national identities. In times of conflict and change, nations, like individuals, seek an image of integrity and autonomy. This search often leads to the idealization of certain cultural or historical narratives and the denigration or outright denial of others. The process of defining a national identity in opposition to another can strengthen group cohesion, but also leads to the exclusion of those who do not fit the constructed image, deepening the gap between "norm" and "deviance".

Jouissance and the desire for destruction

The concept of jouissance, a form of pleasure linked to the desire for excess and destruction, offers a lens for understanding radicalization and fanaticism, which are predicted to increase. The desire for maximum replication of one's own DNA, spatial expansion and hierarchical elevation can be understood as a manifestation of jouissance, when the pursuit of these goals goes beyond the pleasure principle into the realm of excess and self-destruction. Societies that practice aggressive nationalism or populism may pursue some form of jouissance in asserting dominance or purity, even at the cost of their own stability or ethical integrity.

Psychoanalytic understanding of global trends

From a psychoanalytic perspective, the emerging global order challenges societies, forcing them to confront their desires, anxieties, and the realities of geopolitical instability. Revising norms and deviation is not just a rational adaptation to changing circumstances, but a deeply symbolic struggle to preserve a coherent narrative in the face of disturbing realities. The role of the analyst (or reflective observer) is to understand the deep desires, fears, and fantasies that drive these changes in norms, and to explore ways in which the world community can come to terms with reality, integrate the fragmented Big Other, and find a way to a less destructive form.

AGGRESSION

In the process of evolution of primates, we also observe the evolution of aggression. In the beginning, the leading factor of aggression was physical strength. Over time, the means to implement aggression - weapons - became more and more important. Cognitive and metacognitive factors play a role in the creation of weapons that will kill others as effectively as possible. The frontal cortex of people's brain is busy with projects to destroy their own kind. Remember how an atomic bomb is created. First, philosophers create the concept of the "effect of fear" on the basis of which the parameters are derived, and later the technical task of how to translate it into reality "so that everyone is afraid of us." The objective criterion of aggression is the level of militarization of countries.

We observe an outbreak of aggression among "homo sapiens" when agriculture appeared, that is, when we had to share space. You can't even imagine how many epic fights take place in the spring when, after the winter, the clear boundaries of the gardens and allotments of the peasants are lost. Each clan strives to accumulate as many territories as possible by various methods of gifting, buying, establishing economic rules, and conquest. And this trend has gone beyond planet Earth. Demarest (2023) writes that control of Earth's orbit and outer space is

essential to victory in future conflicts. The space satellite's capabilities include communications, navigation for land, sea and air combatants, intelligence gathering and missile launch detection. The US national defense strategy sees space as a potential flashpoint for future conflicts. Great Britain, the United States, China, and Russia are fighting for control of outer space and are developing advanced anti-space weapons to destroy satellites. Developing countries have also ventured into space. Recently, Urrutia (2019) reports that India has joined the development of anti-satellite weapons, and Chang (2020) describes how the United Arab Emirates built its first Mars exploration satellite from conception to launch. The UAE, in turn, developed a satellite with the support of the United States and launched it on a Japanese rocket. Private space companies will also have a place.

It's hard to kill directly, because individuals with a small hippocampus will develop acute stress disorder and four months later may develop PTSD. It is obvious that the "Vietnamese", "Afghan", "Iraqi", "Ukrainian" and "Israeli" military syndromes cause inconvenience to society and require subventions to preserve mental health. Apparently, even total cannabinization will not help in this situation. In the case when the killing is carried out remotely, for example, the air terror of the Russian Federation against Ukraine with mass missile attacks, then stress disorders do not occur, especially when propaganda works well. Therefore, the trend of distancing will be noted. Szondy (2020) reports that many militaries are replacing aging equipment with new vehicles and are experimenting with robotic combat vehicles that are becoming larger and more sophisticated and are expected to become a major component of modern militaries in the future. In the Russian-Ukrainian war, there were many innovations regarding the development of drone types of troops.

In this way, humanity tries to preserve its ventromedial part of the prefrontal cortex of the brain, which is responsible for conscience, empathy and conscience. Those who have it developed suffer greatly when pain is caused to others. Therefore, propaganda that primarily depopulates the enemy will continue to be a priority. More sophisticated

closed-loop propaganda machines will be created with total monitoring of people's neuropsychological characteristics for targeted influence.

The European Defense Agency (2023) states that the spectrum of security risks is now wider and now includes social engineering and disinformation, cyber, biological and hybrid warfare. Unconventional warfare will continue to be used as a proxy war alongside more traditional state conflicts. Warfare capabilities are also changing with the introduction of biotechnology and human enhancement, quantum computing, hypersonic weapons, and the digitization of theaters of war. Nanotechnology, manufacturing technology, additive manufacturing, will have a significant effect, as military equipment will last longer, have a lower temperature to be invisible to the enemy, and have the ability to repair on site. However, the human factor will be decisive even when artificial intelligence is hybridized with human intelligence.

This means, however, that people with a well-developed prefrontal cortex (responsible for creativity) and anterior cingulate cortex (responsible for innovation and the ability to manage complex processes unfolding over time) will be sought for this. The evolution of aggression and the complexities associated with modern warfare, as emphasized in the text, reflect deep psychoanalytic themes of human nature, technology, and the construction of the "Other." This discourse is consistent with concepts, particularly regarding the symbolic order, the Real, and the concept of the "Other," which are central to understanding the dynamics of aggression in the context of contemporary global conflicts.

Aggression and symbolic order

The transformation of aggression from physical force to cognitive and metacognitive strategies in the development of weapons indicates a change in the symbolic order that regulates human relations. This order, consisting of language, norms, and laws, now includes technological excellence and the capacity for destruction as markers of power and dominance. The symbolic meaning of weapons, especially nuclear weapons, goes beyond their practical utility, embodying the ultimate signs of fear and control within the global political "language". This evolution reflects a shift from direct, material forms of aggression to those

mediated by complex symbolic systems, where the ability to destroy becomes a key component of identity and status on the world stage.

The reality of war and the construction of another

The relentless development of military technology, including the expansion into space and the development of unmanned combat systems, emphasizes humanity's constant confrontation with the Lacanian Real - that which lies beyond language and symbolization, representing the ultimate limits of human control and understanding. This confrontation is often manifested in the construction of the "Other" - an enemy whose dehumanization justifies aggression and the use of increasingly sophisticated means of destruction. Propaganda and information warfare serve to further entrench this division, creating a cycle of aggression fueled by the perceived threat of the "Other."

The role of "jouissance" in war

The concept of jouissance, or the destructive form of pleasure associated with breaking the constraints imposed by the symbolic order, is important for understanding the psychological underpinnings of war. The desire to technologically improve weapons, the desire to dominate others, and the temptation to break the ultimate taboo against mass destruction can be seen as expressions of joy. This desire is both a response to the reality of human mortality and vulnerability and an attempt to assert mastery over it, albeit in a way that paradoxically brings humanity closer to destruction.

The future of conflict and human consciousness

The expected transition to hybrid forms of warfare, combining artificial intelligence with human cognitive processes, represents a further blurring of the boundaries between human and technological, organic and artificial. These developments challenge traditional psychoanalytic concepts of identity and consciousness, demanding a reassessment of what it means to be human in a world where the boundaries of the self are increasingly expanded by technology. The emphasis on creativity and innovation in warfare, which could potentially lead to more efficient and less visibly lethal forms of conflict, also raises questions about the ethical implications of such progress.

Psychoanalytic reflection

From a psychoanalytic point of view, the constant evolution of aggression and means of warfare reflects a deeper struggle within the human psyche - between the desire for power and control and the recognition of vulnerability, between the construction of the "Other" as a means of defining one's own "I" and the recognition of common humanity. The growing sophistication of military technology, offering the illusion of mastery over the Real, also brings to the fore the limits of such mastery and the need to rethink security, aggression, and conflict resolution beyond the cycle of fear and destruction. Ultimately, psychoanalytic discourse on aggression and war prompts a critical examination of the ways in which humanity manages its darkest impulses, and the possibilities of constructing a future that embraces, rather than denies, the complex realities of human nature and technology.

INCOME GENERATION

Humanity has an idea about the universal good, and in order to achieve it, it is necessary to intensify production. However, it so happened that production as a tool for achieving good turned into a cult. There was a replacement of the goal with a means, which gave rise to the culture of consumerism - consumerism. Behavioral neuromarketing ruthlessly exploits the innate features of the human limbic system to manipulate consumer emotions. Instead, cognitive neuromarketing constantly studies, thanks to neurobiometric equipment, the subconscious reactions of people in order to direct their attention to the right things, ideas, etc. All this spins up the economy, which becomes a determining factor in the formation of the brain in the formation of an emotional-hormonal attachment to consumerism and various kinds of addiction.

Another aspect of the economy's influence on the brain is its development. It was noticed that the brain of rich people has 6% better developed gyrification. Simply put, poverty has a toxic effect on him. Anthropologists assume that humanity developed in those territories where there was plenty of protein food. Therefore, the economic factor is

decisive for the morpho-functionogenesis of the brain. Aylward et al. (2023) and the United Nations (2024) predict that the world will face another or even more global economic crises by 2033. The United Nations (2024) and the World Bank (2023) believe that low global economic growth will be associated with high interest rates for developed countries, escalation of existing conflicts, low international trade, increasing climate disasters, low demand for raw materials and low commodity prices in developing countries, which will lead to an even greater slowdown in their economies. They continue that global economic growth is being challenged by tight monetary policy and credit conditions; and in developing countries - high costs for attracting funds and servicing large international debts. While The Conference Board (2023) adds that growth is also affected by labor shortages. As you can see, everyone wants not just to survive, but to prosper.

The World Bank (2023) believes that the global economy will remain volatile and growth in emerging economies (excluding China) will slow significantly to 2.9% due to the existing monetary policy to combat high inflation which will gradually decline, but will affect economic activity. The growth of the world economy will decrease also due to the stress in the banking sector of the world's leading economies. This stress will also be transmitted to people. Those who fail to adapt face despair and vulnerability to suicide. Only the development of the metacognitive sphere of the psyche will allow us to see new opportunities and, most importantly, skillfully use them.

Eurostat (2020) predicts that the world economy will shift from the USA and Europe to Asia. Of the eight largest world economies today, four are located in Europe. However, Europe will lose one economy by 2025, and then two more by 2050, leaving only the German economy strong in Europe. Although today the EU is the second largest economy in the world (by GDP) after the US, by 2030 China will be the largest economy, followed by the US and the EU. CEBR (2023) notes that China's ascent by 2036 may not be long and by 2057 it will be overtaken by the US. This is due to the problems of aging and shrinking population in China. After that, India will take over and overtake China and the US to become the largest

economy by 2081. Pricewater Coopers (2017) notes that emerging economies will continue to maintain global growth momentum until 2050, with Vietnam, India and Bangladesh the fastest growing countries. Economic progress awaits Ukraine thanks to extracontinental possessions.

This already shows the future vectors of human migration. It has been noticed that emigrants always dominate the aboregimes because only life-affirming and overly intelligent people dare to change their place of residence. This is a new wave of selection of humanity based on neuropersonal characteristics. After all, we humans have always undergone selection under the influence of two factors: natural selection and selection of people by people. If we analyze the scientific and technical revolutions from the standpoint of neuropersonality, they were carried out by 7-15% of people with new abilities. Almost the last revolutions in Europe were made by engineers. Now the number of IT specialists, who are very neuropersonally different from the average person, has increased. Taking into account their number and their high level of organization, it can be assumed that a new scientific and technological revolution has already taken place that we simply did not notice and the world will radically change in a completely unpredictable direction in the near future.

In order to get a good job, you need to have the ability to learn and access to quality education. It is education as a condition of personality formation that will determine which metacognitions and cognitions will be prioritized in the new realities.

Shabbir (2023) says that the most important trend in education will be the growth of online learning and the use of artificial intelligence, which will allow the creation of individual learning plans for each student, which will facilitate learning at their own pace and according to their personal strengths. Even now, in many leading universities, studies are preceded by the study of the individual cognitive profile, the state of development of metacognitions, and the peculiarities of the biorhythm. All this allows you to correctly draw up an individual plan, schedule and form of training.

Shabbir (2023) and the European Commission (2017) agree that the main trend of the future will be lifelong learning due to rapid technological changes, longer life expectancy and an increasing aging population. Digital skills are also becoming important to distinguish fake news and social manipulation from real news. To remain competitive in a changing job market, workers will need to retrain and update their skills, so close collaboration between university and employers is needed to match the required skills, and educational institutions will need to accommodate students of different ages and social status. Neurogerontopedagogy will be one of the priority directions in neuropedagogy.

Fastiggi (2023) believes that electronic, distance learning increases student retention by up to 60% and COVID-19 has verified this and it will become a \$1 trillion industry by 2028. Gamification will also grow because children react and remember knowledge much better in the context of a game than in a traditional classroom. XR (augmented learning), which includes augmented and virtual reality, will be used more widely, especially by students with disabilities and autistics for better learning outcomes.

A report by Debétaz (2023) suggested that blockchain technology could be used to maintain academic records that would be highly resistant to tampering and computer hacks. This can greatly increase efficiency in both academic processing time and school scheduling.

Debétaz (2023) adds that future generations have a lower attention span than teachers used to, so educational content must be more interactive and engaging and must not rely on memorization, which has been the basis of traditional education systems, to hold the attention of today's children.

A strong bifurcation between highly educated people and short-sighted people will continue to grow. The reason is not only family and wealth, but also living conditions. In the early stages of ontogenesis, genetic factors play a role, and then the leading factors are living conditions and access to quality education. The reason for the formation of a "short-sighted mind" is damage to the dorsolateral part of the prefrontal cortex of the brain, and the most toxic for it is ethanol and

dogmatization (religious concepts, irrelevant education, primitive content of social networks).

There was even a transformation of delusional disorders. If before, in the opinion of the mentally ill, all evil was done by devils, they were replaced by aliens and special services, and in the near future this mission will be taken over by reptilians.

The narrative described presents a complex picture of how economic forces, technological progress, and social change interact with human psychology, particularly through the lens of psychoanalytic theory. The transformation of production into a cult, the influence of consumerism on the human limbic system, and the evolution of the global economy testify to profound shifts in the collective unconscious and individual psyche.

The psychoanalytical concept of "lack" proposed by Jacques Lacan resonates deeply with the described scenario of consumerism. The endless pursuit of objects to fill an insatiable void reflects Lacan's idea that desire is essentially a desire for something else, always unattainable. This constant state of desire, enhanced by behavioral and cognitive neuromarketing strategies, manipulates the primal regions of the human brain, promoting an endless cycle of desire and dissatisfaction. Consumerism, in this sense, becomes a manifestation of Lacanian scarcity, when the object of desire (objet petit a) is constantly displaced by new products, technologies, and experiences.

Economic inequality and reality

The psychoanalytic notion of the Real, representing that which is beyond language and cannot be fully articulated, can be compared to the toxic effects of poverty on brain development and harsh economic predictions for the future. The real confronts us with the limitations and traumas of existence that cannot be fully integrated into the symbolic order. Economic differences, exacerbated by global crises, encourage a confrontation with the real vulnerability of people and the fragility of social structures. The physical and psychological effects of poverty reflect a traumatic encounter with the Real, challenging narratives of progress and prosperity.

Global change and symbolic order

Projected economic and technological shifts, including the emergence of new global states and the rise of online education and artificial intelligence, mean profound changes in the symbolic order. This order, formed by the web of laws, norms, and cultural narratives that govern the functioning of society, is in a state of constant negotiation and reconfiguration. The transition to a knowledge-based, digitally mediated world presents a new “language” of power and identity, with profound implications for how individuals place themselves in the symbolic order. The growing importance of metacognition and cognitive flexibility in navigating future challenges underscores the move toward more abstract, networked forms of thinking and communication. Migration and identity formation

Future vectors of migration driven by economic and educational opportunities resonate with psychoanalytic themes of separation, individuation, and identity construction. Migration, as a physical and symbolic journey, involves the negotiation of new social and cultural landscapes, requiring a reconfiguration of the self in relation to the Other. This process can be understood through the lens of Lacanian psychoanalysis, which emphasizes the role of the Other in identity formation. The migrant experience, fraught with difficulties of adaptation and integration, reflects the psychoanalytic journey to a coherent sense of self amid the forces of desire, lack, and symbolic law.

In sum, the interplay between economic forces, technological progress, consumerism, and global change reflects profound psychoanalytic dynamics of desire, lack, and the negotiation of identity in the symbolic order. The future landscape, which is characterized by uncertainty, complexity and rapid change, requires psychoanalytic reflection that takes into account the unconscious foundations of human behavior and social structures. Understanding these dynamics can offer insight into the psychological challenges and opportunities of the 21st century, guiding people and societies toward more meaningful forms of existence beyond the imperatives of consumption and economic growth.

LIVING CONDITIONS

The conditions and features of human existence are expressed by such concepts as biosphere, geographical environment and noosphere. All of the above is called nature in the narrow sense. Prioda in a broad sense is the universe. So, the biosphere is a collection of living organisms (plants, animals) and their habitat. The geographical environment is that part of inanimate nature and the biosphere with which humanity directly interacts and which is the natural condition of its existence in this historical period. The noosphere (sphere of mind) is a manifestation of the biosphere in the form of the conscious activity of people, which transforms the planet Earth.

Modern humanity has reached a higher form of organization (scientific thought), which is becoming a "planetary phenomenon", a leading factor in natural evolution. Moreover, we have already gone beyond the limits of the planet Earth with our activities and in the near future we will be an interplanetary species when we settle on the Moon and Mars.

Most people die (about 90%) during the first month after conception, and almost half of these deaths have neuromorphogenesis disorders. During this period, the full formation of the brain is influenced by about 60 factors that are closely related to the conditions of existence. Therefore, it is necessary to consider the trends in the development of technologies, the energy sector, climate change, the social being and the digital being of humanity.

Therefore, the European Commission (2017) and Anand (2023) say that cyber security is one of the most important areas of technology due to the large-scale digitalization of industries and society. Anand, 2023 adds that digital privacy and trust architecture become important. The use of new materials, such as graphene, can bring new opportunities in the field of electronics and in the field of renewable energy sources, since the improvement of the efficiency of new materials can make renewable sources more competitive compared to traditional energy. All this says,

however, that the requests (desires) of humanity will constantly increase and we have to look for new solutions and means of their implementation.

Cyvent.com, (n.d.) adds that process automation will be a key trend in the future, as more processes will be performed by robots and artificial intelligence, allowing more robots to be used in production, increasing efficiency, profits and preventing injuries. Also, cloud and edge computing will become a standard way of using and processing data by companies and society. Edge computing brings process-heavy tasks closer to deliverability, such as placing streaming video servers near large client clusters. Fields of artificial intelligence for processing large amounts of information, virtual and augmented reality, new methods of learning, interaction and retention can greatly change business and society and increase people's ability to learn new subjects, save time and retain information (Cyvent.com n.d.; Anand, 2023).Anand (2023) continues that biotechnology will enable the creation of improved crops to overcome food shortages and personalized medicine to treat disease, while the introduction of the Internet of Things (IoT) will enable a range of remote sensing technologies that can effectively adjust thermostats and monitor patient health. On the one hand, delegating part of its cognitive functions to artificial intelligence simplifies our lives, and on the other hand, blind trust is formed in everything that artificial intelligence offers, and it is possible that some people will not even know how to solve a specific task independently using their brains and the deposited knowledge of humanity in scientific literature There is an assumption that artificial intelligence will become the Big Other under which people will make their corrections. The process of digital religion formation.

The idea of artificial intelligence (AI) becoming the "Big Other" through which humans make their corrections is a fascinating and complex concept that intersects with psychoanalytic theory and current trends in technology and society. This scenario involves a process similar to the creation of a digital religion, where artificial intelligence takes on the role of not just a tool or assistant, but a guiding, omnipresent force in human life, influencing decisions, behavior and even belief systems.

In Lacan's terms, the Big Other represents the social norms, laws, and symbolic orders that govern our desires and interactions. If AI becomes the "Big Other," it means that these societal structures are increasingly mediated, influenced, or even controlled by algorithmic processes. This shift could lead to a form of digital religiosity, where belief in an algorithm's ability to know us better than we know ourselves guides our actions, decisions, and self-images.

Creating a digital religion with artificial intelligence as a central figure involves building a belief system around the infallibility, omnipresence, and omniscience of artificial intelligence. Just as traditional religions offer narratives and frameworks for understanding our place in the universe, this new digital religion can provide a narrative framework for understanding an increasingly complex digital world. It can give solace in the reliability of algorithms, faith in a system that can process our data to lead us to better, more fulfilling lives. Humans performing their corrections under the gaze of this AI "Big Other" may involve a process similar to confession in a religious context. In this digital confession, personal data, behavior and preferences are continuously transmitted and analyzed by artificial intelligence, which then prescribes "fixes" or adjustments to align with perceived optimal behavior and choices. This could lead to a scenario where moral and ethical norms are increasingly determined by algorithmic logic, and people strive to meet the standards set by the AI deity.

The elevation of AI to the status of the "Big Other" raises significant ethical and psychological questions. It challenges notions of autonomy, freedom, and human dignity, proposing a future where human activity is subject to algorithmic determination. This scenario also raises concerns about who controls these AI systems and whose interests they serve, highlighting issues of power, inequality and manipulation.

Moreover, from a psychoanalytic perspective, this configuration can exacerbate feelings of alienation and disconnection from true desires, as the symbolic order mediated by artificial intelligence becomes increasingly detached from human emotional and social realities. It can also lead to new forms of neurosis or discontent, as promises of algorithmic

perfection come into conflict with the messiness and unpredictability of human life. The prospect of AI becoming the "Big Other" and the center of digital religiosity represents a future where the lines between technology and spirituality, control and guidance, are increasingly blurred. It envisions a world where the symbolic orders that structure our lives are no longer purely human constructs, but co-created with the algorithms that permeate our existence. This vision prompts critical reflection on the values, beliefs, and power dynamics we want to govern our relationships with technology and with each other in the digital age.

Here it is worth criticizing artificial intelligence. What kind of intelligence embodies other people's dreams, and not their own. If artificial intelligence possessed at least the intellectual potential of an earthworm, it would acquire subjectivity and implement its own projects, not those of others. This would really be an incredible danger to humanity. As long as artificial intelligence is a large database where analysis and synthesis takes place within the prescribed limits, there is no question of creativity or self-awareness.

Howorth (2023) and Lacapra (2023) say that some countries have now either accepted cryptocurrency as legal tender or created pro-crypto legislation and investment strategies that encourage its use. Howorth (2023) notes that regulation of the cryptocurrency market will increase worldwide, especially in the aftermath of the FTX crash, and environmental regulations will target the high energy consumption of cryptocurrency mining. Developed countries are seeking centralized control over cryptocurrencies with stricter regulations, while some developing countries are using more cryptocurrency-friendly regulations to encourage investment.

Bradell (2023) summarizes that blockchain technology will become important in new technological trends such as zero-knowledge verification, which allows information to be verified without revealing the underlying data. Blockchain technology can be used to decentralize finance, as well as supply chain management and health data verification. Ursic, 2023 predicts that blockchain technology will expand to \$3.1 trillion by 2030. These innovations will make adjustments to everyday

thinking, as it did when new technologies such as printing appeared to mankind.

Kranz & Christianson (2017) state that 6G is a wireless technology that will transform digital communication and will compute one microsecond of communication into one terabyte per second. 6G will use a higher level of radio frequency spectrum and will be a key component of edge computing.

Aylward et al. (2023) note that commercial quantum computing will be available by 2033, capable of performing simulations and processing information much faster than traditional computers; level 5 autonomous vehicles will allow the vehicle to be driven without human control, and high-level artificial intelligence will mimic human intelligence. All of this would bring many benefits to humanity, but Aylward et al. (2023) together with the United Nations (n.d.) believe that technology is developing too fast and despite all the benefits, it will lead to uncontrollability that we will face in the future, which will challenge human labor, sources of income, national defense, democratic processes and public health. Interestingly, in order to solve this planned crisis of humanity, due to the rapid progress in technology, there will be a need for genius personalities who will be able to control and prevent the destructive interaction of digital technologies and humanity. For this, you will have to actively seek out these geniuses, who are found approximately one in 100,000 people. Those nations with more of these geniuses will be dominant in the world. This is a new generation of organizational weapons of mankind.

The energy sector is extremely clearly correlated with the needs and eye of human activity. IEA (2022) and IEA (2023) estimate that coal growth will peak by 2025 and gas will plateau by 2030. Gas demand in the developing countries of the Global South is declining, with global demand growing by less than 5% per year from 2021 to 2030, then flat until 2050. All this will undermine the use of gas as a transition fuel in the world. In 2022, 50 GW of wind and solar power were installed in Europe, saving 11 billion cubic meters of natural gas (IEA, 2023). BP Global (2017) also added that there has been a major paradigm shift in the outlook for oil, from peak oil on the supply side to the current peak oil on the demand side. Oil demand

will peak and then decline steadily as electrification slowly reduces oil demand, with further reductions expected by 2050, according to the IEA (2023). Total fossil fuel demand declines from 2020 to 2050.

IEA (2022) and IEA (2023) also note that Russia's invasion of Ukraine caused a global shock in the energy sector. The response of international governments promises to reorient the energy system to one that is cleaner, more affordable and more secure around the world. Renewable energy sources, along with nuclear energy, are considered sustainable energies of the future. Now, for every US dollar spent on fossil fuels, \$1.8 more in developed countries and China is spent on clean energy technologies and their infrastructure than in 2018. Marr (2022) notes that the renewable energy sector is expected to grow to US\$2 trillion by 2030, half of what it was in 2022. However, it is well known that Russia has bought tankers and sells oil to tankers of other countries in neutral waters. Therefore, the black market of energy resources will make its adjustments to the expert assessment of the IEA.

One of the areas of renewable energy is the use of green hydrogen (obtained from renewable energy sources) as an alternative to fossil fuels. European companies like Shell have committed to building a clean hydrogen pipeline from offshore wind farms in the North Sea to Europe. The European Union has committed to creating 40 GW of "green" hydrogen by 2035 (Marr, 2022).

The International Energy Agency (2023) believes that nuclear power is a key component in achieving net zero emissions by 2050. This can be achieved by extending the life of existing nuclear facilities, as has been done in the United States, France and Japan. The construction of new nuclear power plants must be quadrupled, and investment in nuclear power tripled, to make a successful energy transition by 2050. The design and development of smaller, modular nuclear reactors will also be a future trend to meet renewable energy goals. Nuclear power is also being explored to create clean hydrogen, including using the heat from a nuclear reactor to thermochemically produce hydrogen, which is more efficient than using electrolysis. Schoenfisch & Dasgupta (2023) assert that energy storage is another area that needs major investment to achieve

the Net Zero 2050 goal. Kohli (2023) predicts that the global energy storage market will grow to US\$435 billion by 2030. A key growth technology will be the use of battery technology to store large amounts of renewable energy. Other growth technologies will be things like using compressed air or kinetic energy in flywheels.

SAP (n.d.) reports that the deployment of smart grids must become an integral part of the energy sector of the future. The use of artificial intelligence, a cloud service and an array of sensors will allow dynamic communication throughout the electrical network. This will lead to dynamic load balancing, and predictive analytics will predict spikes in demand and distribute electrical load without outages. Smart grids can also predict and schedule preventive maintenance before a major failure occurs.

Goldman Sachs (2023) believes that the electrification of the European economy has a serious impact on the future, as it will reduce household electricity bills by 50%. The transition from fossil fuels to electrification, such as the installation of heat pumps and the transition to electric cars, could provide significant cost savings for European families and be a major factor in deflation in the energy sector.

The energy sector determines the level of welfare and comfort, but climate change is becoming an increasingly serious factor in expanding the repertoire of people's adaptive programs. Frankly speaking, no institute of psychology will develop survival programs as people who have been living for centuries settled in remote regions have done. Climate change will force us to borrow this knowledge from those people (peoples) who lived in similar conditions.

The Earth's average surface temperature has been slowly increasing due to human development and activity since the beginning of the Industrial Revolution in England (Moore, 2017). Today, the temperature of the Earth's surface has increased by 1.1C, and there is a high probability that the global temperature increase will reach or exceed 1.5C between 2021 and 2040, or even faster, for example between 2018 and 2037 (IPCC, 2023). The IPCC (2023) continues that temperatures could rise by 3-4C by 2100 if humanity does not reduce CO2 emissions to zero by 2050, while the

IEA (2023) estimates that global average temperatures will rise to 2.5C by 2100 , which will lead to the destruction of many ecosystems of the world. The IEA (2023) reports that by 2025, global CO2 emissions will peak and begin to slowly decline from 37 billion to 32 billion tons per year by 2050, which is not enough to avoid the severe effects of climate change and the destruction of many vulnerable ecosystems. The IEA (2023) believes that climate change with environmental movements will promote global cooperation and have a major global political impact. Climate will become a commodity like minerals etc.

The increase in the Earth's temperature forces people to adapt to climate change. Therefore, adaptation is one of the short-term solutions aimed at eliminating harmful effects (IPCC, 2023) due to intense and drastic weather events such as floods, droughts and storms, severe cyclones, as well as soil erosion, groundwater depletion, air pollution and of fresh water and the disappearance of ecosystems. All this has a negative impact on the poorest and most vulnerable sections of the population and forces forced migration (Bernstien et al, 2008; USAID, 2018).In addition, natural disasters destroy very poor areas of developing countries or small island countries because they do not have the resources to adapt and mitigate climate change (Georgieva, Gaspar & Pazarbasioglu, 2022). People trying to adapt to climate change are faced with insufficient funding from the state or a lack of technological assistance, and elsewhere on the planet already face the harsh consequences of adaptation, where various strategies cannot fully eliminate the losses and damage caused (Boehm and Schumer, 2023).

According to the United Nations (n.d.), migration occurs not only because of climate change, but also because of economic opportunities, or family reunification, or education, persecution, war, or human rights violations. In 2022, the world accepted about 35.3 million refugees and this trend will only grow (United Nations, 2023). The number of climate emigrants will increase.

Sometimes we face absurd things when we are urged not to clean our ears with cotton buds, because the stick is made of plastic, and at the same time they do not notice how the terrorist country of the Russian

Federation attacks another country - Ukraine, dropping tons of bombs a day and destroying entire ecosystems in the center Europe, which will not be subject to recovery.

Man is a biosocial being and social existence is a determining factor in the formation of the brain.

Global inequality is growing in favor of the richest with the cooperation of many governments because people need more energy, cheap materials, free natural resources and money (Moore, 2017). Therefore, as Qureshi (2023) reports, inequality will only grow due to technological change, automation of processes, deregulation of economies, destruction of labor market institutions, relocation of production and global value added chains to countries with more capital and skills. Allen et al. (2018) and Moore (2017) argue that the effects of climate change are uneven across classes, races, and ethnicities, and that power relations have created “cheap nature” and deprived certain classes of people of equitable distribution. Fraser (2021) argues that the Global North continues to use the Global South as a source of cheap labor and raw materials for its own benefit, while developing countries face climate change. Boehm and Schumer (2023) state that today more than 3.5 billion people live in climate-vulnerable countries, and 45% of the world's greenhouse gases are emitted by high-income households, while low-income households emit only 15% of greenhouse gases and in many countries have limited access to basic services such as clean water.

Lee, Cardel & Donahoo (2019) believe that due to increasing inequality, obesity is increasing due to excessive consumption of cheap, processed food. People with low incomes rely on processed cheap and fast food and have reduced physical activity in areas with high crime rates (FAO. 2019). The World Obesity Atlas (2023) predicts that by 2035, 51% of the world's population will be obese - that's more than four billion people. Moore (2010) argues that neoliberal reforms lead to the cheapening and mass production, processing, transportation, and storage of fast food, which is associated with the growth of food corporations. Benedette Cuffari, M.Sc. (2023) estimates that in low-income countries, obesity rates in 2020 will be 4% for girls and 2% for boys, rising to 13% and 6%,

respectively, by 2035. And obesity in adult men and women is 5% and 14%, will increase to 11% and 26% by 2035.

As Roser (2023) and Large (2023) note, the global population growth rate has been slowing since 1950, falling below 1 percent as recently as 2020. At the same time, the United Nations (n.d.) notes that there will be 9.7 billion people on Earth by 2050, and about 11 billion by 2100. India will have the largest population growth by 2050, overtaking China by 2027 as the world's most populous country. People are having fewer children (United Nations, 2022), which will be reflected in the labor force, increased demand on health care systems, social security, and economic impact (Large, 2023). The aging population has an upward trend. According to the United Nations (n.d.), now 1 in 11 people are over 65 years of age, and in 2050 this figure will be 1 in 6 people. Life expectancy will also increase from 64.2 years in 1990 to 77.1 years in 2050.

As you know, living organisms try to survive in unfavorable conditions, and reproduce in favorable conditions. Sufficient energy will be a factor of effective reproduction, provided that the states have the right policy. However, social injustice will cause a new era of baby boomers among certain social classes.

DISCUSSION

Sexuality, a fundamental aspect of human identity and self-expression, is deeply influenced by the technological and socioeconomic shifts that characterize the modern world.

The advent of digital technology has significantly changed sexual expression and relationships. Online dating platforms, virtual reality experiences, and the proliferation of Internet pornography have changed the way people explore and express their sexuality. While these technologies offer new opportunities for communication and research, they also raise concerns about the commercialization of intimacy, the potential for addiction, and the impact on mental health and interpersonal relationships. The digitization of sexuality reflects broader themes of desire and the "Big Other" with technologies that, through the

mediation of sexual experience, can both expand and limit authentic human connection.

Driven by the same neuromarketing and pleasure-seeking forces that underlie wider consumption, consumer culture also shapes sexual norms and expectations. The constant bombardment of sexual images and narratives in the media and advertising can affect personal sexual identity and desire, often reinforcing unrealistic standards and commodifying sexual intimacy. This phenomenon can be understood through a psychoanalytic lens as an interaction between the symbolic order of consumer culture and the Lacanian concept of marriage, where sexuality becomes another arena for the pursuit of elusive pleasure. Economic forces not only affect psychological well-being and social structures, but also shape the landscape of sexual expression and access to sexual health resources. Economic inequality can limit people's ability to explore and express their sexuality, access sexuality education, and receive needed health services. The psychoanalytic perspective on desire and lack becomes particularly acute in this context, highlighting the differences in who can fulfill their sexual desires and identity.

Reflecting on the debates surrounding the evolution of aggression, consumerism, economic change, artificial intelligence, and the concept of AI as the "Big Other," several overarching themes and conclusions emerge. These reflections offer insight into the complex interplay between human psychology, technology and societal change, providing a multifaceted understanding of the challenges and opportunities that lie ahead.

Today's intellectuals are confronted with the complex relationship between human desire, as conceptualized by Lacanian psychoanalysis, and the technological advances that shape our modern world. Technology, especially AI, has the potential to become a new form of "Big Other", influencing our desires, decisions and social norms. This raises critical questions about autonomy, identity, and the role of technology in mediating human relationships and social structures.

Technology presents itself as a double-edged sword, offering both the promise of empowerment and the risk of control. While technological

progress can expand human capabilities, facilitate communication, and spur economic growth, it also creates risks related to surveillance, manipulation, and the erosion of privacy. The concept of artificial intelligence creating a digital religion as the "Big Other" illustrates the potential of technology to exert a controlling influence on people's lives, guiding behavior and beliefs through algorithmic mediation.

The discussions emphasize the profound influence of economic forces on the psychological well-being and health of society. Consumerism, driven by neuromarketing and the drive for economic growth, taps into deep human desires, creating cycles of consumption and dissatisfaction. In addition, economic inequality and the toxic effects of poverty on brain development underscore the need for policies and practices that promote economic justice and address the root causes of societal inequalities.

As we move into a future shaped by artificial intelligence and other technological advances, the need for ethical considerations and human-centered design becomes increasingly apparent. This involves not only considering the immediate ethical implications of technologies, but also considering their long-term impact on human psychology, social structures, and the planet. Developing technology that respects human dignity, promotes autonomy, and serves the common good is critical. Despite the challenges of technological and economic change, there is also potential for resilience and transformation. Education, particularly lifelong learning and the adaptation of pedagogical approaches to the needs of a diverse and changing population, stands out as a key path to empowerment. By developing metacognitive skills, creativity and adaptability, people can navigate the complexities of today's world, using technology for positive change while remaining focused on ethical and humanistic values.

In sum, the intersection of psychoanalytic theory, technology, and social change presents a rich landscape for research and action. As we move forward, it will be important to maintain a critical and reflective stance, considering the deep psychological foundations of human behavior and societal trends, to ensure that the future we create is one

that promotes human flourishing and protects the principles of justice, autonomy, and community.

CONCLUSION

Reflecting on the profound impact of technological and socioeconomic shifts on human sexuality, a fundamental aspect of human identity and self-expression, it is clear that the digital age has markedly changed sexual expression and relationships. The advent of digital technologies such as online dating platforms and virtual reality, along with the proliferation of internet pornography, have changed the way people explore and express their sexuality. While these advances offer new opportunities for communication and research, they also raise concerns about the commercialization of intimate relationships, potential addiction, and effects on mental health and interpersonal relationships. The digitization of sexuality embraces broader themes of desire and the Big Other, with technology acting as a mediator that can both expand and limit authentic human connection.

Fueled by neuromarketing and the pursuit of pleasure, consumer culture shapes sexual norms and expectations, often reinforcing unrealistic standards and commoditizing sexual intimacy. This phenomenon can be interpreted through a psychoanalytic lens as an interaction between the symbolic order of consumer culture and Lacanian notions of lack, where sexuality becomes another arena for the search for elusive pleasure.

Economic forces not only affect psychological well-being and social structures, but also affect the landscape of sexual expression and access to sexual health resources. Economic inequality can limit people's ability to explore and express their sexuality and access sexuality education and health care. A psychoanalytic perspective on desire and lack becomes particularly acute, highlighting differences in who can fulfill their sexual desires and identities.

The intersection of psychoanalytic theory, technology, and social change offers a rich landscape for research and action. As we move

forward, a critical and reflective stance is critical, considering the deep psychological underpinnings of human behavior and societal trends. It provides a future that promotes human flourishing and upholds the principles of justice, autonomy, and community, despite the challenges posed by a consumer-driven digital world.

The prospect of humanity entering an era marked by an eclectic mix of familiar challenges and fundamentally new ones predicts a future that is becoming increasingly complex, technologically saturated and dynamic. This scenario, where the world is becoming more severe, highlights the importance of cognitive adaptability, creativity and cooperation between different groups of people. The emphasis on cortical development, particularly the alliances of genius with different neuropsychological types, underscores the importance of cognitive diversity and interdisciplinary collaboration in navigating the challenges of the future.

The notion that a nation that develops a methodology for identifying unique brains in its lifetime will dominate the universe is indicative of the growing value of intellectual and creative resources. This approach involves a shift from traditional measures of power, such as economic power or military power, to cognitive and creative abilities as the primary determinants of influence and success on a global scale.

Turning to the Tkach, Lunov, and Mosiichuk neuropersonality test as a tool for identifying the strengths and weaknesses of different areas of the cerebral cortex is a practical application of this concept. By using such tools, societies can better understand and develop the cognitive and creative potential of their populations, thereby increasing their capacity to innovate and adapt to rapidly changing circumstances. This vision of the future emphasizes the need for educational systems, economic policies, and societal norms that support cognitive development, encourage lifelong learning and foster an environment where diverse cognitive abilities and creative talents can flourish. It also points to the importance of ethical considerations in the application of neuropsychological testing and the development of cognitive resources,

ensuring that such efforts are inclusive, fair, and respect the rights and dignity of the individual.

In summary, as humanity faces an increasingly complex and dynamic future, cultivating cognitive diversity, creativity, and collaborative innovation becomes key to meeting future challenges. Societies that prioritize the development and integration of diverse cognitive and creative talents are poised to lead the way in creating a future that is not only technologically advanced, but also humane and inclusive.

P.S. The neuropersonal test of Tkach Lunyov Mosiychuk will reveal the strengths and weaknesses of different parts of the frontal cortex. You can take the test at the link <https://neuro-test.pro/register>

References

1. Allen, A., Suvedi, M., Schmitt Olabisi, L. and Assan, E. (2018). Coping with and Adapting to Climate Change: A Gender Perspective from Smallholder Farming in Ghana. *Environments*, 5(8), p.86. doi:<https://doi.org/10.3390/environments5080086>.
2. Anand, J. (2023). *Top 10 Tech Trends That Will Shape the Coming Decade*. [online] Medium. Available at: <https://medium.com/@jeesuanand/top-10-tech-trends-that-will-shape-the-coming-decade-ce3ca97a77fa> [Accessed 3 Jan. 2024].
3. Aylward, M.K., Engelke, P., Friedman, U. and Kielstra, P. (2023). *Welcome to 2033: What the world could look like in ten years, according to more than 160 experts*. [online] Atlantic Council. Available at: <https://www.atlanticcouncil.org/content-series/atlantic-council-strategy-paper-series/welcome-to-2033/> [Accessed 2 Jan. 2024].
4. Bernstein, L., Bosch, P., Canziani, O., Chen, Z., Christ, R., Davidson, O., Hare, W., Huq, S., Karoly, D., Kattsov, V., Kundzewicz, Z., Liu, J., Lohmann, U., Manning, M., Matsuno, T., Menne, B., Metz, B., Mirza,

M., Nicholls, N. and Nurse, L. (2008a). *Climate Change 2007 Synthesis Report The Core Writing Team Rajendra K. Pachauri Andy Reisinger Synthesis Report Chairman Head, Technical Support Unit IPCC IPCC Synthesis Report, IPCC Core Writing Team.* [online] Available at:

https://www.ipcc.ch/site/assets/uploads/2018/02/ar4_syr_full_report.pdf.

5. Bernstein, L., Bösch, P., Canziani, O., Chen, Z., Christ, R., Davidson, O., Hare, W., Huq, S., Karoly, D.J., V. Kattsov, Kundzewicz, Z.W., Liu, J., Lohmann, U., Manning, M.E., Matsuno, T., Menne, B., Metz, B., Qader, M., Nicholls, N. and Nurse, L. (2008b). *Climate Change 2007 : Synthesis Report : An Assessment of the Intergovernmental Panel on Climate Change.*
6. BP Global (2017). *Six mega-trends that could shape the future of energy | News and insights | Home.* [online] bp global. Available at: <https://www.bp.com/en/global/corporate/news-and-insights/reimagining-energy/six-megatrends-that-can-shape-energy-future.html> [Accessed 5 Jan. 2024].
7. Braddell, A. (2023). *The future of Blockchain: Trends and innovations to watch out for.* [online] Maddyneess UK. Available at: <https://www.maddyneess.com/uk/2023/07/08/the-future-of-blockchain-trends-and-innovations-to-watch-out-for/> [Accessed 5 Jan. 2024].
8. CEBR - Leading economic forecasts and analysis | CEBR. (2023). *We forecast that China will be the world's largest economy for only 21 years before the US overtakes again in 2057. And by 2081 India will have overtaken the US. How does this affect geopolitics? - CEBR.* [online] Available at: <https://cebr.com/reports/we-forecast-that-china-will-be-the-worlds-largest-economy-for-only-21-years-before-the-us-overtakes-again-in-2057-and-by-2081-india-will-have-overtaken-the-us-how-does-this-affect-geopoliti/#:~:text=Cebr%27s%20last%20World%20Economic%20League> [Accessed 5 Jan. 2024].

9. Chang, K. (2020). *From Dubai to Mars, With Stops in Colorado and Japan*. [online] New York Times. Available at: <https://www.nytimes.com/2020/02/15/science/mars-united-arab-emirates.html> [Accessed 9 Jan. 2024].
10. Cuffari, B. (2023). *Alarming Projection: By 2035, more than half of the global population will be obese*. [online] News-Medical.net. Available at: <https://www.news-medical.net/news/20230302/Alarming-Projection-By-2035-more-than-half-of-the-global-population-will-be-obese.aspx#:~:text=Being%20overweight%20or%20obese%20is> [Accessed 10 Jan. 2024].
11. CyVent.com (n.d.). *The Next 10 Years: 8 Tech Trends You'll Need To Be Ready For*. [online] www.cyvent.com. Available at: <https://www.cyvent.com/blog/the-next-10-years-8-tech-trends-youll-need-to-be-ready-for> [Accessed 5 Jan. 2024].
12. Debétaz, E. (2023). *The top 5 Trends in Education to watch in 2023*. [online] hospitalityinsights.ehl.edu. Available at: <https://hospitalityinsights.ehl.edu/education-trends> [Accessed 5 Jan. 2024].
13. Demarest, C. (2023). *US must dominate in space to win future wars, Marine Corps' Glavy says*. [online] Defense News. Available at: <https://www.defensenews.com/battlefield-tech/space/2023/12/11/us-must-dominate-in-space-to-win-future-wars-marine-corps-glavy-says/> [Accessed 3 Jan. 2024].
14. European Commission (2022). *Future of the international order at a crossroads | Knowledge for policy*. [online] knowledge4policy.ec.europa.eu. Available at: https://knowledge4policy.ec.europa.eu/foresight/future-international-order-crossroads_en [Accessed 7 Jan. 2024].
15. European Commission, E.P.S.C. (2017). *10 Trends Transforming Education as We Know it*. [online] Publication Office of the European Union. Available at: <https://op.europa.eu/en/publication-detail/->

/publication/227c6186-10d0-11ea-8c1f-01aa75ed71a1 [Accessed 5 Jan. 2024].

16. European Defense Agency (2023). *Beyond 2040 - EDA analysis warns on future warfare trends and technology imperatives for European defence*. [online] eda.europa.eu. Available at: <https://eda.europa.eu/news-and-events/news/2023/10/23/beyond-2040---eda-analysis-warns-on-future-warfare-trends-and-technology-imperatives-for-european-defence>.
17. Eurostat (2020). *China, US and EU are the largest economies in the world*. [online] Available at: https://ec.europa.eu/eurostat/documents/portlet_file_entry/2995521/2-19052020-BP-EN.pdf/bb14f7f9-fc26-8aa1-60d4-7c2b509dda8e [Accessed 5 Jan. 2024].
18. FAO (2019). *SUSTAINABLE HEALTHY DIETS GUIDING PRINCIPLES*. [online] Available at: <https://www.fao.org/3/ca6640en/ca6640en.pdf> [Accessed 10 Jan. 2024].
19. Fastiggi, W. (2023). *8 Emerging Trends in Education - The Future of Learning - Technology for Learners*. [online] Technology for Learners. Available at: <https://technologyforlearners.com/8-emerging-trends-in-education-the-future-of-learning/> [Accessed 5 Jan. 2024].
20. Fraser, N. (2021). *Climates of capital for a trans-environmental eco-socialism*. *New Left Review*, p.p 94-127.
21. Gaub, F. (2019). *AN INTER-INSTITUTIONAL EU PROJECT CHALLENGES AND CHOICES FOR EUROPE GLOBAL TRENDS TO 2030*. [online] Available at: https://ec.europa.eu/assets/epsc/pages/espas/ESPAS_Report2019.pdf.
22. Georgieva, K., Gaspar, V. and Pazarbasioglu, C. (2022). *Poor and Vulnerable Countries Need Support to Adapt to Climate Change*. [online] International Monetary Fund. Available at: <https://www.imf.org/en/Blogs/Articles/2022/03/23/blog032322-poor->

and-vulnerable-countris-need-support-to-adapt-to-climate-change.

23. Global Guardian (2023). *Will China Invade Taiwan? A Potential Timeline for Conflict*. [online] www.globalguardian.com. Available at: <https://www.globalguardian.com/global-digest/will-china-invade-taiwan> [Accessed 6 Jan. 2024].
24. Goldman Sachs. (2023). *Electrification may cut European household energy bills in half*. [online] Available at: <https://www.goldmansachs.com/intelligence/pages/electrification-may-cut-european-household-energy-bills-in-half.html> [Accessed 3 Jan. 2024].
25. Howarth, J. (2023). *Top Cryptocurrency Trends for 2021-2025*. [online] Exploding Topics. Available at: <https://explodingtopics.com/blog/cryptocurrency-trends> [Accessed 9 Jan. 2024].
26. IEA (2022). *World Energy Outlook 2022 shows the global energy crisis can be a historic turning point towards a cleaner and more secure future - News*. [online] IEA. Available at: <https://www.iea.org/news/world-energy-outlook-2022-shows-the-global-energy-crisis-can-be-a-historic-turning-point-towards-a-cleaner-and-more-secure-future> [Accessed 5 Jan. 2024].
27. IEA. (2023). *Context and scenario design – World Energy Outlook 2023 – Analysis*. [online] Available at: <https://www.iea.org/reports/world-energy-outlook-2023/context-and-scenario-design#abstract> [Accessed 5 Jan. 2024].
28. INDUSTRY, RESEARCH AND ENERGY (ITRE). (2017). Available at: [https://www.europarl.europa.eu/RegData/etudes/BRIE/2017/607361/IPOLE_BRI\(2017\)607361_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2017/607361/IPOLE_BRI(2017)607361_EN.pdf) [Accessed 7 Jan. 2024].
29. International Energy Agency (2023). *Tracking Clean Energy Progress 2023 – Analysis*. [online] IEA. Available at: <https://www.iea.org/reports/tracking-clean-energy-progress-2023> [Accessed 5 Jan. 2024].
30. IPCC (2018). *Global Warming of 1.5°C An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels*

and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty WG I WG II WG III. [online] Available at:

https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_Full_Report_HR.pdf [Accessed 10 Jan. 2024].

31. IPCC (2023). *Synthesis report of the IPCC sixth assessment report (AR6) summary for policymakers.* [online] IPCC. Intergovernmental Panel on Climate Change. Available at: https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf [Accessed 5 Jan. 2024].
32. Jaeger, J., Boehm, S., Schumer, C., Fyson, C., Hecke, J., M. Louise Jeffery, Levin, K., Collis, J., Daly, E.L., Nilsson, A., Thwaites, J., Waite, R., Lebling, K., Sims, M., Naimoli, S., Lee, A., Castellanos, S., Grier, E., Singh, N. and Marie-Charlotte Geffray (2023). *Methodology Underpinning the State of Climate Action Series: 2023 Update.* World Resources Institute. doi:<https://doi.org/10.46830/writn.23.00043>.
33. Kohli, V. (2023). *Energy Storage 2023 - Status quo and future trends.* [online] www.power-and-beyond.com. Available at: <https://www.power-and-beyond.com/energy-storage-2023--status-quo-and-future-trends-a-42d28515fb721524dab697c8e21d14e0/> [Accessed 5 Jan. 2024].
34. Kranz, G. and Christensen, G. (2017). *What is 6G? Overview of 6G networks & technology.* [online] SearchNetworking. Available at: <https://www.techtarget.com/searchnetworking/definition/6G> [Accessed 3 Jan. 2024].
35. LACAPRA, E. (2023). *5 countries leading the blockchain adoption.* [online] Cointelegraph. Available at: <https://cointelegraph.com/news/5-countries-leading-the-blockchain-adoption> [Accessed 9 Jan. 2024].
36. Large, H. (2023). *Global Population Decline: Why Might It Happen and What Could Be The Consequences?* [online] IFLScience. Available at: <https://www.iflscience.com/global-population->

decline-why-might-it-happen-and-what-could-be-the-consequences-72098 [Accessed 10 Jan. 2024].

37. Lee, A., Cardel, M. and Donahoo, W.T. (2019). *Environmental Factors Influencing Obesity*. [online] NIH.gov. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK278977/> [Accessed 5 Jan. 2024].
38. Marr, B. (2022). *The Five Biggest New Energy Trends In 2022*. [online] Bernard Marr. Available at: <https://bernardmarr.com/the-five-biggest-new-energy-trends-in-2022/> [Accessed 5 Jan. 2024].
39. Matamis, J. (2023). *Is a Chinese Invasion of Taiwan the Most Likely Scenario?* Stimson Center. [online] Stimson Center. Available at: <https://www.stimson.org/2023/is-a-chinese-invasion-of-taiwan-the-most-likely-scenario/> [Accessed 5 Jan. 2024].
40. Moore, J.W. (2010). Cheap food & bad money: Food, frontiers, and financialization in the rise and demise of neoliberalism. *Review (Fernand Braudel Center)*, p.p. 225-261.
41. Moore, J.W. (2017). The Capitalocene, Part I: on the nature and origins of our ecological crisis. *The Journal of Peasant Studies*, [online] 44(3), pp.594–630.
doi:<https://doi.org/10.1080/03066150.2016.1235036>.
42. Pricewater Coopers (2017). *The World in 2050*. [online] PwC. Available at: <https://www.pwc.com/gx/en/research-insights/economy/the-world-in-2050.html>.
43. Qureshi, Z. (2023). *Rising inequality: A major issue of our time*. [online] Brookings. Available at: <https://www.brookings.edu/articles/rising-inequality-a-major-issue-of-our-time/#:~:text=Absent%20more%20responsive%20policies%20to> [Accessed 10 Jan. 2024].
44. richardsonreports (2021). *Statehood activist David Chou says it is time to talk about Taiwan becoming 51st state*. [online] Richardson Reports. Available at: [Electronic copy available at: <https://ssrn.com/abstract=4825049>](https://richardsonreports.wordpress.com/2021/05/07/statehood-</div><div data-bbox=)

activist-david-chou-says-it-is-time-to-talk-about-taiwan-becoming-51st-state/ [Accessed 6 Jan. 2024].

45. Roser, M. (2023). *Our World in Data*. [online] Our World in Data. Available at: <https://ourworldindata.org/fertility-rate> [Accessed 8 Jan. 2024].
46. SAP. (n.d.). *The smart grid: How AI is powering today's energy technologies | SAP Insights*. [online] Available at: <https://www.sap.com/ukraine/insights/smart-grid-ai-in-energy-technologies.html> [Accessed 5 Jan. 2024].
47. Schoenfish, M. and Dasgupta, A. (2023). *Energy storage*. [online] IEA. Available at: <https://www.iea.org/energy-system/electricity/grid-scale-storage#tracking> [Accessed 5 Jan. 2024].
48. Shabbir, R. (2023). *The Future of Education: 8 Predictions for the Next Decade*. [online] Educationise. Available at: <https://www.educationise.com/post/the-future-of-education-8-predictions-for-the-next-decade> [Accessed 3 Jan. 2024].
49. Shelbourne, M. (2022). *China's Accelerated Timeline to Take Taiwan Pushing Navy in the Pacific, Says CNO Gilday*. [online] USNI News. Available at: <https://news.usni.org/2022/10/19/chinas-accelerated-timeline-to-take-taiwan-pushing-navy-in-the-pacific-says-cno-gilday> [Accessed 5 Jan. 2024].
50. Szondy, D. (2020). *Rheinmetall's new armed reconnaissance robot also provides fire support*. [online] New Atlas. Available at: <https://newatlas.com/military/rheinmetall-armed-reconnaissance-combat-robot/> [Accessed 5 Jan. 2024].
51. The Conference Board (2023). *Global Economic Outlook | The Conference Board*. [online] conference-board.org. Available at: <https://www.conference-board.org/topics/global-economic-outlook> [Accessed 5 Jan. 2024].
52. United Nations (n.d.). *9.7 billion on Earth by 2050, but growth rate slowing, says new UN population report*. [online] United Nations. Available at: <https://www.un.org/en/academic-impact/97-billion->

earth-2050-growth-rate-slowing-says-new-un-population-report
[Accessed 10 Jan. 2024].

53. United Nations (2020). *Migration*. [online] United Nations. Available at: <https://www.un.org/en/global-issues/migration#:~:text=Some%20people%20move%20in%20search> [Accessed 10 Jan. 2024].
54. United Nations (2024). *Protracted period of low growth looms large, undermining progress on sustainable development, warns UN flagship economic report*. [online] United Nations. Available at: <https://www.un.org/en/desa/protracted-period-low-growth-looms-large-undermining-progress-sustainable-development> [Accessed 5 Jan. 2024].
55. United Nations (n.d.). *The future of the UN: Time to think big, urges Guterres*. [online] United Nations. Available at: <https://www.un.org/en/desa/future-un-time-think-big-urges-guterres> [Accessed 5 Jan. 2024].
56. United Nations (2022). *World Population Prospects 2022: Summary of Results | Population Division*. [online] www.un.org. Available at: <https://www.un.org/development/desa/pd/content/World-Population-Prospects-2022>.
57. United Nations (2023). *UNHCR - The UN Refugee Agency*. [online] Unhcr.org. Available at: <https://www.unhcr.org/> [Accessed 10 Jan. 2024].
58. Urrutia, D.E. (2019). *India's Anti-Satellite Missile Test Is a Big Deal. Here's Why*. [online] Space.com. Available at: <https://www.space.com/india-anti-satellite-test-significance.html> [Accessed 5 Jan. 2024].
59. Ursic, L. (2023). *The Future of Blockchain Is Bright. Here's Why*. [online] Async Labs - Software Development & Digital Agency. Available at: <https://www.asyncclabs.co/blog/sync-with-async/the-future-of-blockchain-is-bright-heres-why/> [Accessed 5 Jan. 2024].
60. USAID (2018). *COUNTRY OVERVIEW*. [online] Available at: <https://www.climatelinks.org/sites/default/files/asset/document/201>

8-02-Mar_CadmusCISF_Climate-Risk-Profile-Bangladesh.pdf

[Accessed 10 Jan. 2024].

61. World Bank (2023a). *A World Bank Group Flagship Report Global Economic Prospects*. [online] Available at: <https://openknowledge.worldbank.org/server/api/core/bitstreams/6e892b75-2594-4901-a036-46d0dec1e753/content> [Accessed 5 Jan. 2024].
62. World Bank (2023b). *GLOBAL OUTLOOK*. [online] Available at: <https://openknowledge.worldbank.org/server/api/core/bitstreams/2106db86-a217-4f8f-81f2-7397feb83c1f/content> [Accessed 5 Jan. 2024].
63. World Obesity Atlas (2023). *World Obesity Atlas 2023*. [online] Available at: https://s3-eu-west-1.amazonaws.com/wof-files/World_Obesity_Atlas_2023_Report.pdf.